TC Energy Investor Day

November 19, 2019

TC Energy

Forward looking information and non-GAAP measures

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, intend 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 and earnings growth and the future growth of our core businesses, among other things.

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, our ability to implement a capital allocation strategy aligned with maximizing shareholder value, the operating performance of our pipeline and power and storage assets, amount of capacity sold and rates achieved in our pipeline businesses, the amount of capacity payments and revenues from our power generation assets due to plant availability, production levels within supply basins, construction and completion of capital projects, costs for labour, equipment and materials, the availability and market prices of commodities, access to capital markets on competitive terms, interest, tax and foreign exchange rates, performance and credit risk of our counterparties, regulatory decisions and outcomes of legal proceedings, including arbitration and insurance claims, changes in environmental and other laws and regulations, our ability to effectively anticipate and assess changes to government policies and regulations, competition in the pipeline, power and storage sectors, unexpected or unusual weather, acts of civil disobedience, cyber security and technological developments, and economic conditions in North America as well as globally. You can read more about these risks and others in our October 31, 2019 Quarterly Report to Shareholders and 2018 Annual Report filed with Canadian securities regulators and the SEC and available at www.tcenergy.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 directly comparable GAAP measures are included in this presentation and in our October 31, 2019 Quarterly Report to Shareholders filed with Canadian securities regulators and the SEC and available at www.tcenergy.com.

Strategic Overview

Russ Girling
President and Chief Executive Officer

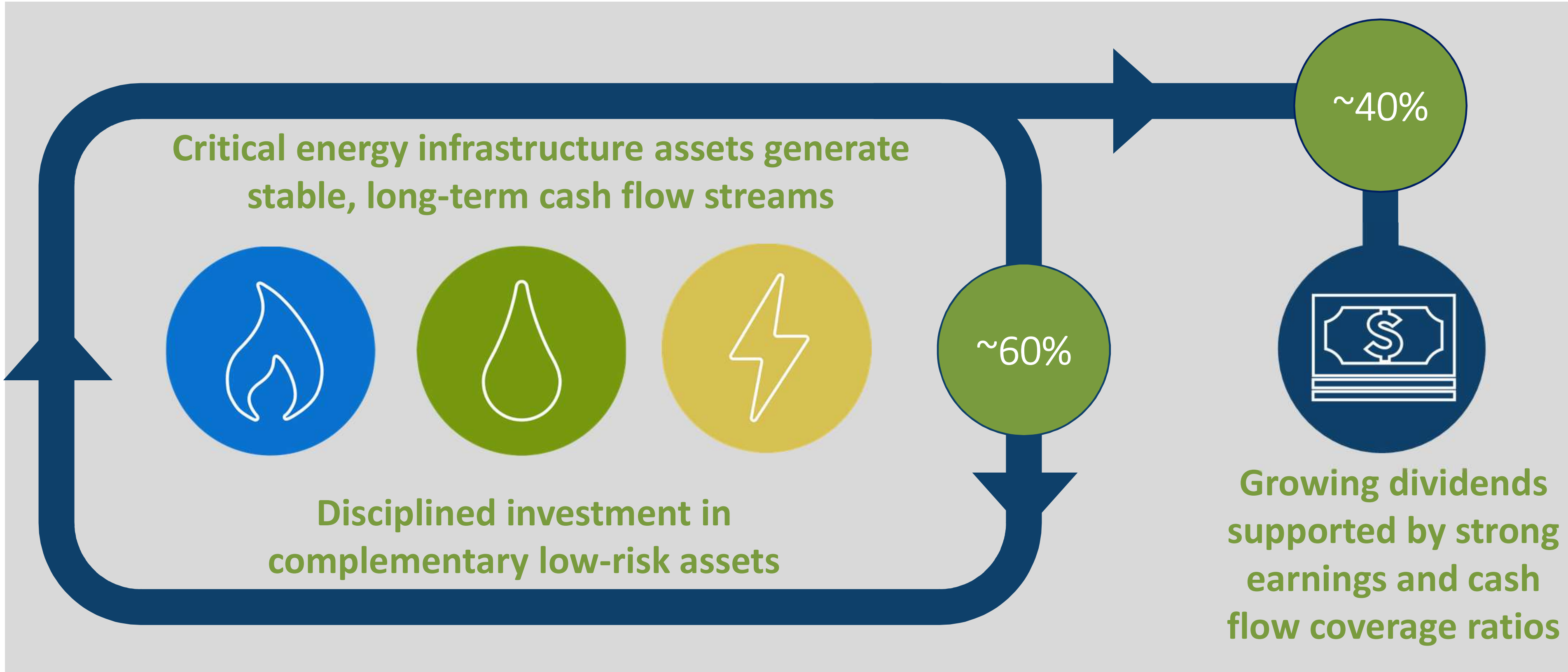
Our long-term success is driven by our fundamental belief that …

- Global energy demand, including the demand for natural gas and oil, will continue to grow
- Our proven, low-risk business model will produce solid results during all phases of the economic cycle
- Our broad network of high-quality, long-life assets is a significant competitive advantage
- Our people have the technical expertise and commercial skills to navigate a constantly changing world
- Our financial strength and flexibility will allow us to maximize shareholder value

Our purpose is to deliver the energy people need, every day.
Safely. Responsibly. Collaboratively. With integrity.



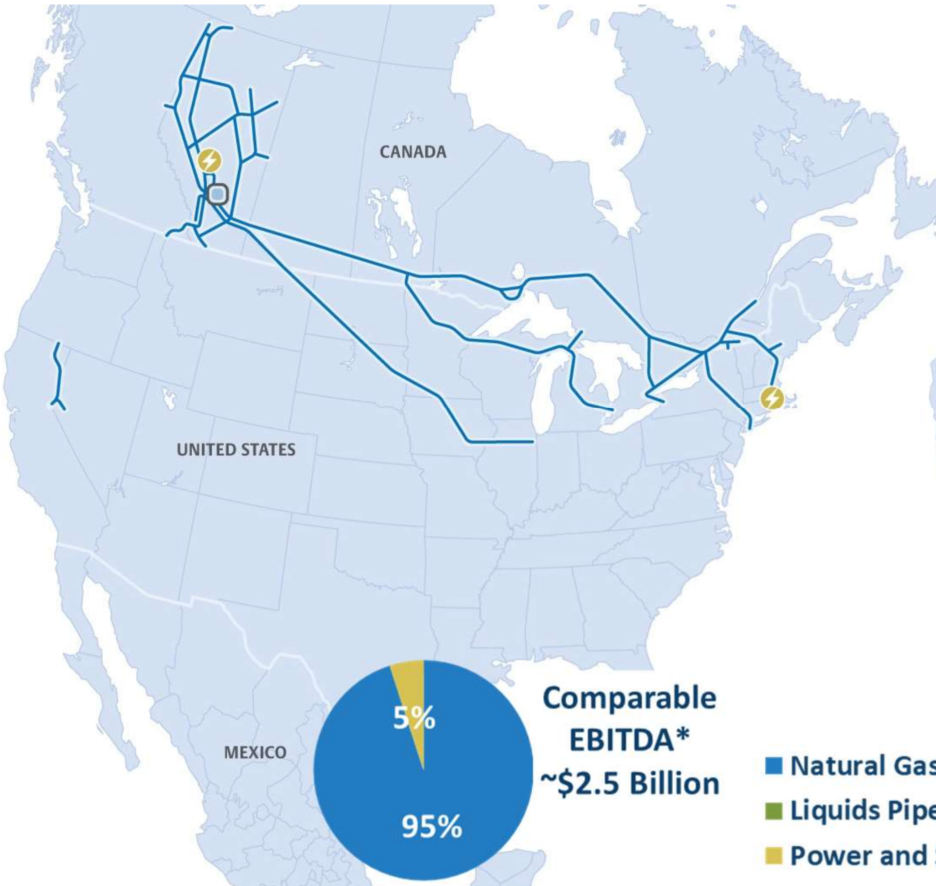
Proven capital allocation framework delivers results



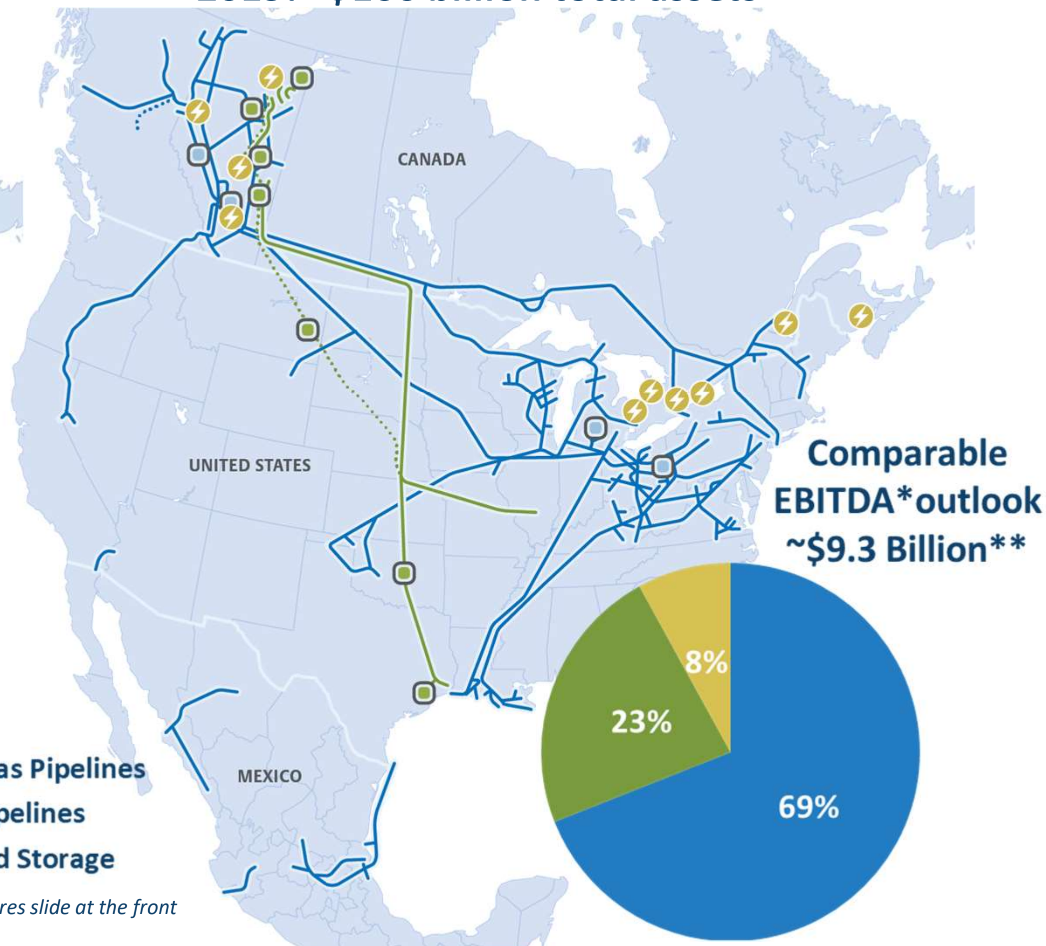
Produced double-digit average annual total shareholder return since 2000

Invested ~$100 billion in three core businesses since 2000

2000: ~$20 billion total assets



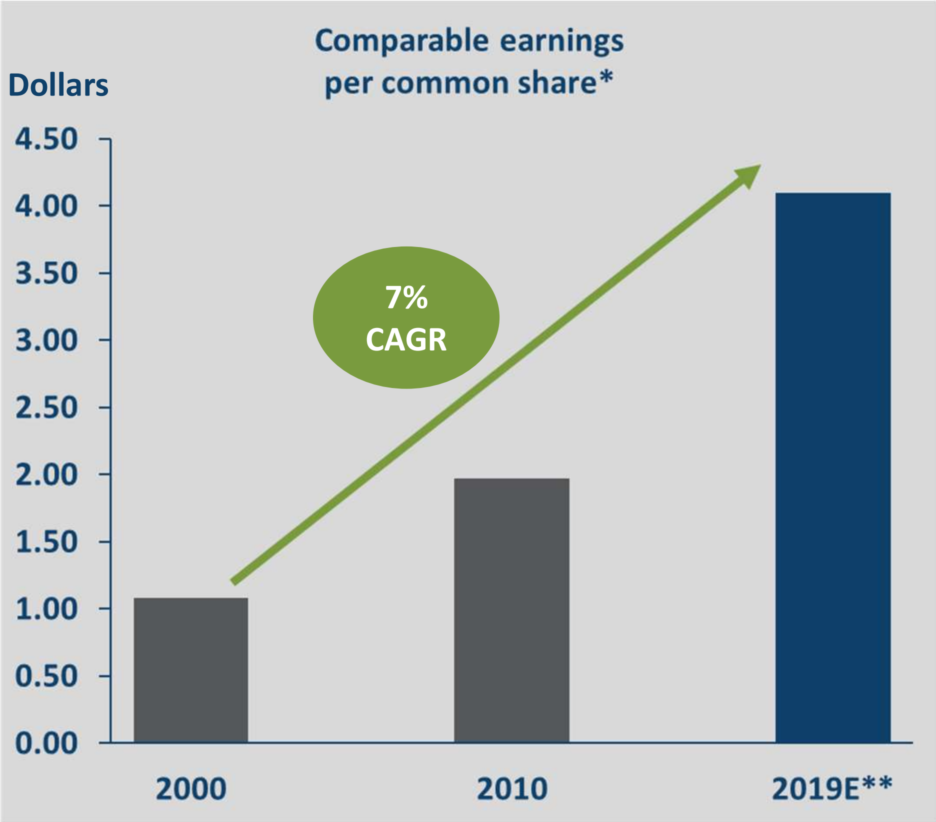
2019: ~$100 billion total assets

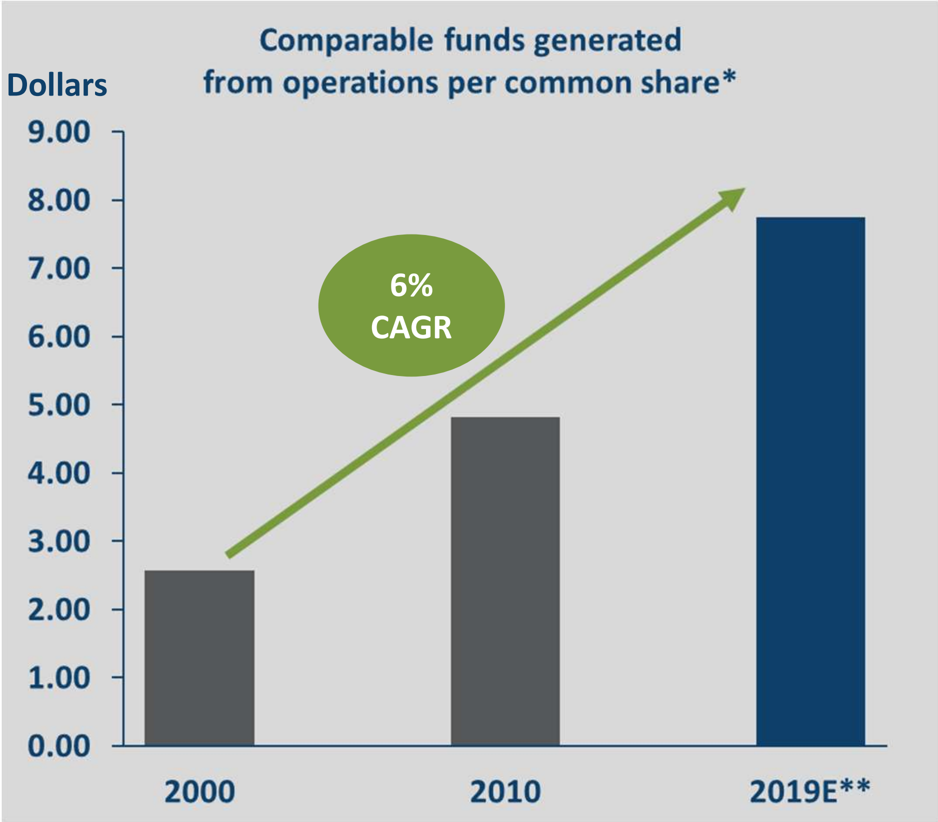


- Natural Gas Pipelines
- Liquids Pipelines
- Power and Storage

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information. **Represents consensus estimate values.*

Investment has created significant value

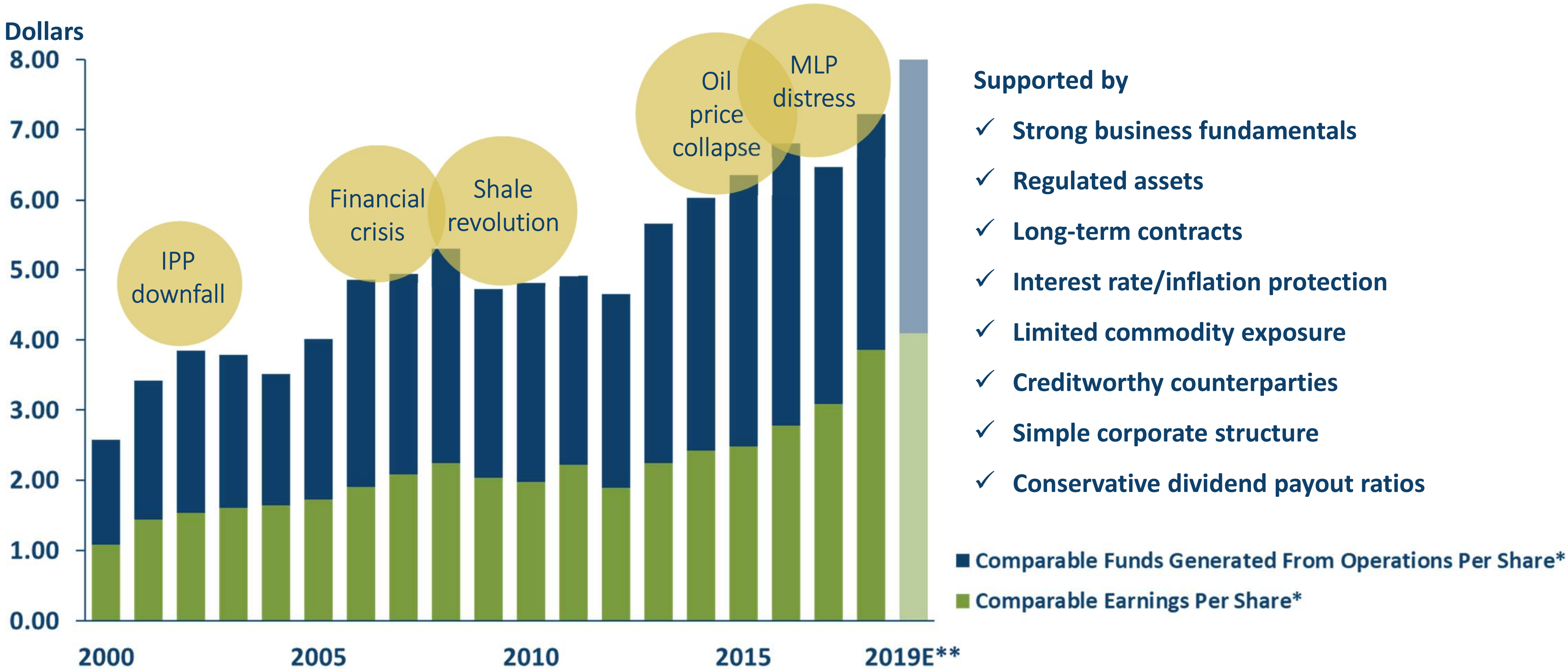




Substantial growth in earnings and cash flow per share

**Comparable earnings per common share and comparable funds generated from operations per common share are non-GAAP measures. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information. **2019E represents consensus estimate values.*

Low-risk business model has consistently produced results



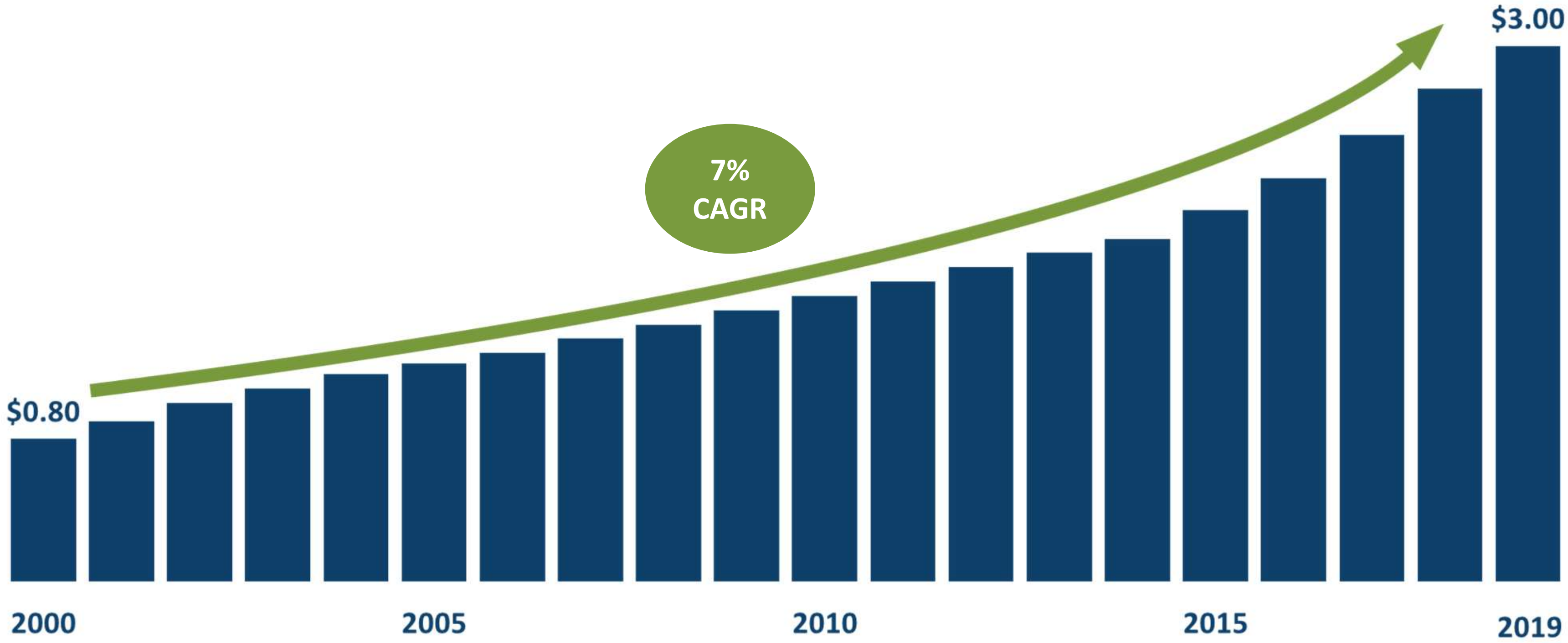
Supported by

- ✓ **Strong business fundamentals**
- ✓ **Regulated assets**
- ✓ **Long-term contracts**
- ✓ **Interest rate/inflation protection**
- ✓ **Limited commodity exposure**
- ✓ **Creditworthy counterparties**
- ✓ **Simple corporate structure**
- ✓ **Conservative dividend payout ratios**

Resiliency through all phases of the economic cycle

**Comparable earnings per common share and comparable funds generated from operations per common share are non-GAAP measures. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information. **2019E represents consensus estimate values.*

Nineteen consecutive years of common share dividend increases



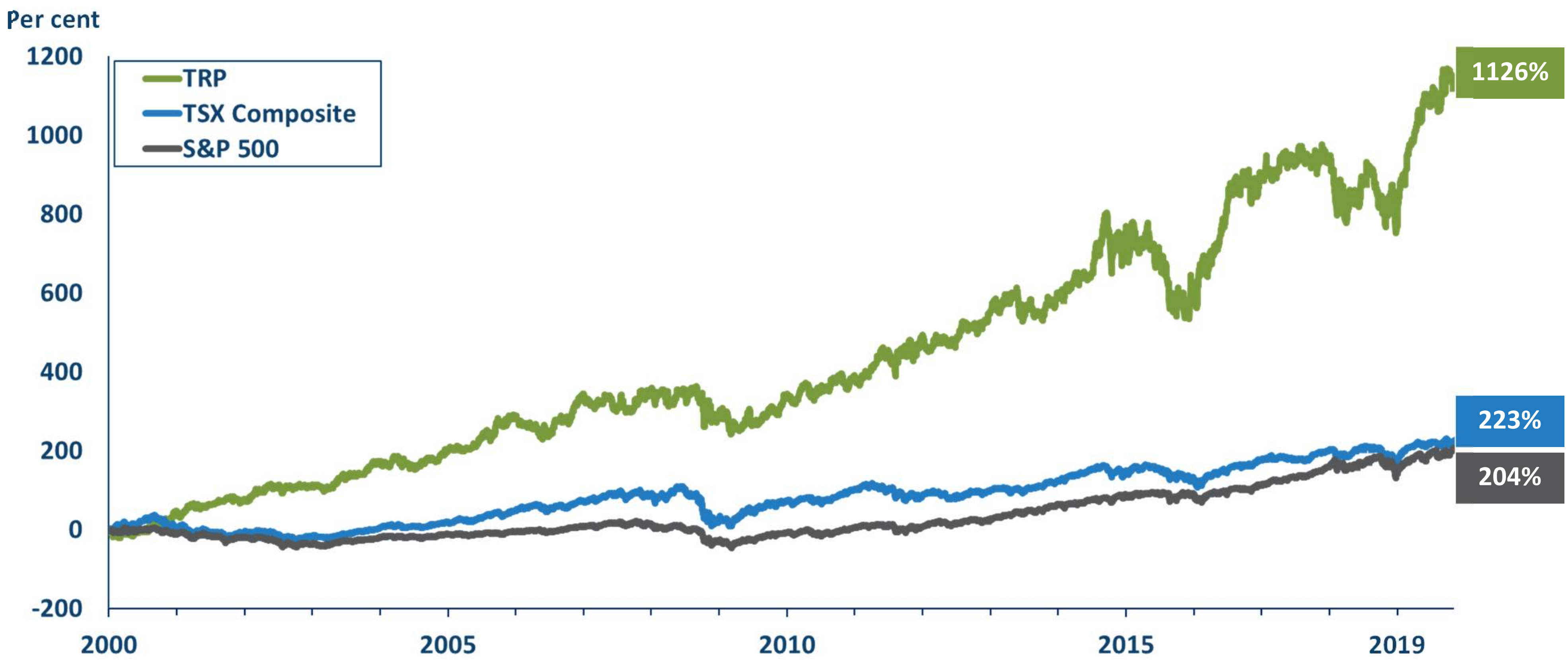
Supported by growth in earnings and cash flow and strong coverage ratios

Performance has resulted in significant share price appreciation

14 per cent average annual total shareholder return since 2000

Source: FactSet data from January 1, 2000 to October 31, 2019

Superior total shareholder return



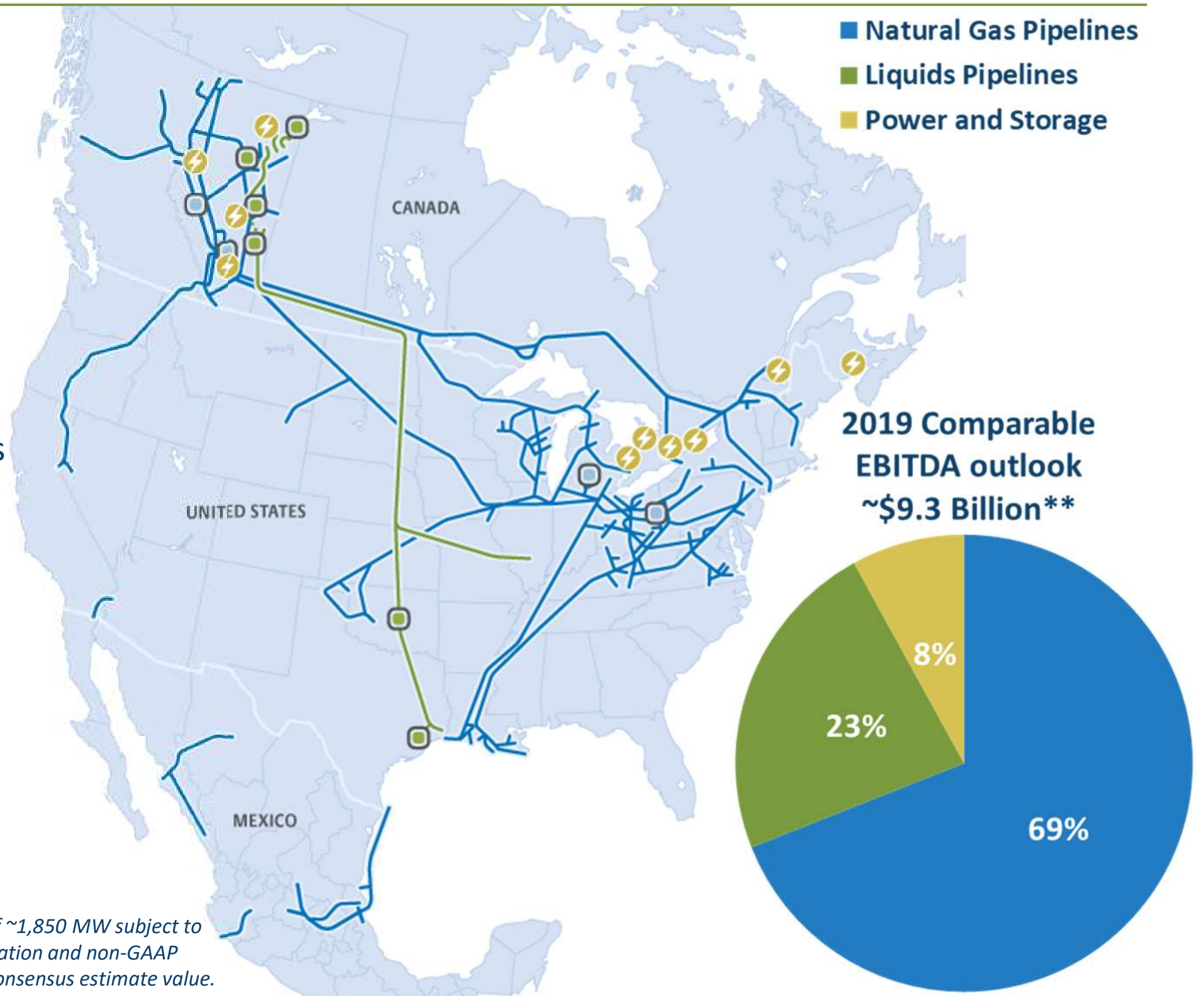
Outperforming broader market

Source: FactSet data from January 1, 2000 to October 31, 2019

A leading North American energy infrastructure company

- **One of North America's largest natural gas pipeline networks**
  - 92,600 km (57,500 mi) of pipeline
  - 653 Bcf of storage capacity
  - 23 Bcf/d; ~25% of continental demand
- **Premier liquids pipeline system**
  - 4,900 km (3,000 mi) of pipeline
  - 590,000 Bbl/d Keystone System transports ~20% of Western Canadian exports
- **One of the largest private sector power generators in Canada**
  - 10 power plants, 6,000 MW*
  - Primarily long-term contracted assets

Delivering the energy people need, every day



** Includes Halton Hills, Portlands and Napanee (under construction) with a combined capacity of ~1,850 MW subject to sale agreement. **Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information. 2019 outlook represents consensus estimate value.*

Major 2019 Accomplishments

✓ **Generated record financial results through the first nine months**
- Comparable earnings were $3.11 per share, up 10 per cent
- Comparable funds generated from operations of $5.3 billion, up 14 per cent

✓ **Advanced $30 billion secured capital program**
- Expect to place ~$10 billion of projects into service; secured $3.2 billion of new projects

✓ **Progressed over $20 billion of projects under development**
- Keystone XL and Bruce Power life extension program continue to advance

✓ **Significant steps taken to fund secured capital program and strengthen balance sheet**
- Monetized $6.3 billion of mature assets; on track to achieve targeted credit metrics

✓ **Returned to historical self-funding model**
- No longer issuing common shares from treasury under Dividend Reinvestment Program

Good progress being made on strategic priorities

Six key strategic priorities

Deliver
energy safely and reliably, every day

Maximize
value of our $100 billion asset base

Execute
$30 billion secured capital program on-time, on-budget

Advance
over $20 billion of projects under development

Cultivate
a portfolio of additional low-risk growth opportunities

Maintain
our financial strength and flexibility

Deliver superior long-term shareholder returns

Environmental, Social and Governance commitment

E S G

Safety and reliability are critical priorities

- Operating objectives, targets and results
- Zero is real

Long history of working collaboratively with stakeholders

- Customers, landowners, Indigenous groups, governments, regulators and local communities
- Active throughout the life-cycle: development, construction, operations

Committed to protecting the environment

- 100,000+ acres of land reclaimed
- 75+ environmental partnerships to conserve natural habitats

Adhere to the highest standards of corporate governance

- Consistent top-tier performance in independent governance assessments
- 25% women on the Board, with 30% diversity policy target by end of 2020

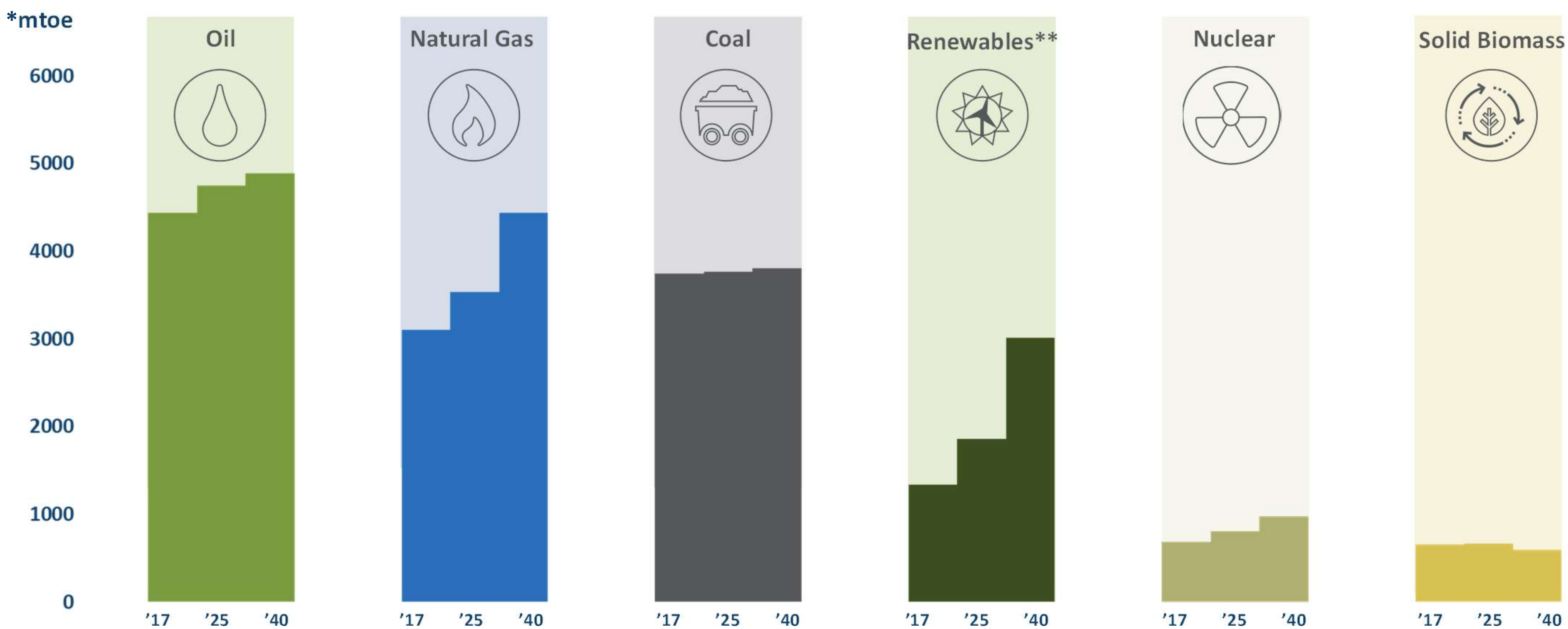
Living by our values of safety, responsibility, collaboration and integrity

Delivering the energy people need, every day

E S G

- Investing over $1 billion annually in pipeline integrity
- Monitoring pipelines 24 hours a day from control centres
- Conducting over 100 emergency response training exercises each year
- Working with approximately 100,000 landowners
- Engaging with more than 100 Indigenous groups
- HSSE Committee reports to the Board on health, safety, sustainability and environment
- Report on sustainability and climate change published in 2019

Global energy demand forecast to grow through 2040

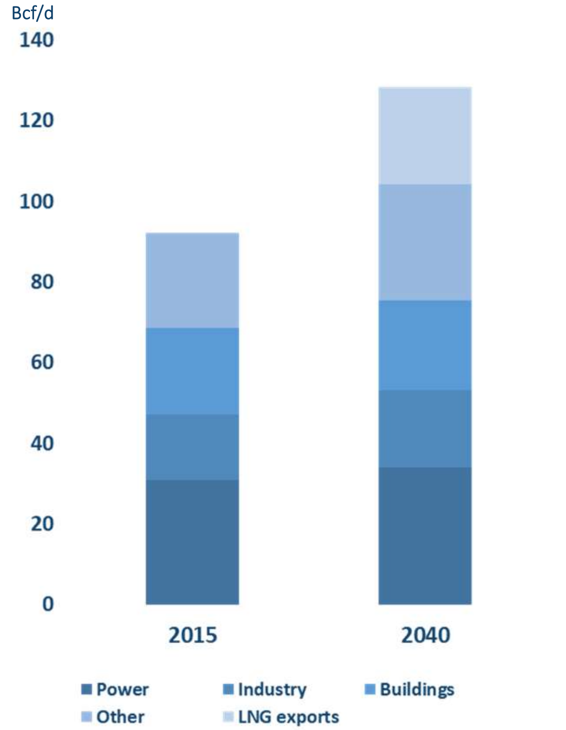


Over half of global demand fulfilled by oil and natural gas through 2040

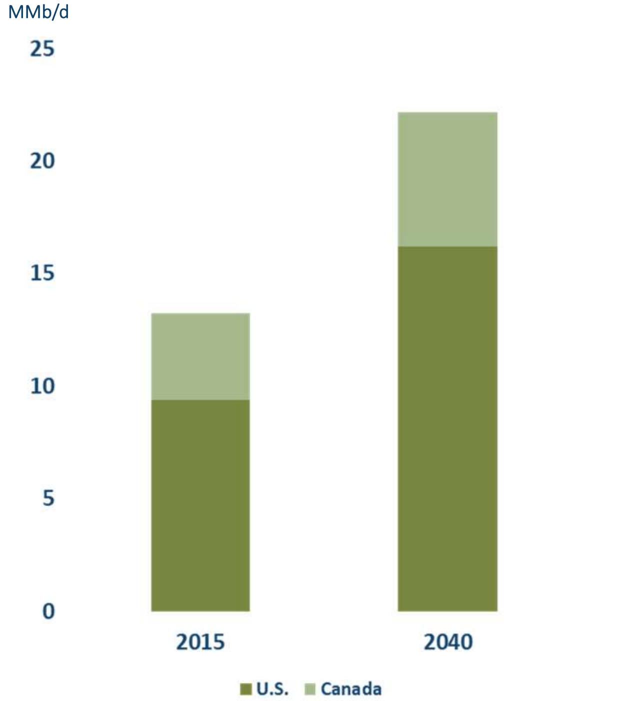
Source: IEA World Energy Outlook 2018, New Policies Scenario
**million tonnes of oil equivalent (mtoe)*
*** includes hydro, modern biomass and other*

North American industry fundamentals through 2040

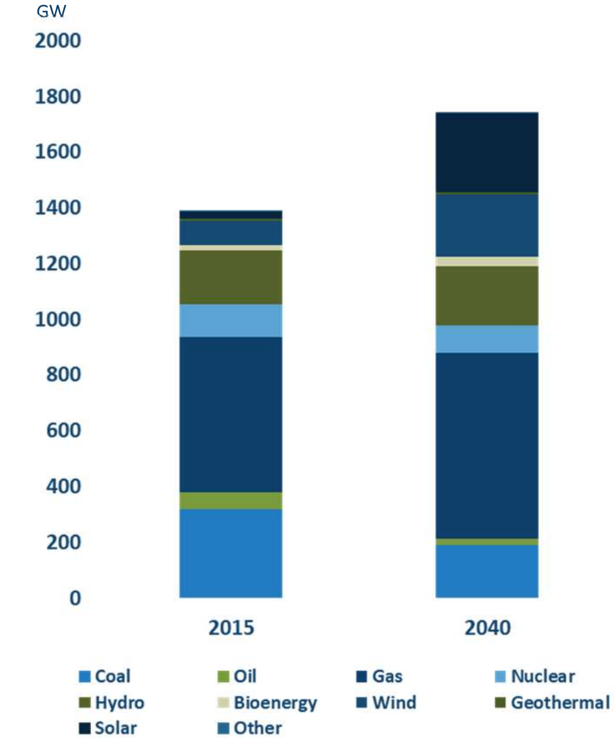
North American Natural Gas Demand and LNG Exports, 2015 and 2040*



North American Crude Oil Production, 2015 and 2040*



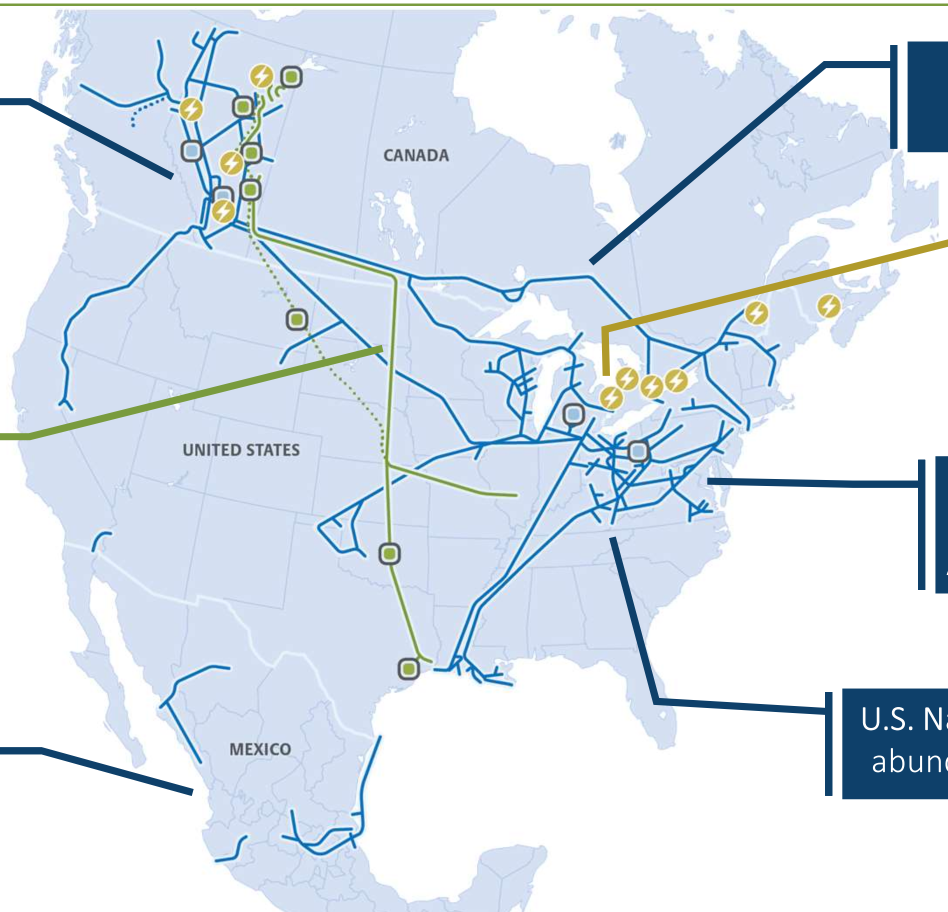
North American Power Capacity, 2015 and 2040*



Highlights the need for new energy infrastructure

**Source: IEA World Energy Outlook 2018, New Policies Scenario*

Asset footprint provides a strong competitive advantage



NGTL System is uniquely positioned over 924 Tcf of WCSB natural gas resources

Keystone corridor provides a direct link to world's largest heavy oil refining market

Mexico Natural Gas Pipelines forming backbone of country's infrastructure

Canadian Mainline is a critical conduit to eastern markets

Bruce Power generates ~30% of Ontario's power

Columbia Gas has an incumbent position over 1,456 Tcf of Appalachian natural gas resources

U.S. Natural Gas Pipelines connect abundant supply to key markets

Ample opportunities for in-corridor growth

Line of sight to over $50 billion of growth opportunities

Natural Gas Pipelines

- NGTL expansions
- Columbia expansions
- Coastal GasLink
- Numerous other in-corridor opportunities

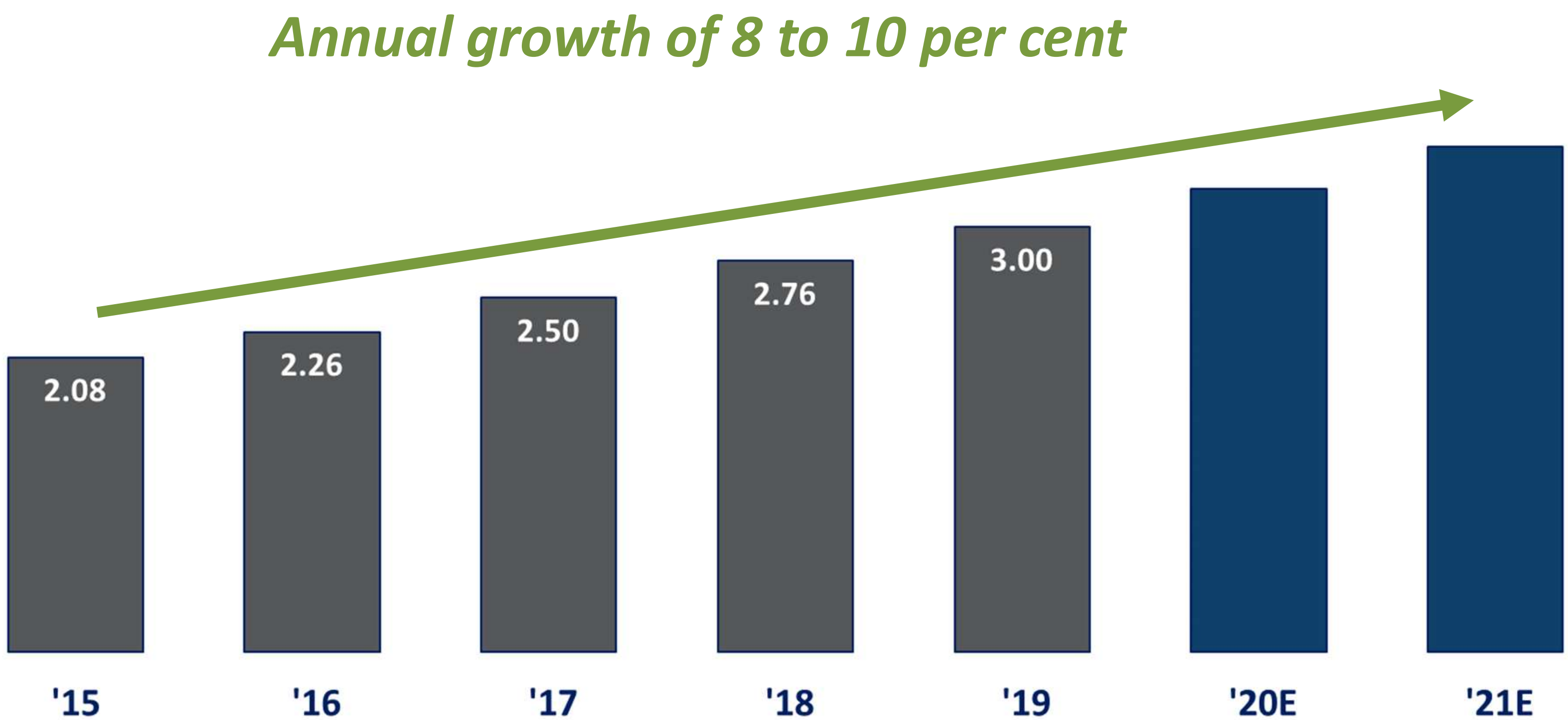
Liquids Pipelines

- Keystone XL
- Grand Rapids Phase II
- Heartland Pipeline and TC Terminals
- Keystone Hardisty Terminal

Power and Storage

- Bruce Power Life Extension
- Other growth in contracted power

Dividend growth outlook through 2021



Supported by existing asset base and $30 billion secured capital program

Dividend growth outlook beyond 2021

5-7%
per year

- Consistent with long-term performance
- Stemming from abundant organic growth opportunities
- Financed using historical self-funding model
- Transformational opportunities could supplement growth rate

Combination of growth and yield has delivered annual double-digit total shareholder returns

Our Executive Leadership Team

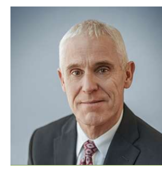
Russ Girling
President and Chief Executive Officer

Don Marchand
Executive VP and Chief Financial Officer

Stan Chapman
Executive VP and President,
U.S. Natural Gas Pipelines

Wendy Hanrahan
Executive VP, Corporate Services

Patrick Keys
Executive VP, Stakeholder Relations
and General Counsel



Paul Miller
Executive VP, Technical Centre
and President, Liquids Pipelines

Francois Poirier
Executive VP, Corporate Development
and Strategy, and President, Power
& Storage and Mexico

Tracy Robinson
Executive VP and President,
Canadian Natural Gas Pipelines

Leslie Kass
Senior VP, Technical Centre

Strategic Overview

Russ Girling
President and Chief Executive Officer

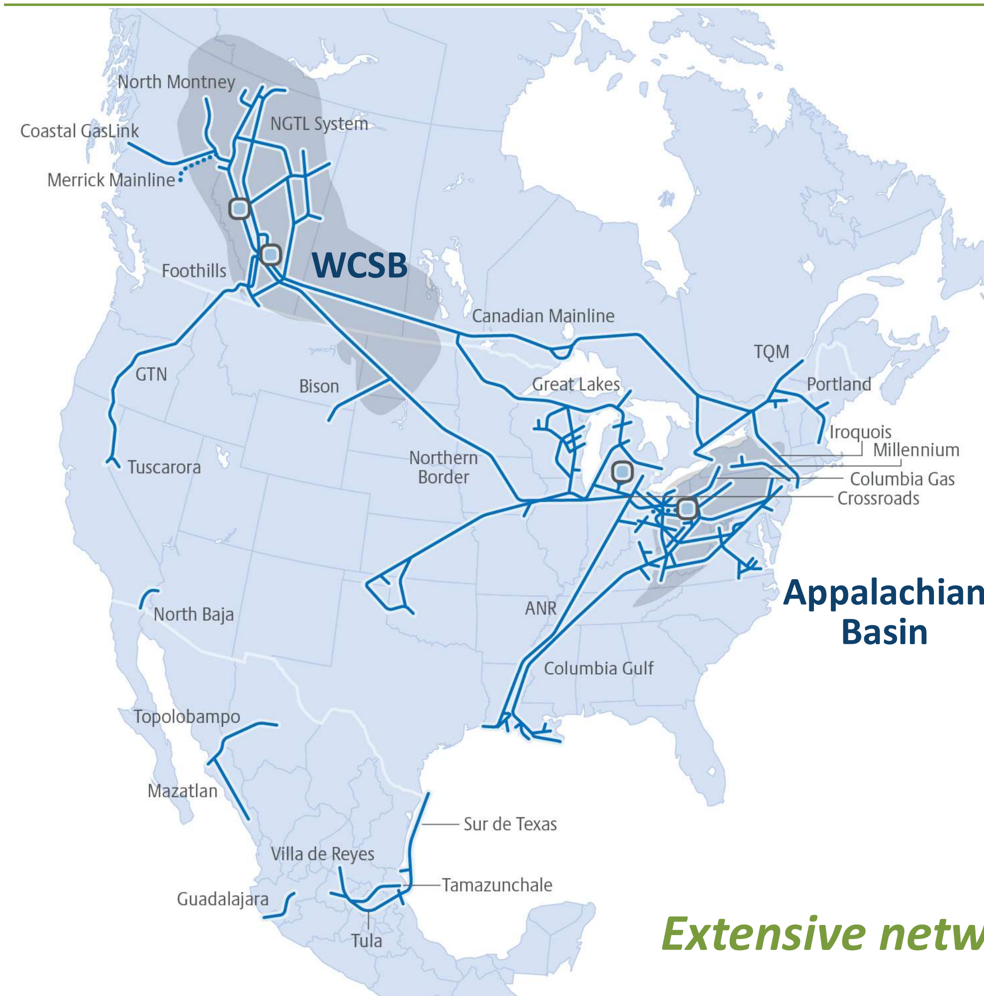
TC Energy

Canadian Natural Gas Pipelines

Tracy Robinson
Executive Vice-President and President, Canadian Natural Gas Pipelines

TC Energy

Unparalleled footprint is a competitive advantage



High-quality asset footprint cannot be replicated

- 92,600 km (57,500 mi) of natural gas pipelines
- 653 Bcf of storage capacity

Access to abundant, cost-competitive supply

- Assets on top of two of the most prolific, low-cost basins in North America
- 4,762 Tcf of remaining resource

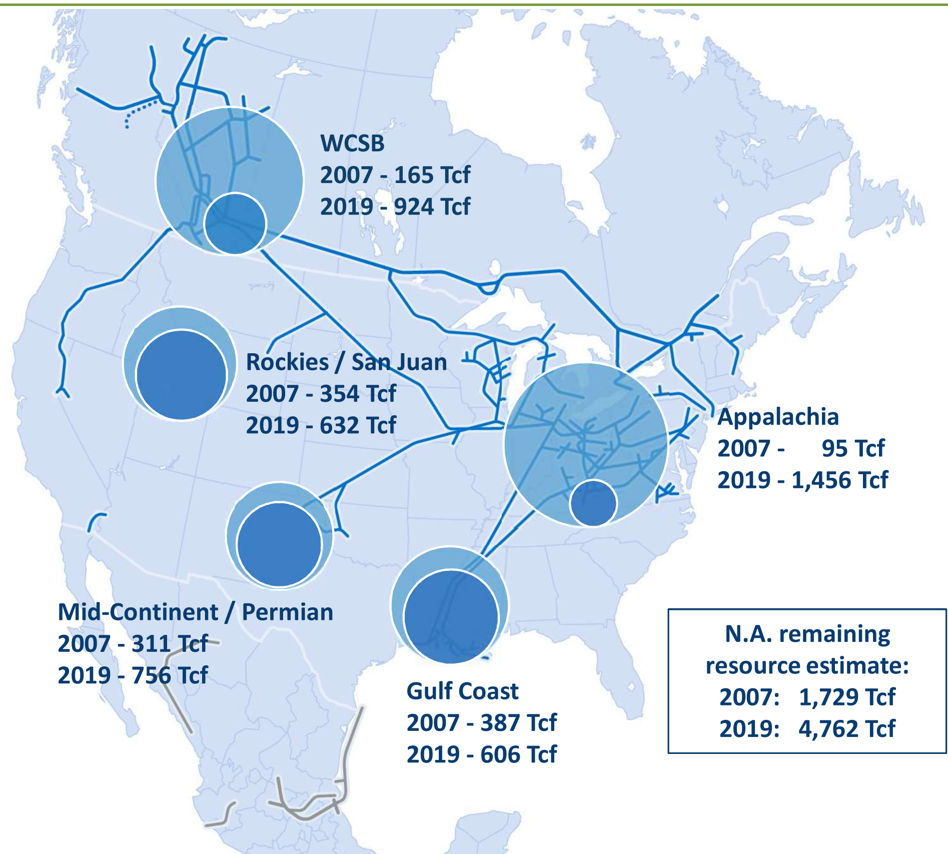
Connectivity to key markets

- Delivers ~25% of continental demand
- Growing North American gas demand, driven by global LNG requirements and continental power generation

Extensive network of critical gas infrastructure

Abundant, low-cost supply

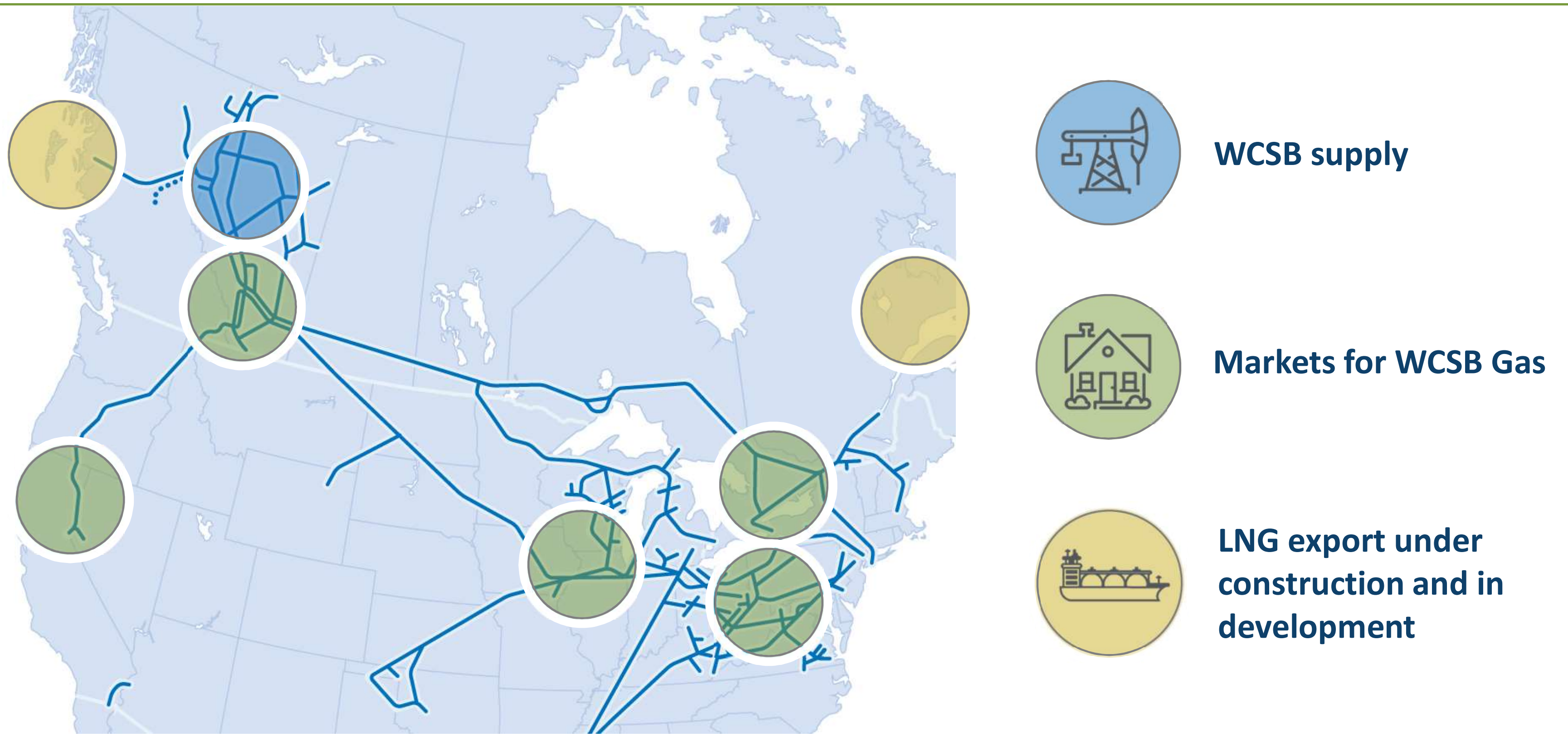
- North American resource estimate has grown over 250% since 2007
- Over 100 years of recoverable supply
- WCSB and Appalachia are the fastest-growing production basins



Resource estimates in the WCSB and Appalachia have grown significantly

Source: TC Energy, U.S. Energy Information Agency, U.S. Potential Gas Committee

System connects WCSB supply to key domestic and global markets



Abundant, low-cost WCSB supply is highly competitive in North America and globally

Transformational shift in Canadian Natural Gas Pipelines

2010	2019	2023+
NGTL and Mainline underutilized	*Increasing WCSB competitiveness*	*High-quality expansion*

2010

- Delivered 9.4 Bcf/d to market
- $11.5 billion investment base
- Open capacity available
- Extensive reliance on interruptible service
- Rate-regulated contract terms

2019

- Delivered 12 Bcf/d to market
- $15.7 billion investment base
- Nearing full utilization
- Shift to firm-service commitments
- Rate-regulated and longer-term contracts
- Abundant supply seeking new markets

2023+

- Connecting 5.6 Bcf/d of new market
- $23.4 billion* investment base
- System fully utilized
- Growing demand for firm service
- Longer-term contracts
- International access for WCSB

Expanding WCSB market access

**Assumes TC Energy ownership of a 25% equity interest in Coastal GasLink*

2019 – Continuing to deliver on our commitments

Execute

$17 billion capital program

Safe and reliable operations

Advancing 3.5 Bcf/d NGTL program

Constructing 2.1 Bcf/d
Coastal GasLink project

Maximize

Improving utilization of our assets

Solidifying regulatory framework

Pipeline utilization at or near capacity

Adding term and certainty

Cultivate

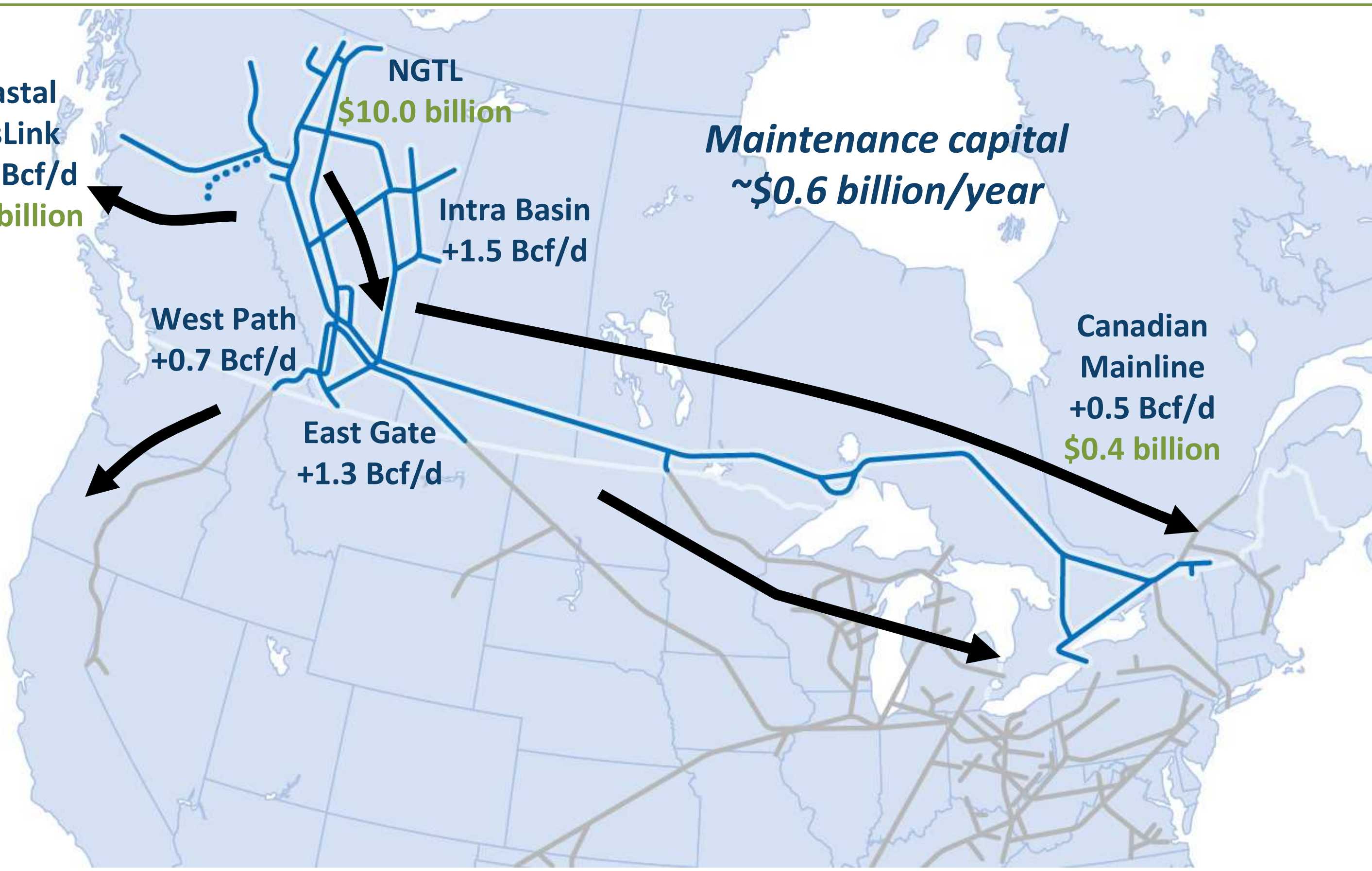
Continued growth in our capacity to access market

$1.2 billion West Path expansion

$200 million Mainline and Eastern Canadian expansions

Positioning for the next wave of growth

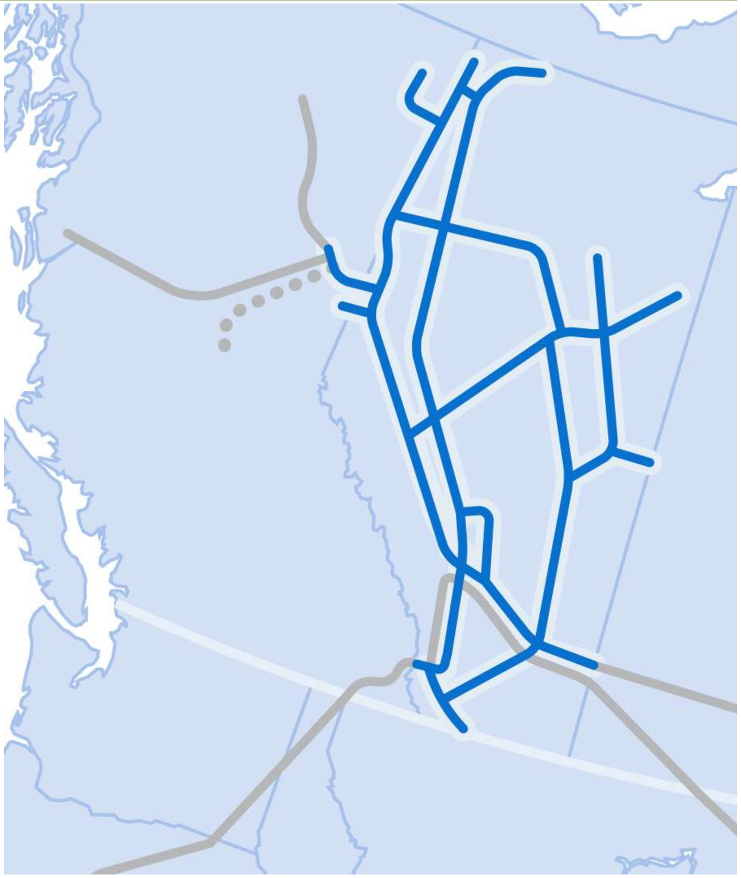
Capital expansion program adding egress for WCSB gas



$17 billion capital program provides 5.6 Bcf/d of incremental market through 2023

Expanding WCSB access to market – NGTL

- $10 billion capital program underway
- Expand access to markets and reduce system constraints
- Increase access to low-cost North Montney supply
- Continue to facilitate growth of local markets
- Advance rate design and revenue requirement
- Portfolio of predominantly strong, creditworthy customers
- Committed to long-term sustainability and emissions reductions

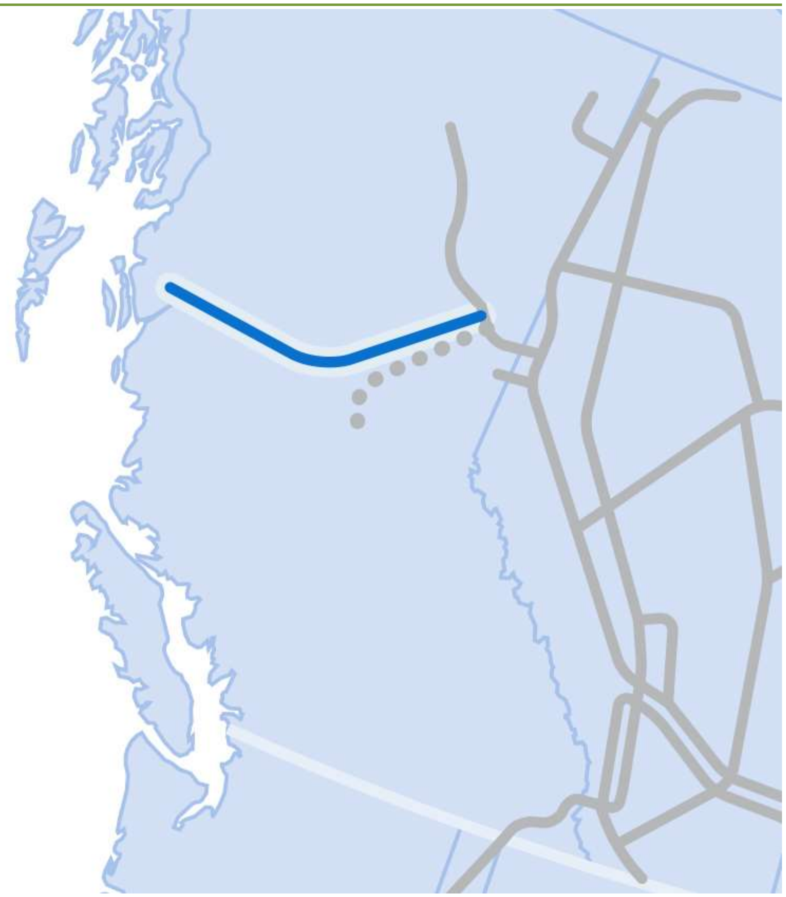


Improving customer offerings

Expanding WCSB access to market – Coastal GasLink

- LNG Canada phase 1 capacity of 2.1 Bcf/d, $6.6 billion capital cost
- LNG Canada phase 2 expansion potential to 5 Bcf/d
- Construction underway
- $700 million invested to date
- Advancing sale of 75% equity interest and project debt financing

First direct access to Asian markets for WCSB production



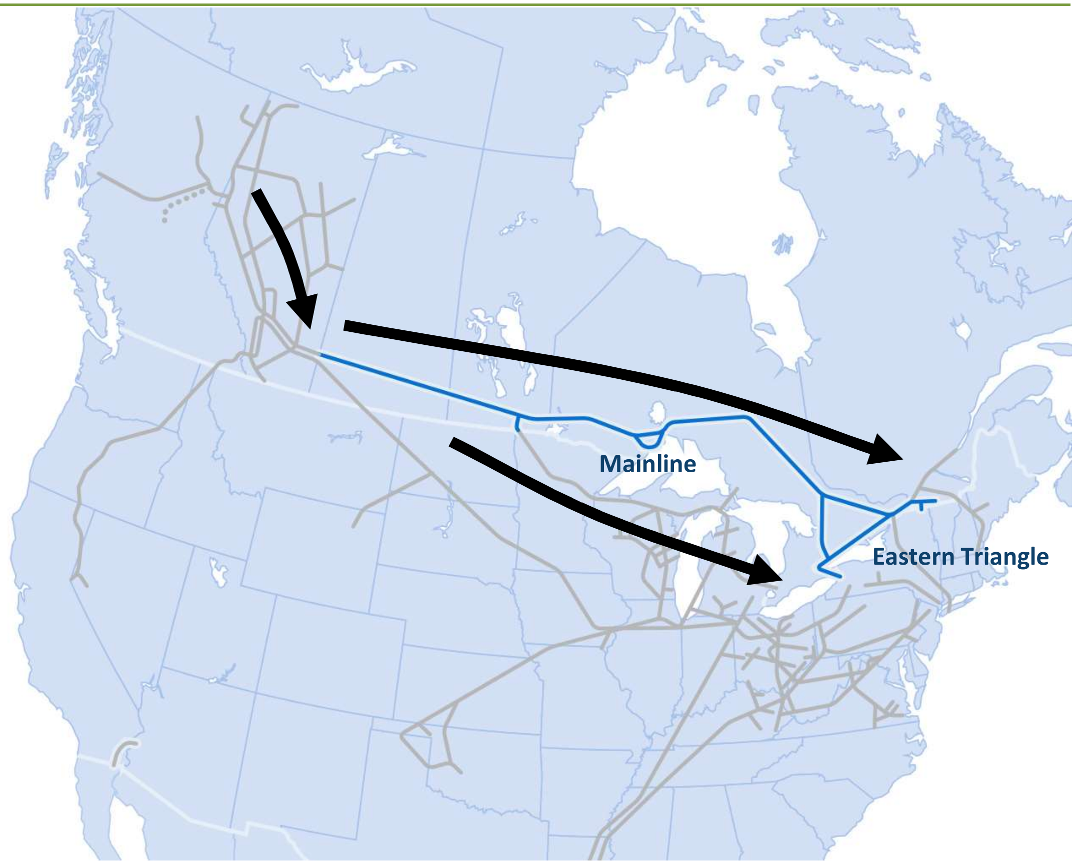
Partnering with the community – Coastal GasLink

- High degree of alignment and partnerships with communities and Indigenous groups
- Project agreements with elected leadership of all 20 First Nations along the route
- Targeting $1 billion in local and Indigenous spend, including $620 million in designated contracts and $400 million in targeted contracts
- In partnership with LNG Canada, exports will significantly reduce global GHG emissions

Strong alignment with Aboriginal rights holders and communities

Critical conduit to Eastern markets – Canadian Mainline

- $400 million capital expansion
- Strong demand for Mainline and Eastern Triangle capacity
- Reclaiming eastern market share
- Contract term increasing
- Collaborating with customers to design post-2020 service framework



Working to optimize capacity and improve throughput

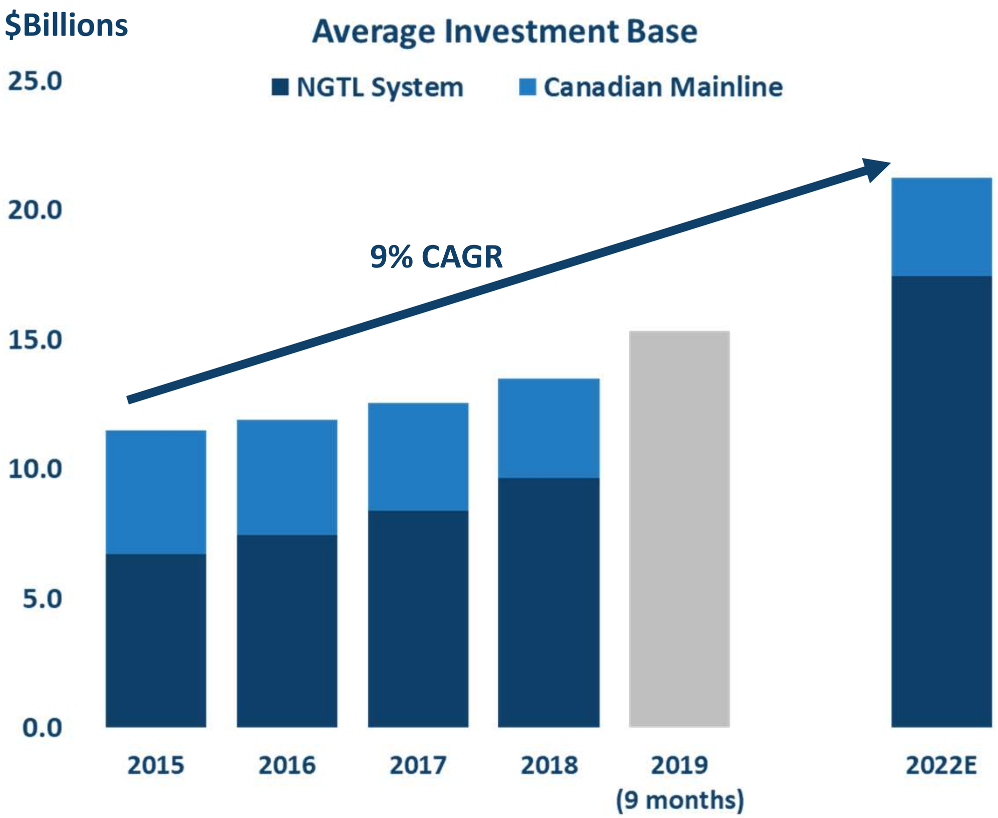
Future growth opportunities

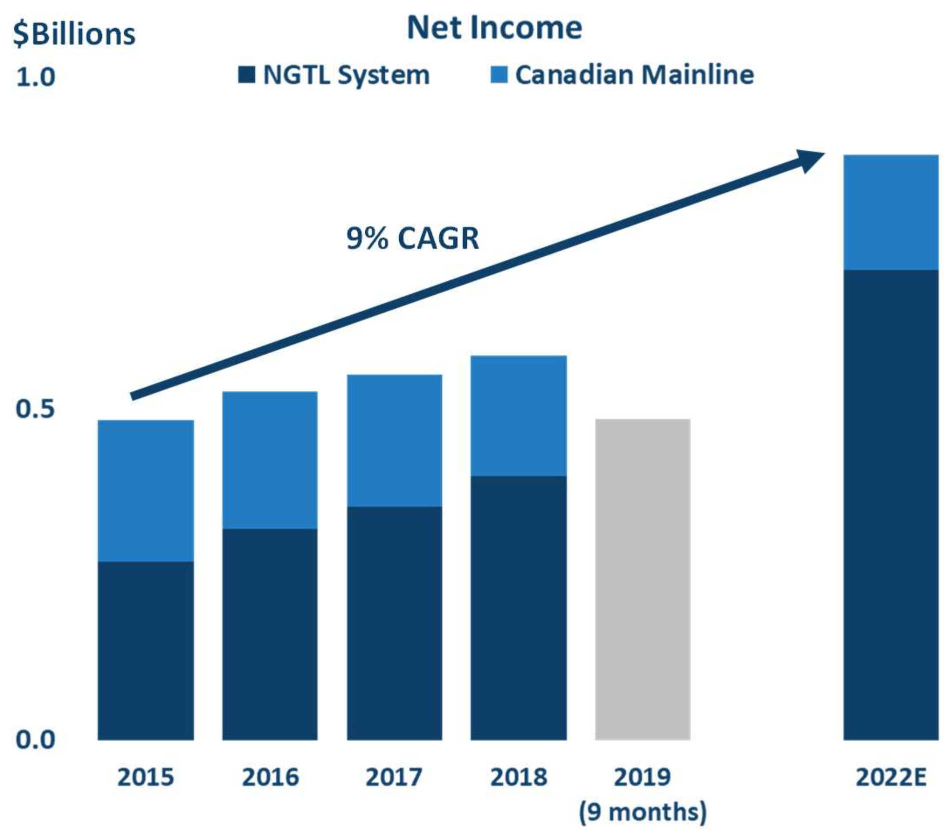
Opportunities under development

1. Intra-basin
2. Merrick Mainline
3. Access to West Coast LNG
4. Access to East Coast LNG
5. Incremental market access in Canada and the U.S.
6. Mainline/PNGTS Expansion

Positioned to capture high-quality growth

Average Investment Base and Net Income outlook*





Significant growth – positioned for continued success

**See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Looking ahead

Execute

Operate safely and reliably

Execute NGTL and Mainline capital program

Construct Coastal GasLink

Implement ongoing sustainability initiatives

Maximize

Optimize utilization

Complete regulatory applications

Develop flexible service offerings

Engage proactively with stakeholders and regulators

Cultivate

Expand WCSB reach

Leverage Canada/U.S. footprint

Secure the next wave of growth opportunities

Deliver superior long-term shareholder returns

Canadian Natural Gas Pipelines

Tracy Robinson
Executive Vice-President and President, Canadian Natural Gas Pipelines

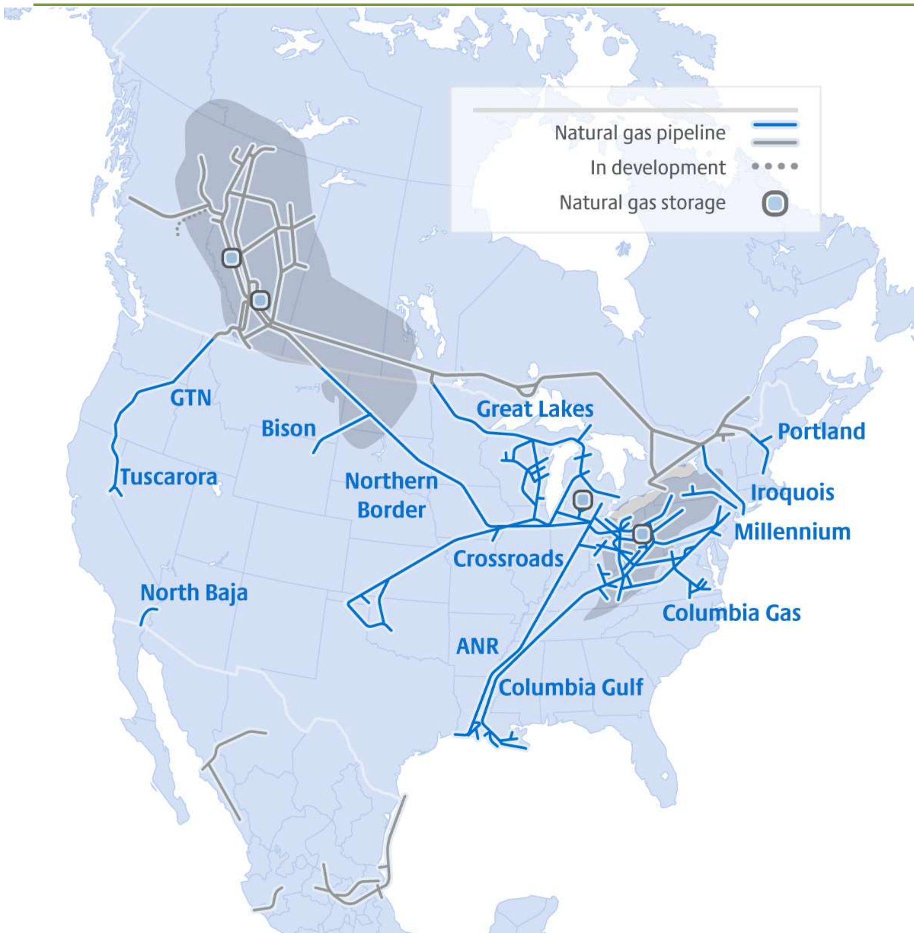
TC Energy

U.S. Natural Gas Pipelines

Stan Chapman
Executive Vice-President and President, U.S. Natural Gas Pipelines

TC Energy

U.S. Natural Gas Pipelines system overview



Broad national network

- ~31,000 miles (50,000 km) of FERC-regulated pipelines with operations across 40 states
- 535 Bcf of regulated storage
- Serves ~25% of U.S. natural gas demand

Diversified assets with strong base in advantaged basins

- Best in class footprint across Appalachian basin (25% of Appalachia supply is transported on our assets)
- Provides market outlets for WCSB natural gas (33% of WCSB molecules are transported on our assets)

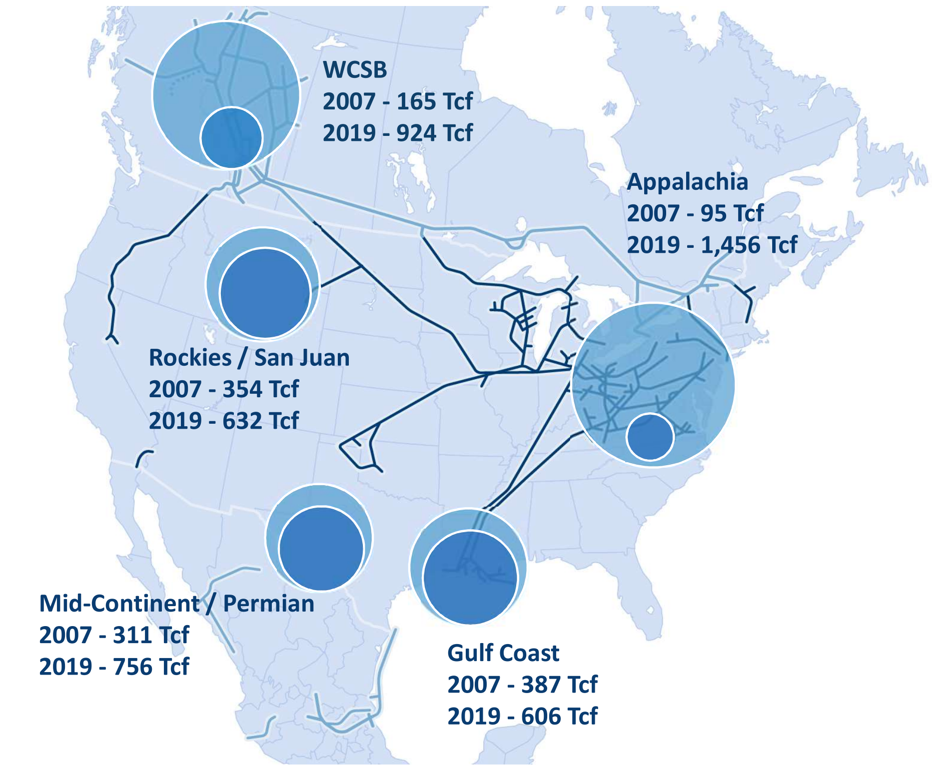
Unparalleled connectivity to key markets

- Send supply, directly or indirectly, to five existing LNG facilities while developing projects for three others
- Power generation and key interconnects
- Traditional LDC markets

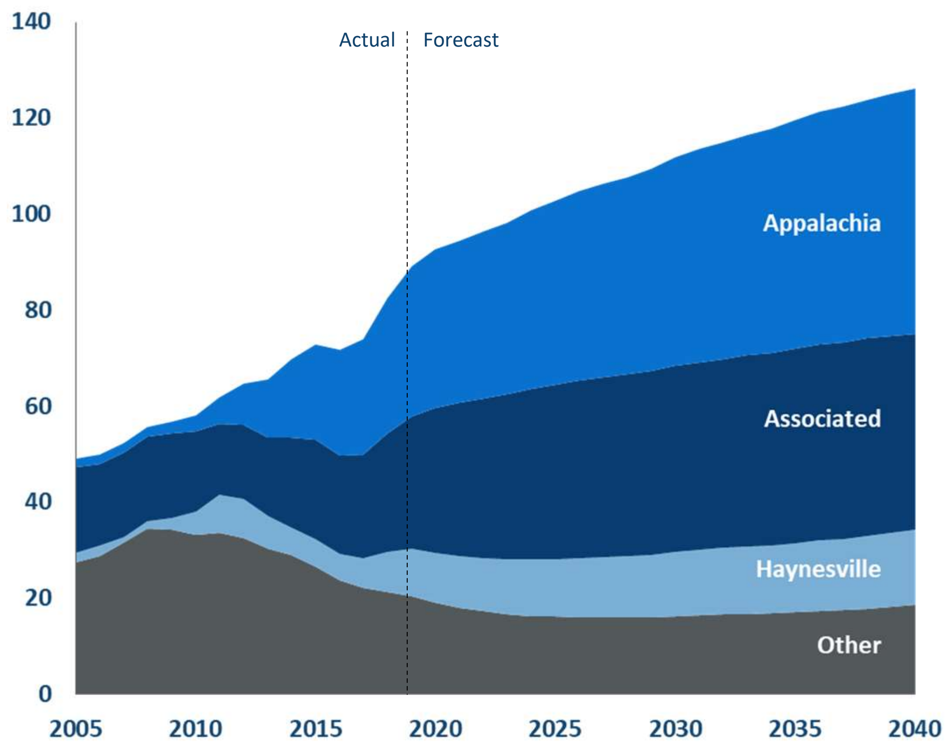
**GTN, Tuscarora, North Baja, Bison, Northern Border and Portland interests, together with 46% of Great Lakes and 49% of Iroquois, are held within TC PipeLines, LP of which TC Energy's ownership is approximately 25%*

Extensive asset footprint over prolific natural gas supplies

U.S. and Canadian Reserves



Lower 48 Production (Bcf/d)

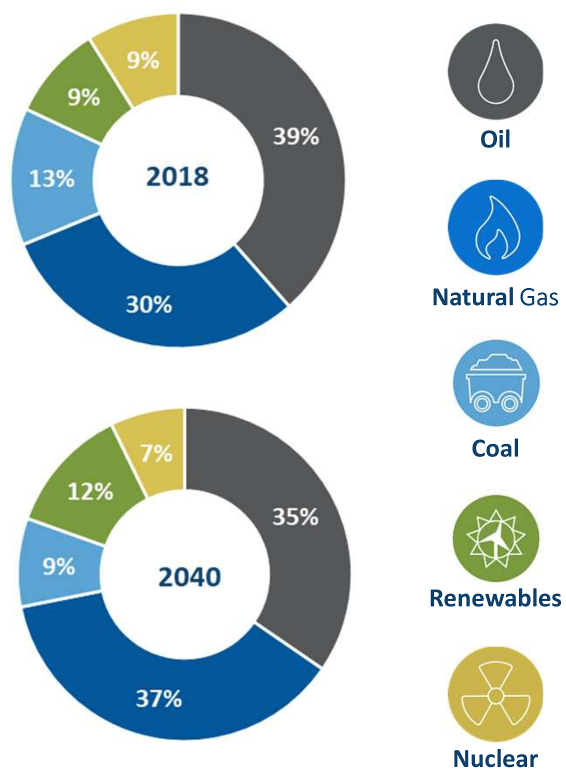


~4,800 Tcf of technically recoverable and proved reserves supports production growth

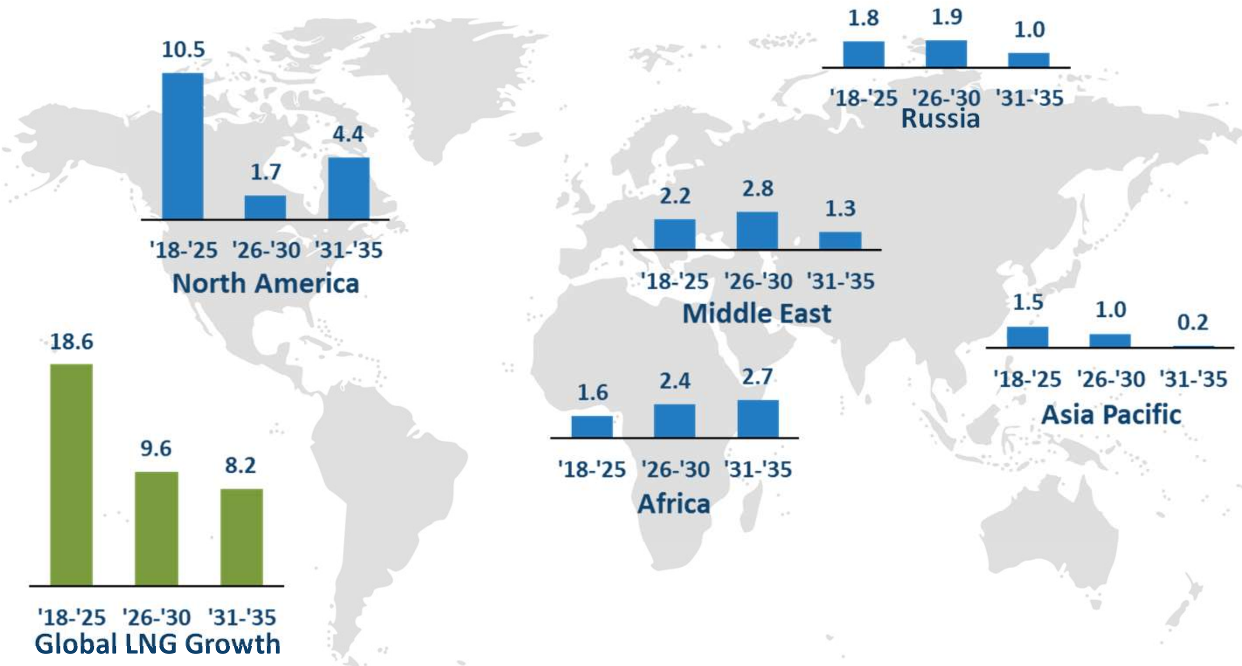
Source: TC Energy, U.S. Energy Information Agency, U.S. Potential Gas Committee

Natural gas consumption continues to grow

Total U.S. Energy Consumption



Global LNG Supply Growth (Bcf/d)



North America will provide over 45% of the world's incremental LNG supply growth through 2035

Source: TC Energy, U.S. Energy Information Agency

2019 – Continued to build on success through diversified portfolio

Placed US$4.5 billion of growth projects in-service in 2019

- Completed US$7.9 billion growth program generating EBITDA in excess of US$1 billion

Modernization II Program

- Completed Year 2 of US$1.1 billion Modernization II program on-time and on-budget
- Implementing Modernization programs on other assets

Environmental responsibility

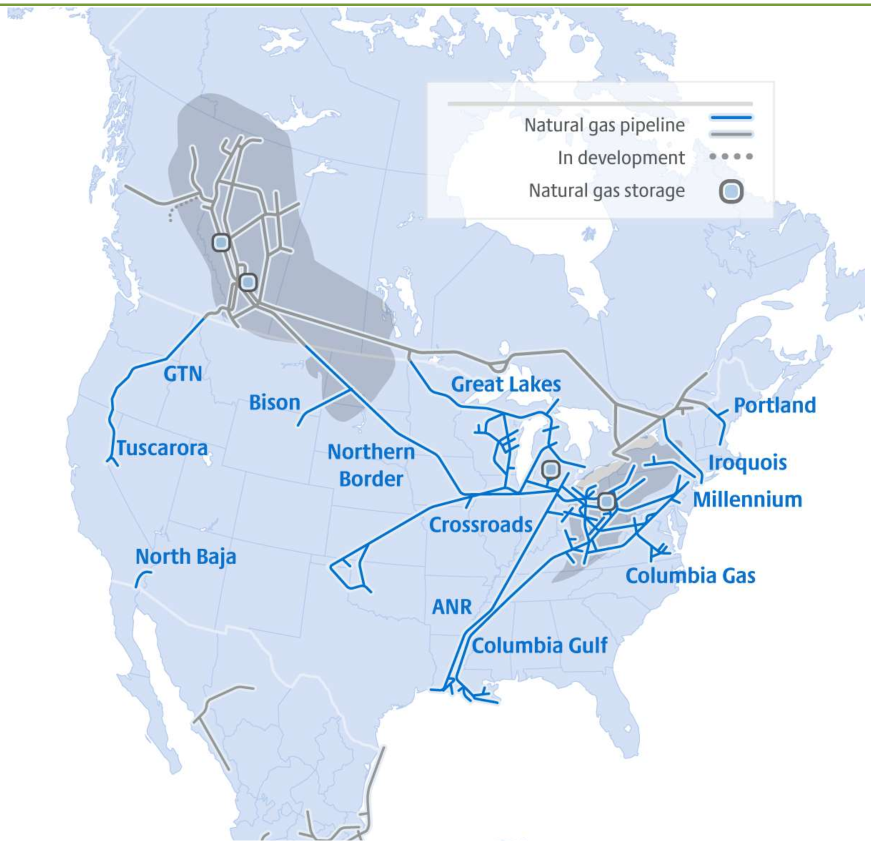
- Removed the equivalent of ~7% of CO_2 on TCO annually
- Since 2016, emissions intensity across the total system has declined by 20%

Strong results despite increased headwinds

- Zero lost time incidents in over 1.6 million hours worked
- Successfully settled three rate cases
- Third straight year of record EBITDA with record demand for our assets
- Securing strong next wave of growth projects across diversified asset base
- Originated over US$1.3 billion of new growth projects

Advantaged portfolio of growth and sustainability projects driving shareholder value

Pipelines experiencing record demand



Pipeline*	Contracted Capacity
GTN	100%
Northern Border	100%
Millennium	100%
Columbia Gulf	100%
Portland	100%
North Baja	100%
ANR	100%
Tuscarora	100%
Columbia Gas	93%
Iroquois	83%
Great Lakes	52%
Bison	37%
Crossroads	26%

93% of revenues from long-term, take-or-pay contracts with high utilization

**GTN, Tuscarora, North Baja, Bison, Northern Border and Portland interests, together with 46% of Great Lakes and 49% of Iroquois, are held within TC PipeLines, LP of which TC Energy's ownership is approximately 25%*

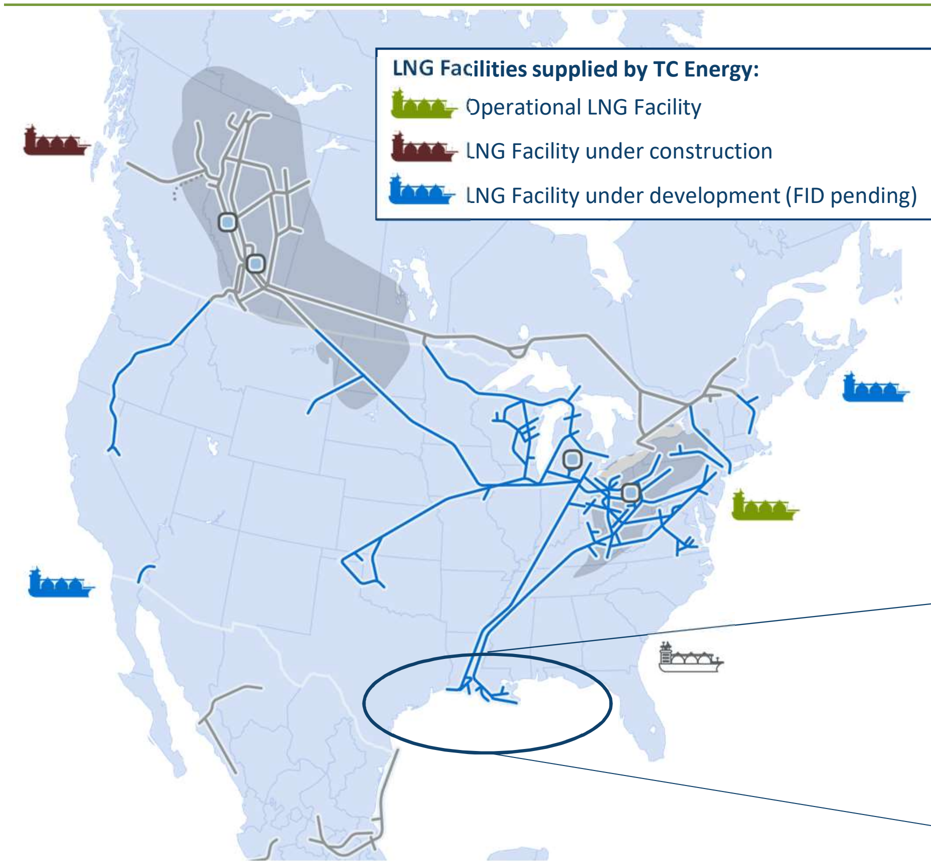
Sustainable value driven by new growth projects

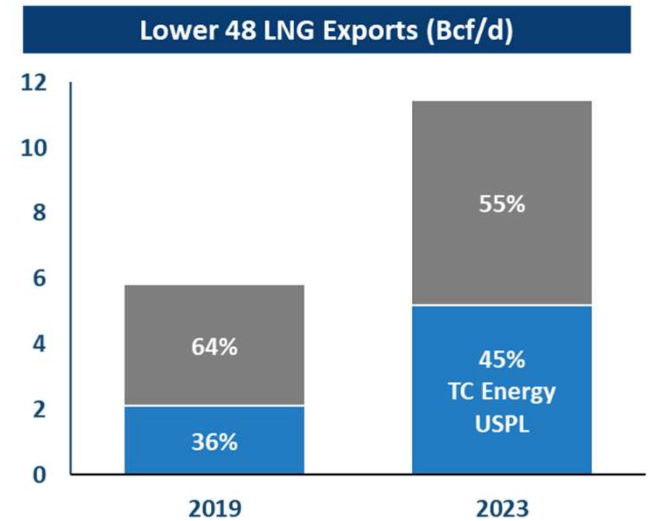
Projects	Supply / Demand	Capacity (Bcf/d)	Capital Cost (US$Millions)
Projects in-service since 2016		**7.7**	**7,860**
Buckeye XPress	Supply	0.3	195
Westbrook XPress[(1)]	Demand	0.1	125
Grand Chenier XPress	Demand	1.1	225
Louisiana XPress	Demand	0.8	385
East Lateral XPress[(2)]	Demand	0.7	290
GTN XPress[(1)]	Mixed	0.3	335
Other[(3)]	Mixed	1.2	460
Growth Projects in-execution		**4.5**	**2,015**
Total in-service and in-execution		**12.2**	**9,875**
Modernization II			1,100
Recoverable Maintenance Capital[(4)]			2,100
Grand Total			**13,075**

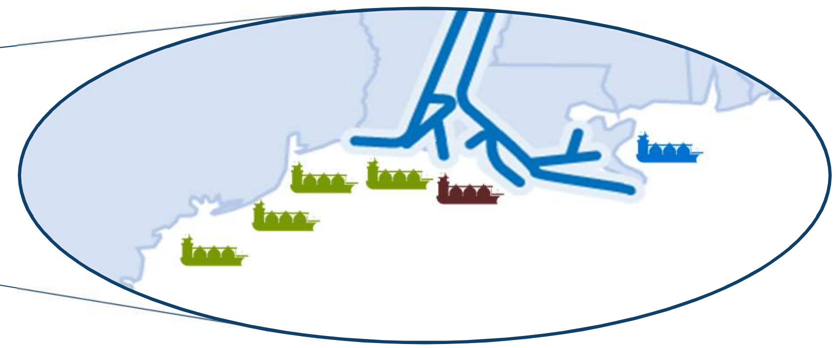
Over US$1.4 billion of EBITDA from in-corridor growth projects

[(1)] Westbrook XPress and GTN XPress are projects on pipelines held within TC PipeLines, LP; [(2)] East Lateral XPress and certain projects in Other subject to positive customer FID;
[(3)] Includes projects under development; [(4)] Maintenance capital for 2020-2022

Accessing global demand via LNG exports



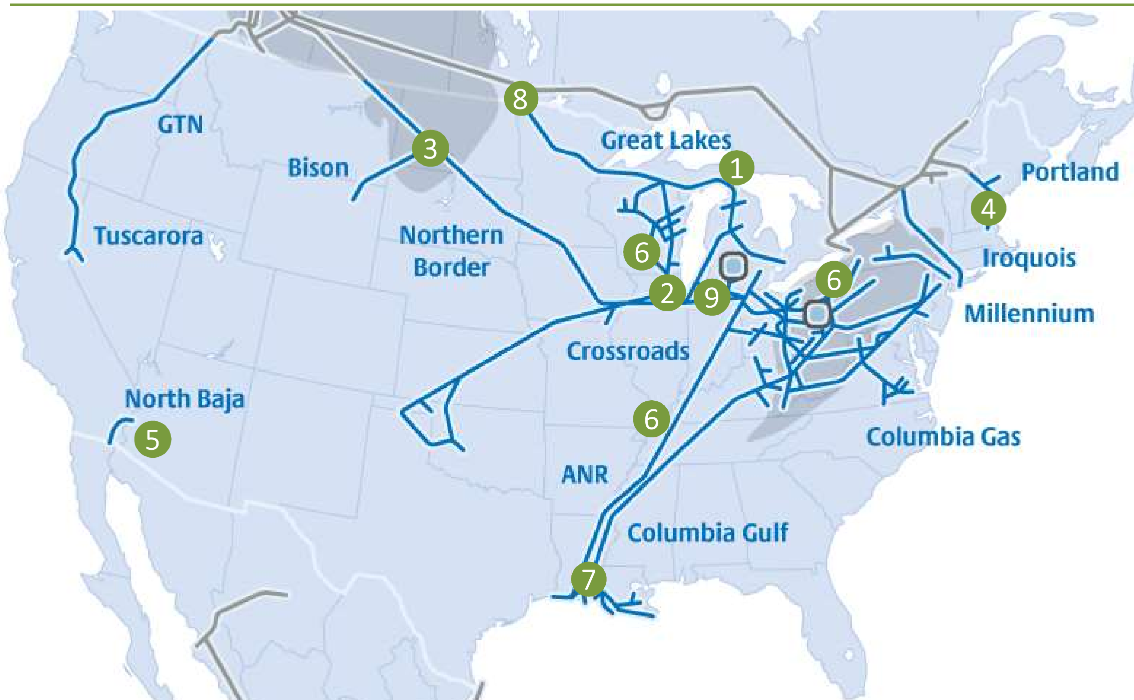




Our U.S. pipelines provide supply to five existing and three planned LNG export facilities

Source: TC Energy

Key focus areas and opportunities in 2020 and beyond



Projects In Origination

1 Alberta XPress	4 PNGTS Expansion	7 LNG Connections
2 Joliet XPress	5 LNG / Mexico	8 WCSB Optimization
3 Bakken Supply Push	6 Power Generation	9 Crossroads Repurposing

Ensuring safe and reliable operations

- Implement PHMSA's Gas Transmission Rules
- Provide direction on Pipeline Safety Reauthorization Act

Optimizing our base business

- Exercise cost and capital discipline
- Increase capacity via small scale debottlenecking and interconnects

Navigating the regulatory process

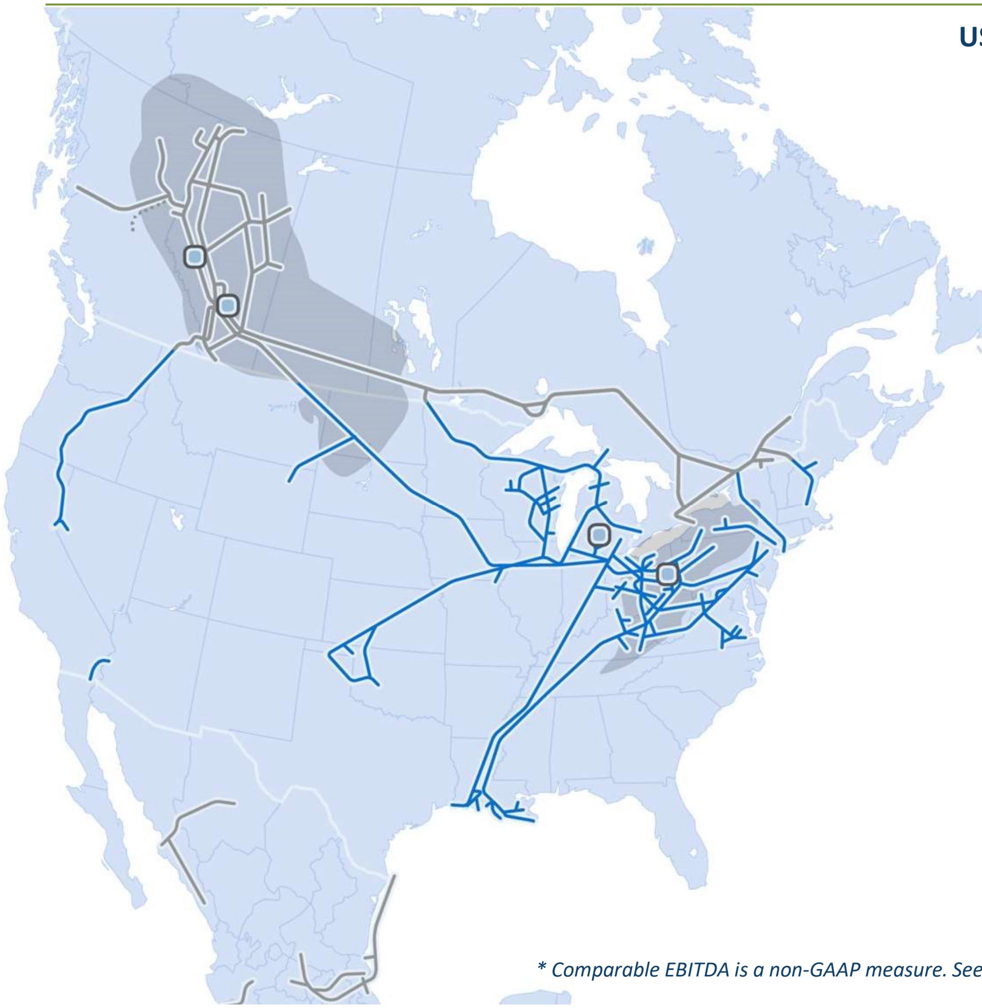
- Optimize future rate case filings
- Implement Modernization programs on other pipes

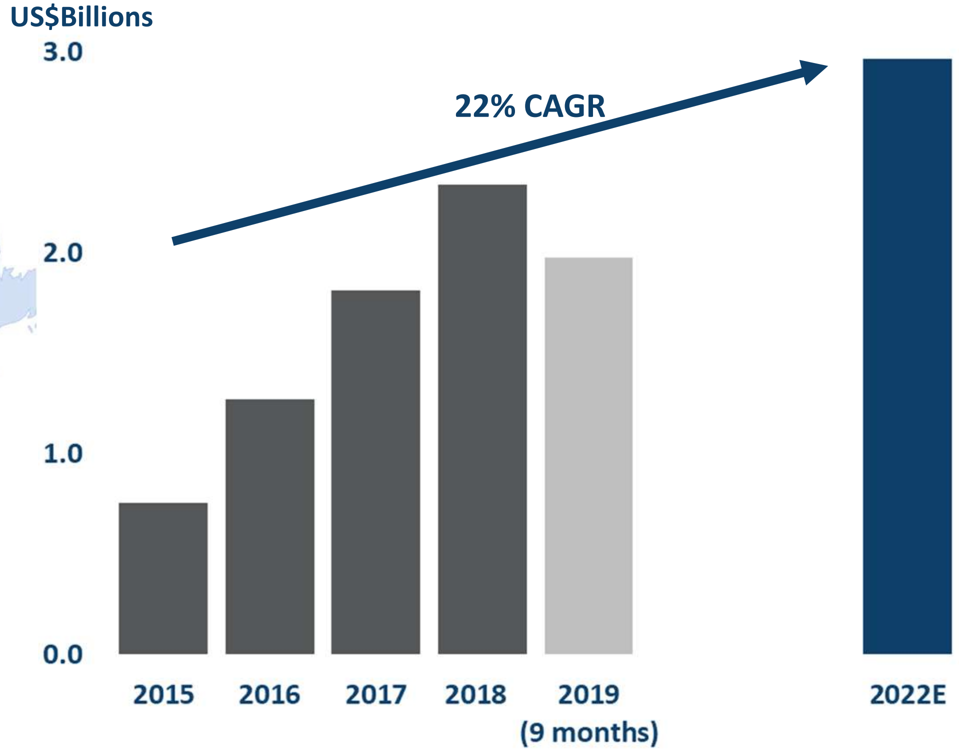
Continuing to capture synergies with Canada and Mexico

Securing the next wave of growth projects

Positioned to deliver continued value creation through diversified footprint

Comparable EBITDA* outlook





Transformative growth – positioned for continued success

** Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Looking ahead

Execute

Operate safely and reliably

Continue executing near-term growth program

Implement further Modernization programs

Maximize

Exercise cost and capital discipline

Small-scale debottlenecks and interconnects

Optimize future rate case filings

Cultivate

Secure next wave of growth opportunities

Continue to capture synergies with Canada and Mexico

Access international demand

Deliver superior long-term shareholder returns

U.S. Natural Gas Pipelines

Stan Chapman
Executive Vice-President and President, U.S. Natural Gas Pipelines

TC Energy

Mexico Natural Gas Pipelines

Francois Poirier
Executive Vice-President, Corporate Development and Strategy,
and President, Power & Storage and Mexico

TC Energy

Mexico – solid position and growing

- Five revenue-generating pipelines
  - Tamazunchale
  - Guadalajara
  - Mazatlán
  - Topolobampo
  - Sur de Texas
- Villa de Reyes expected to enter service in 2020
- Tula expected to enter service two years after successful Indigenous consultations
- Portfolio value increasing to ~US$5.5 billion
- All pipelines underpinned by long-term US$ denominated contracts with CFE
- Well-positioned to connect U.S. natural gas to growing power generation and industrial markets in northwest and central Mexico

Developing an integrated natural gas delivery system

2019 Accomplishments

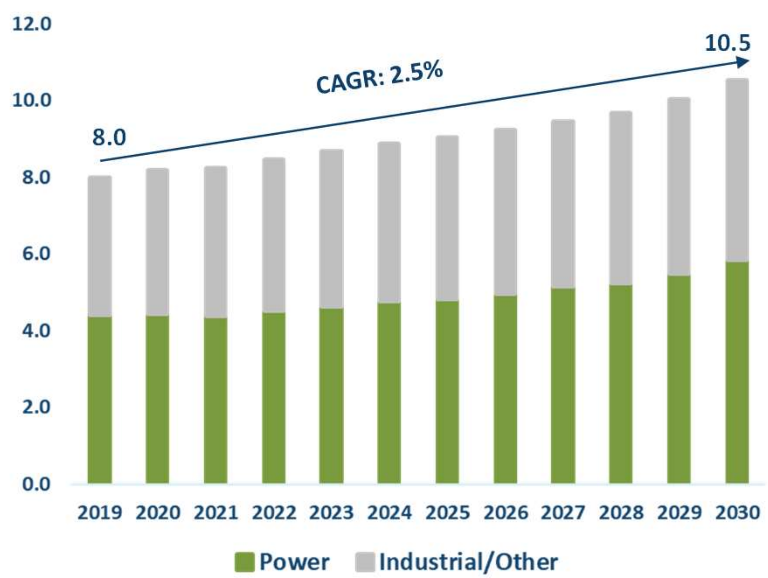
- Mexico's gas supply grew by 40% when Sur de Texas began commercial operations in September
- Positive settlement on Sur de Texas includes 10-year contract extension
- US$900 million capital program for Villa de Reyes pipeline 90% complete
- Negotiations with CFE and Mexican Government progressing on Villa de Reyes and Tula pipelines
- 100% delivery reliability on operating assets
- State-of-the-art construction techniques to protect the environment

Continuing to lead Mexico's energy transition while improving economic, social and environmental outcomes

Mexico supply and demand forecast

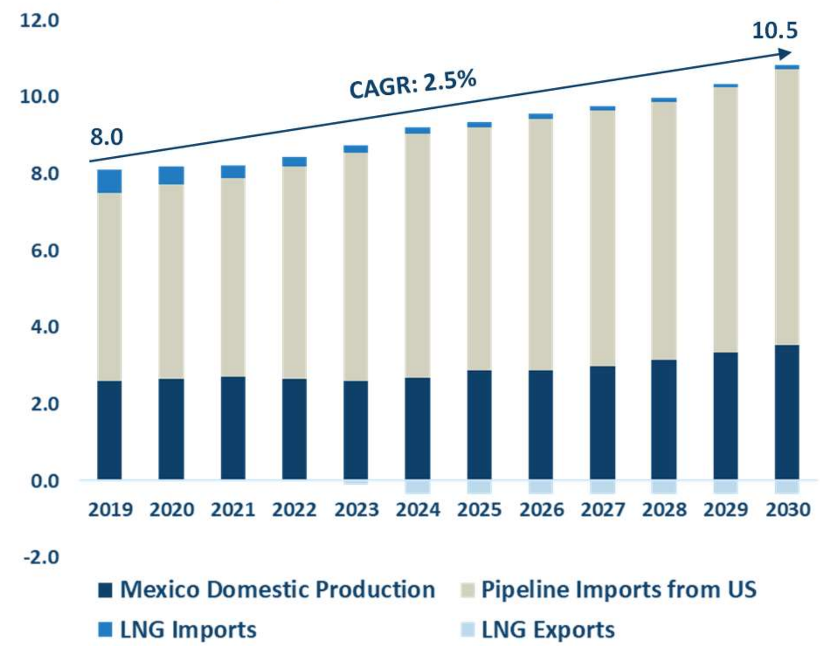
Natural Gas Demand through 2030E (Bcf/d)

Gas-fired power generation increases from 4.4 to 5.8
Industrial/other power generation increases from 3.6 to 4.7



Natural Gas Supply through 2030E (Bcf/d)

Domestic production increases from 2.6 to 3.6
Pipeline imports from U.S. increase from 4.9 to 7.2
LNG imports decrease from 0.6 to 0.1



Pipelines critical to meeting natural gas demand

Source: TC Energy

Growth potential

Short-term growth

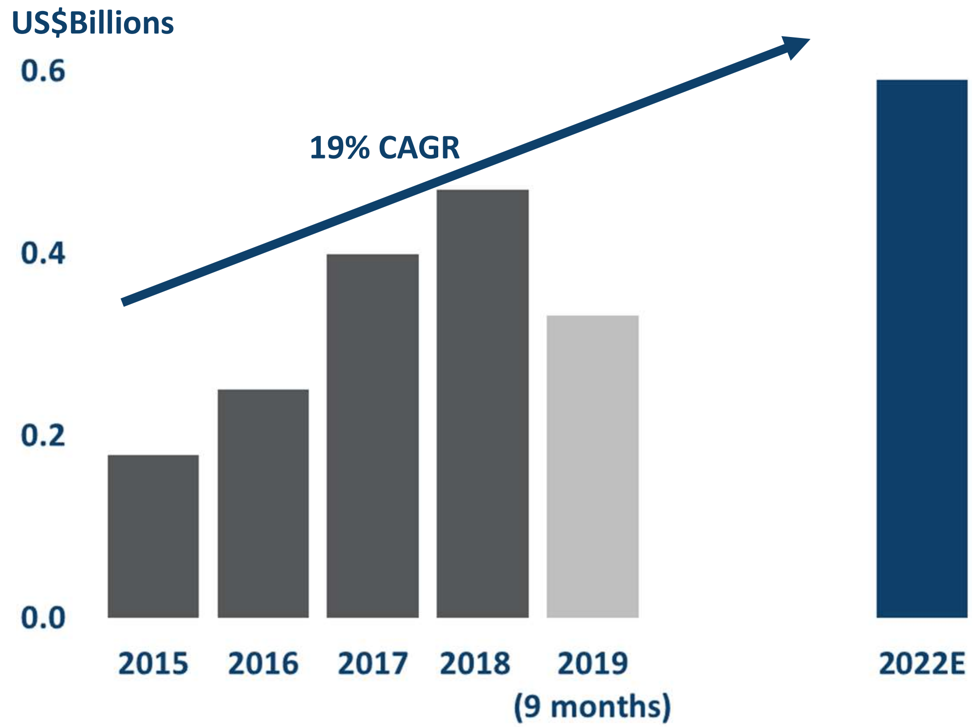
- Increasing capacity through efficient expansions
- Connecting new demand centres through extensions
- **Central:** Abundant U.S. gas enabling industrial and power generation fuel switching
- **Northwest:** Only pipeline system in the region
- Ancillary services including parking
- Gas marketing will optimize utilization and drive expansion

Longer-term opportunities

- LNG export opportunities off west coast, with shortest distance to connect abundant U.S. gas

Broad suite of opportunities across natural gas value chain

Comparable EBITDA* outlook



Positioned for future growth

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Looking ahead

Deliver

Operate safely and reliably

Maximize

Advance and finalize commercial negotiations with CFE on Tula and Villa de Reyes

Execute

Complete construction of Villa de Reyes project with a three-phased 2020 in-service program

Cultivate

Pursue organic growth opportunities

Assess value chain extensions such as gas marketing and LNG export

Deliver superior long-term shareholder returns

Mexico Natural Gas Pipelines

Francois Poirier
Executive Vice-President, Corporate Development and Strategy,
and President, Power & Storage and Mexico

TC Energy

Liquids Pipelines

Paul Miller
Executive Vice-President, Technical Centre and President, Liquids Pipelines

TC Energy

Asset overview – connecting North American liquids supply to markets

Keystone Pipeline System
- Transports ~20% of Western Canadian crude oil exports
- Delivers U.S. production to market
- Market access to ~6 million Bbl/d of refining capacity

Intra-Alberta pipelines
- Crude oil pipeline gathering and diluent delivery systems
- Market access for Alberta production

Sustainable performance
- Largely underpinned by long-term, take-or-pay contracts
- High demand for uncommitted capacity
- Strong counterparty credit quality
- Opportunities for optimization
- Safe, reliable operations
- Supporting local communities

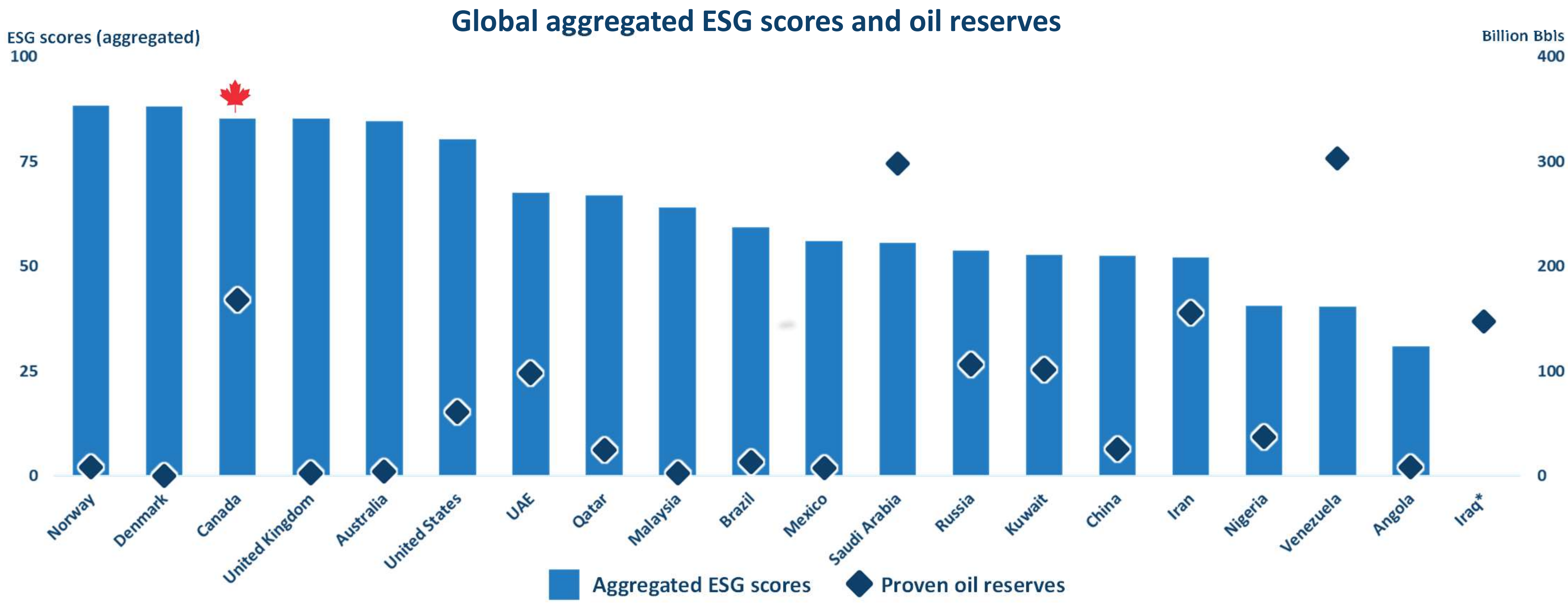
Infrastructure footprint uniquely positions our sustainable business

Assets deliver high-quality EBITDA

- **Keystone:** >90% contracted
- **Marketlink:** ~80% contracted
- **Grand Rapids:** recovery through base contracts
- **Northern Courier:** 100% contracted
- **White Spruce:** 100% contracted
- Future growth opportunities to leverage base systems

Long-term contract base with future growth opportunities

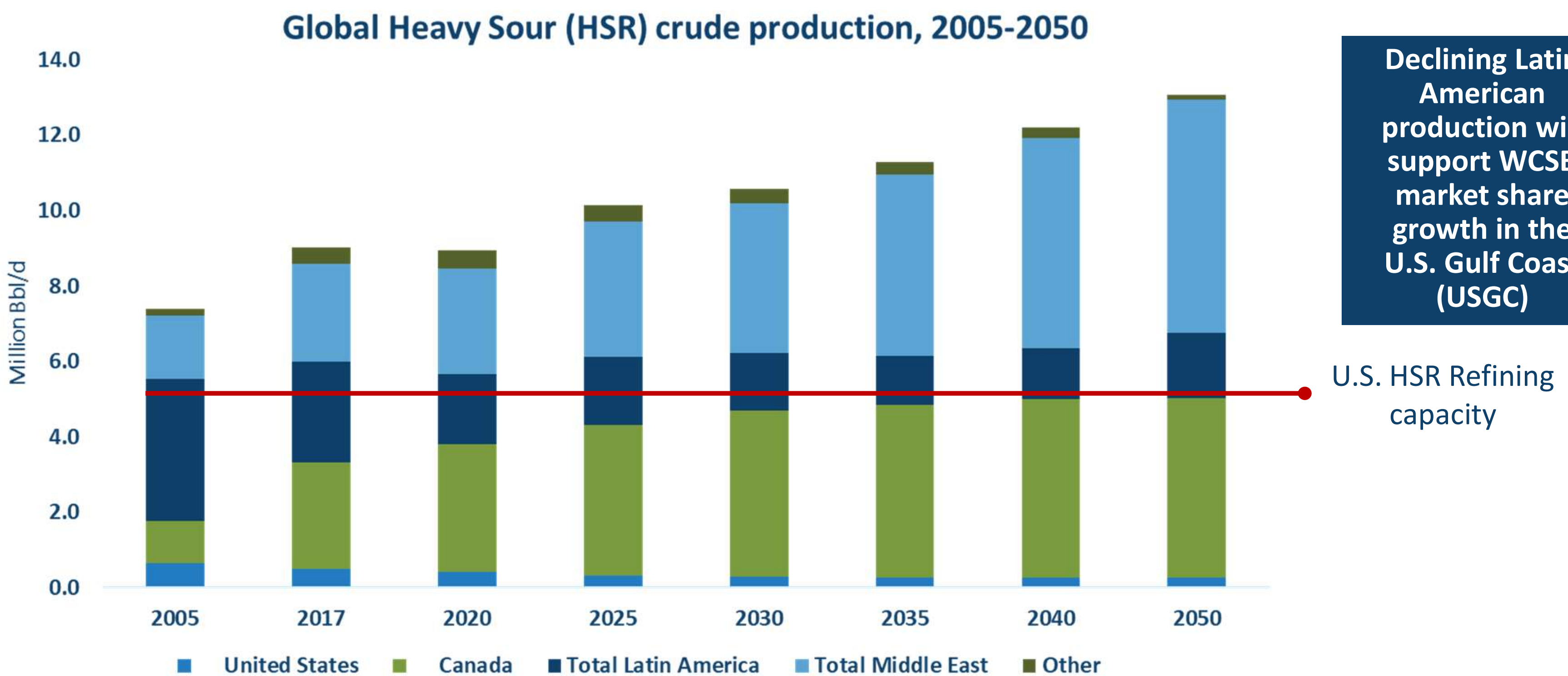
Canadian oil is in the world's best interest



Canadian-produced oil, from world's third-largest reserves, is ESG positive and has competitive breakeven supply costs

Source: ESG scores: Aggregated using equal weighting 1/3 for each of Yale Environmental Performance Index, Social Progress Index. World Bank Governance index.
*Reserves: BP Statistical Review of World Energy 2019 based on government and published data *Complete aggregated ESG data for Iraq unavailable.*

North American crude oil displacing Latin American production



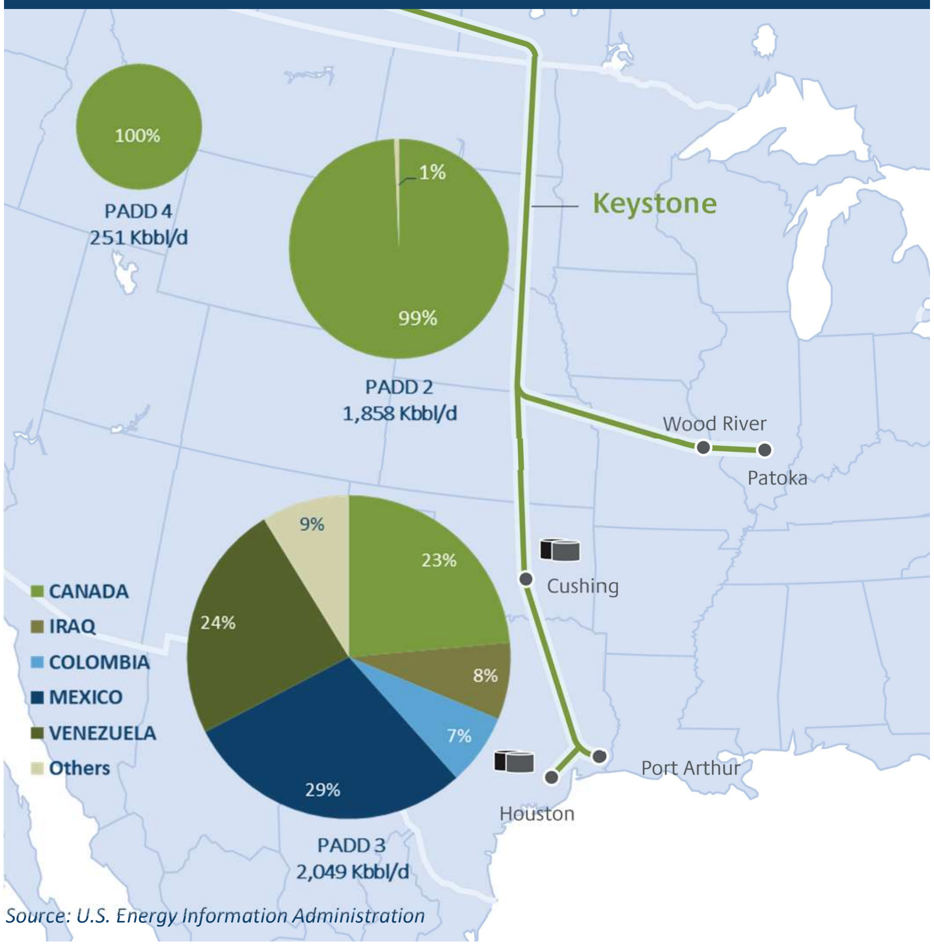
Declining Latin American production will support WCSB market share growth in the U.S. Gulf Coast (USGC)

North American crude oil production growth expected to displace ~2 million Bbl/d of imports by 2050

Source: IHS Markit, Global Crude Oil Markets Fundamentals, 2018

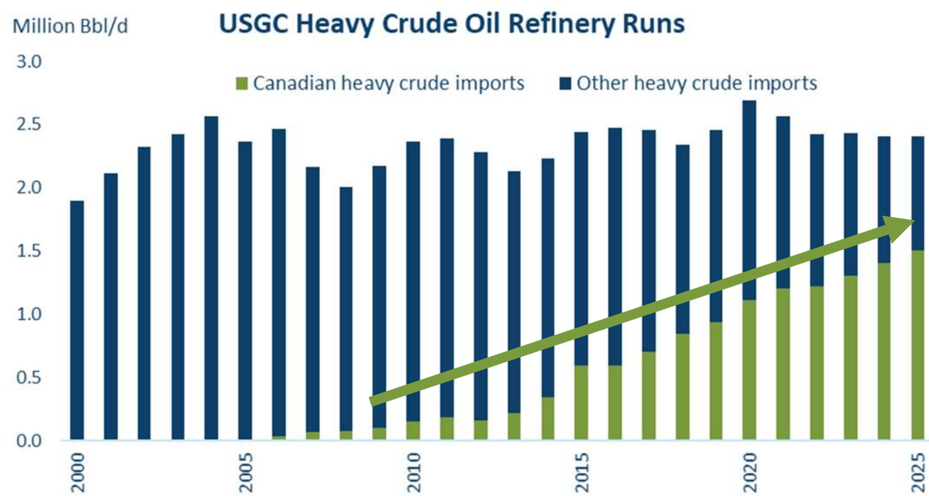
Strong demand for Canadian crude oil in key refining markets

U.S. Heavy Crude Oil Imports in Key Markets



Source: U.S. Energy Information Administration

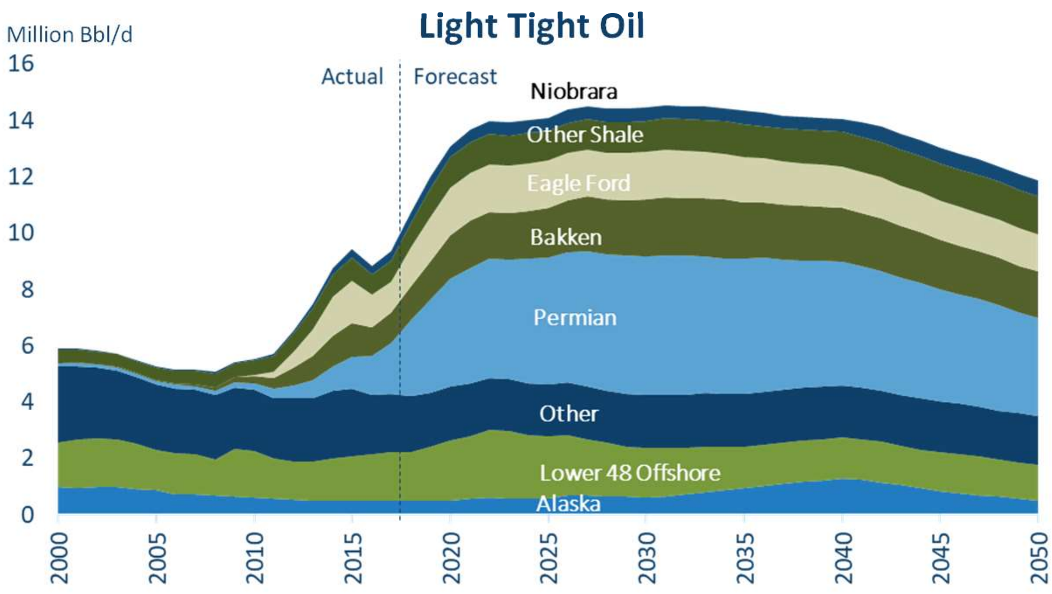
- Significant opportunity for Canadian heavy crude in USGC and other markets
- Declining Latin American production
- Oil sands responsible, sustainable and globally cost competitive
- Value of TC Energy Liquids infrastructure enhanced with WCSB egress constraints



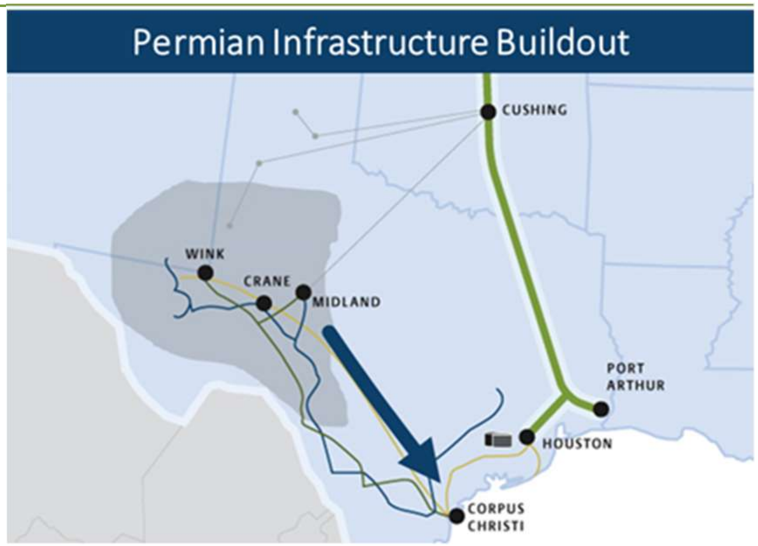
Source: IHS Markit, 2018

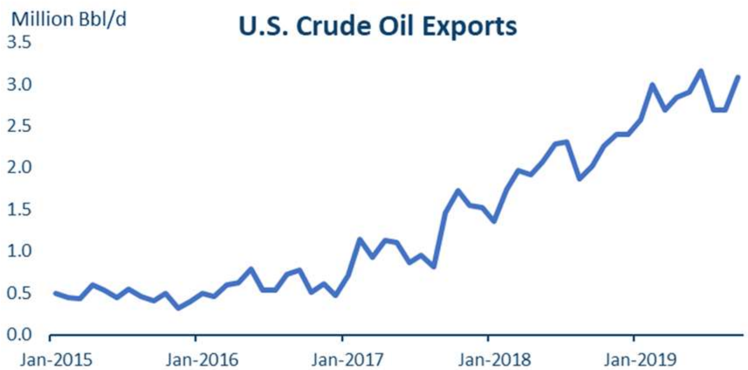
Light Tight Oil (LTO) production growth

- Permian and Bakken LTO lead U.S. production growth
- LTO destined for export markets
- ~2 million Bbl/d of new Permian pipeline infrastructure impacting market fundamentals



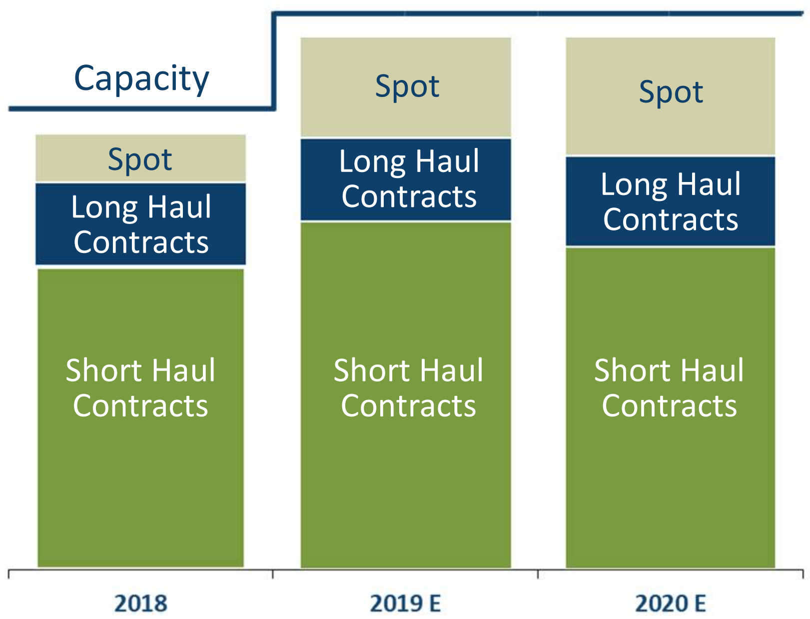
Source: EIA Annual Energy Outlook 2019





Source: U.S. Energy Information Administration

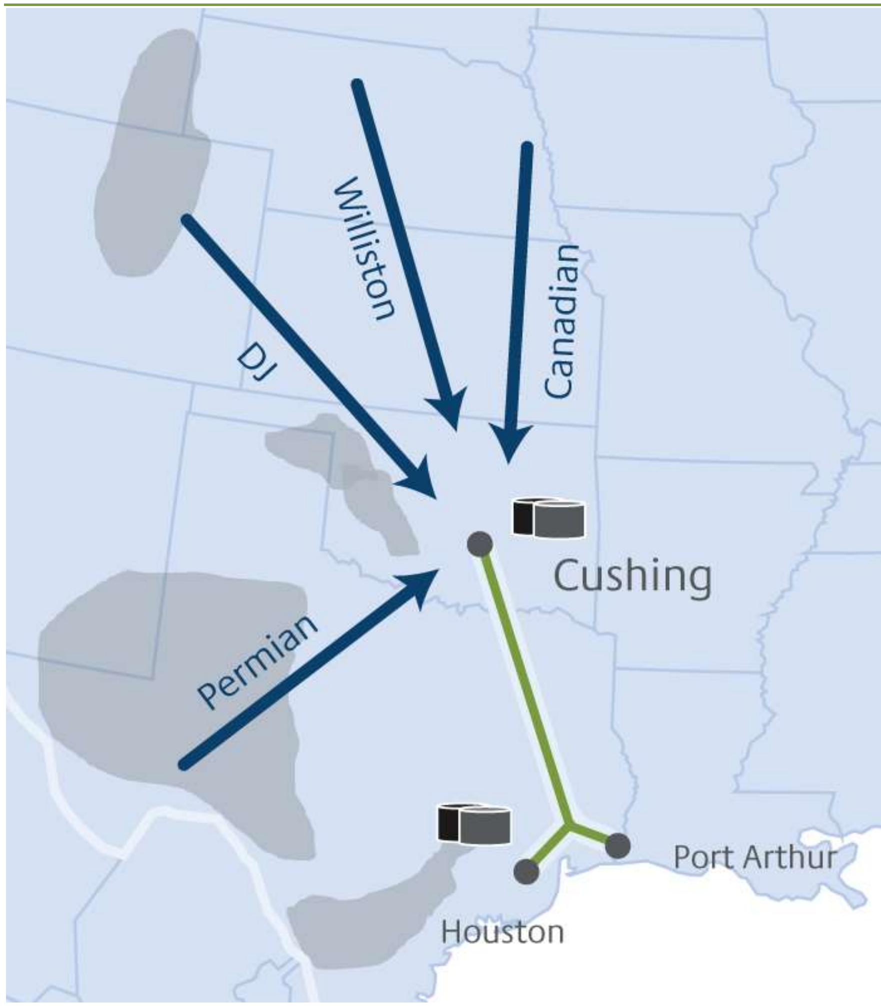
Maximizing Marketlink system capabilities



- Optimized throughput and captured market opportunity in 2018 and 2019
- 2020 fundamentals will result in lower contracted volumes
- System positioned to respond to changing demand
- Continued focus on margin enhancement

Responding to changing market dynamics

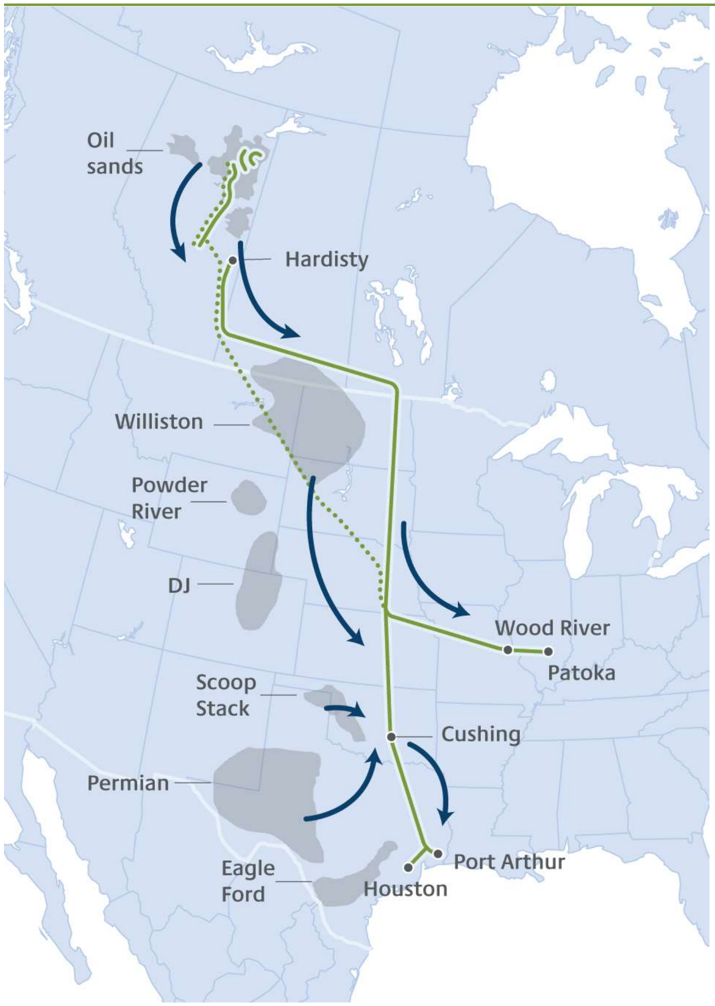
Marketlink well positioned for shifting USGC fundamentals

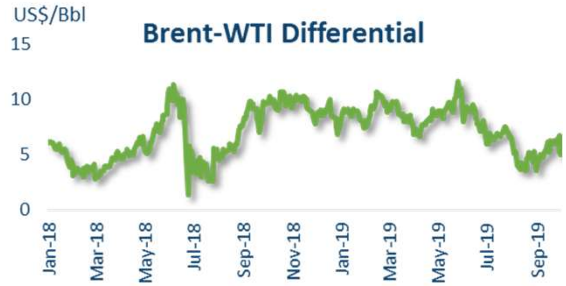


- Resilient U.S. Gulf Coast heavy crude oil demand
- New Permian supply directed to U.S. Gulf Coast
- Incremental supply into Cushing

Connecting multiple supply sources to USGC

Well positioned for strong market fundamentals





Maximize value of existing assets

Strategic corridor

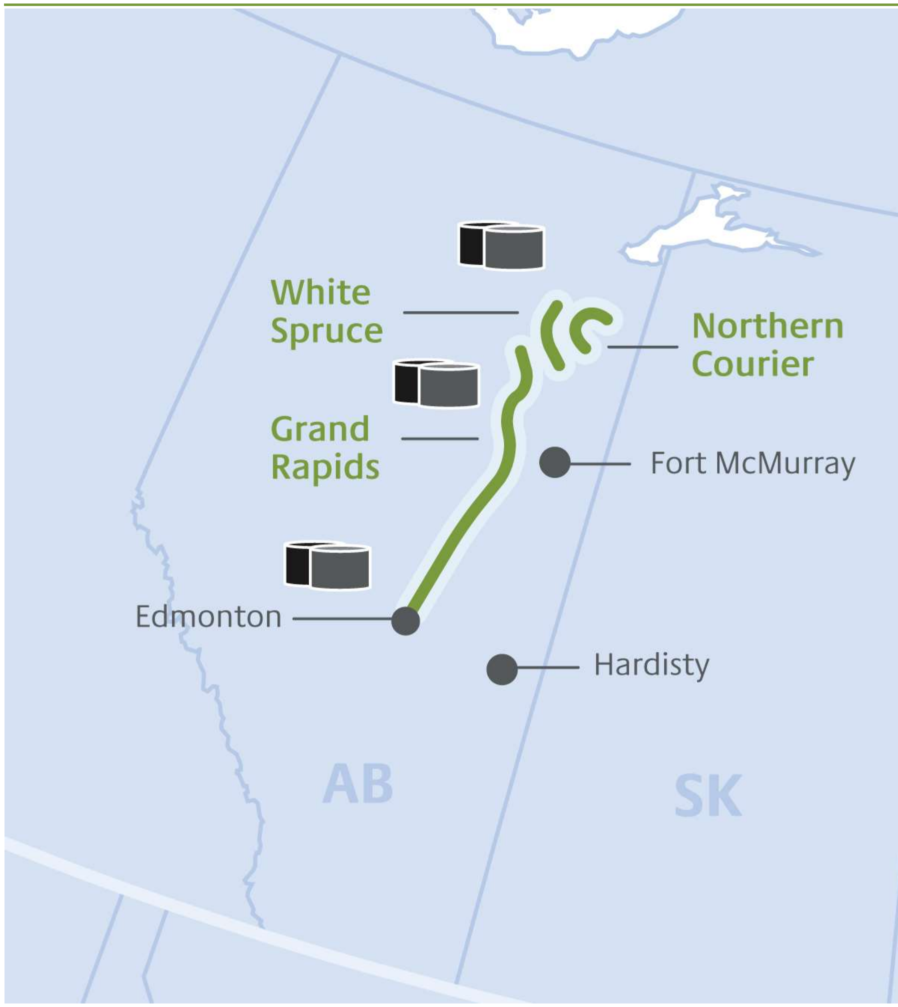
- Proximate to growing supply basins
- Connected to key U.S. markets

Leverage footprint

- Enhance connectivity to expand supply and market access
- Re-purpose existing infrastructure

Significant growth opportunities

Alberta regional growth



White Spruce Pipeline

- 72-km pipeline to connect CNQ Horizon crude oil production
- $200 million investment
- Completed on time and on budget

Northern Courier

- Successfully monetized portion of asset for $1.15 billion of proceeds
- Retained operatorship

Market access for Alberta production

Advancing deep portfolio of growth opportunities

Fully approved by regulator

- Grand Rapids Phase II
- Heartland Pipeline
- Keystone Hardisty Terminal

Awaiting final permits

- Keystone XL

Contiguous differentiated path from supply to market

Progressing Keystone XL

Canadian NEB approved

U.S. federal permit status

- New Presidential Permit issued
- Updated SEIS issued
- Other federal permits expected in early 2020

State-level permit status

- Nebraska Public Service Commission decision upheld by Nebraska Supreme Court
- All state-level permits in place

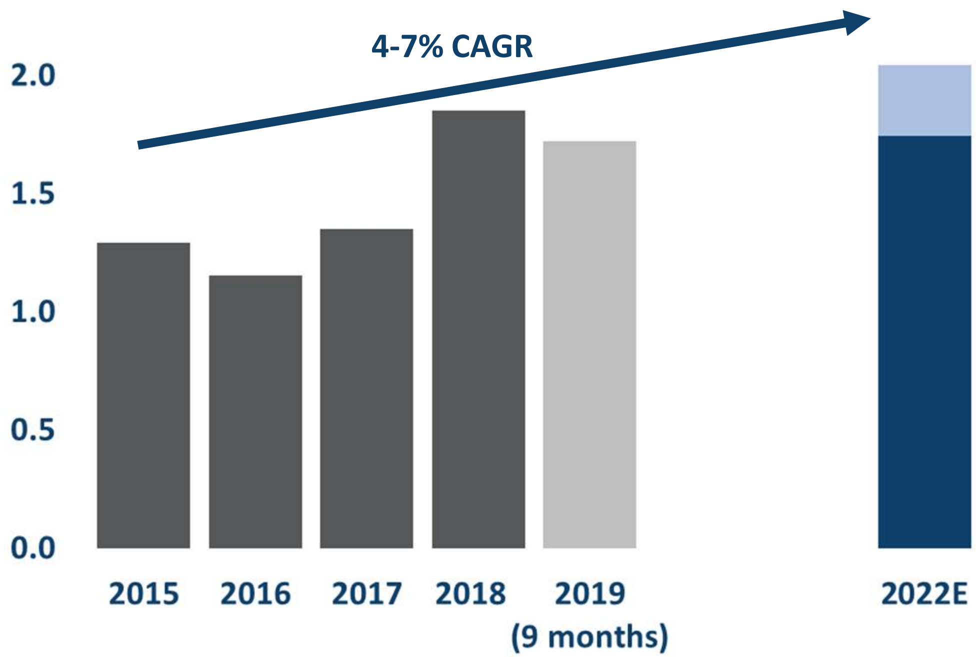
Final investment decision status

- Pending full permitting and regulatory approvals

Critical North American infrastructure benefitting refiners and producers

Comparable EBITDA* outlook

$Billions



- ~80% of EBITDA contracted
- Permian infrastructure buildout narrowing differentials
- 2020-2022 demand impact from market dynamics

** Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Looking ahead

Deliver

Provide safest, most reliable and lowest-emission liquids transportation

Maximize

Continue enhancement of base business

Increase connectivity

Advance

Keystone XL under development

Cultivate

Grow sustainable and contracted EBITDA

Deliver superior long-term shareholder returns

Liquids Pipelines

Paul Miller
Executive Vice-President, Technical Centre and President, Liquids Pipelines

TC Energy

Power and Storage

Francois Poirier
Executive Vice-President, Corporate Development and Strategy,
and President, Power & Storage and Mexico

TC Energy

Power and Storage asset overview

Power

- 10 power plants*
  - Approximately 6,000 MW*
  - Portfolio of low-cost, low-emission, baseload generation
  - Underpinned by long-term contracts

Storage

- Alberta non-regulated natural gas storage facilities
  - 118 Bcf of capacity
  - Approximately one-third of the provincial storage total

Diversified and stable energy infrastructure

**Share of nominal plant capacity and includes assets held for sale*

Assets deliver high-quality EBITDA

Plant	Long-term contracted capacity (MW)*	Counterparty	Contract expiry
Bruce Power Units 1-8	3,109	IESO	Up to 2064
Bécancour	550	Hydro-Québec	2026
Alberta plants	127	various	2022-2027
Grandview	90	Irving Oil	2024
Plant held for sale**			
Napanee***	900	IESO	20 Years from In-Service
Halton Hills	683	IESO	2030
Portlands	275	IESO	2029

~95% of generating capacity underpinned by long-term contracts with high quality counterparties

**Our proportionate share of power generation capacity*
*** Assets subject to sale agreement*
**** Under construction*

2019 Accomplishments

- Solid financial results
- Advanced Bruce Power life extension program
- Napanee construction 99% complete
  - Expected in-service in the first quarter of 2020
- Reached agreement to sell Halton Hills, Napanee and the 50% interest in Portlands Energy Centre for proceeds of ~$2.9 billion
- Closed sale of Coolidge for ~US$448 million
- Closed sale of the remaining U.S. Northeast power marketing contracts
- MacKay River outage completed safely, ahead of schedule

Proceeds from asset sales used to fund secured capital program

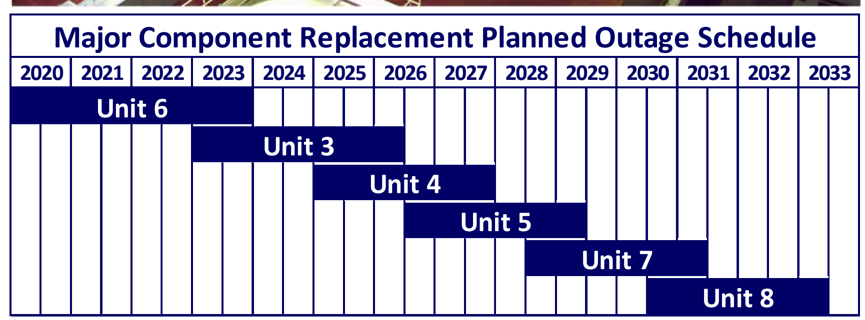
Bruce Power overview

Bruce Power provides 30% of Ontario's electricity at 30% less than the average cost to produce residential power

- 6,400 MW or ~30% of Ontario’s needs
- 48.4% ownership interest
- Power sales contracted with Ontario IESO through 2064
- Ontario Power Generation responsible for spent fuel and decommissioning liabilities
- Successfully completed collective bargaining negotiation with Society of United Professionals
- Unit 1 achieved one year of continuous generation, eclipsing previous record of 361 days set in mid-1980’s
- 2017 to 2019 is the highest power production output period in facility history
- Began producing medical-grade Cobalt-60 isotopes used worldwide for cancer and complex brain condition treatment

Bruce Power Life Extension Program

- Major Component Replacement (MCR) and Asset Management (AM) on schedule and on budget
  - Unit 6 MCR to begin in January 2020
- MCR and AM capital reflected in power price
  - Price increased from ~$68/MWh to ~$78/MWh in April 2019
  - Future MCR-related price adjustments to occur from 2022 to 2030
- Expected investment
  - $2.2 billion* for the Life Extension Program through 2023
  - $6.0 billion** for the remaining Life Extension Program through to 2055



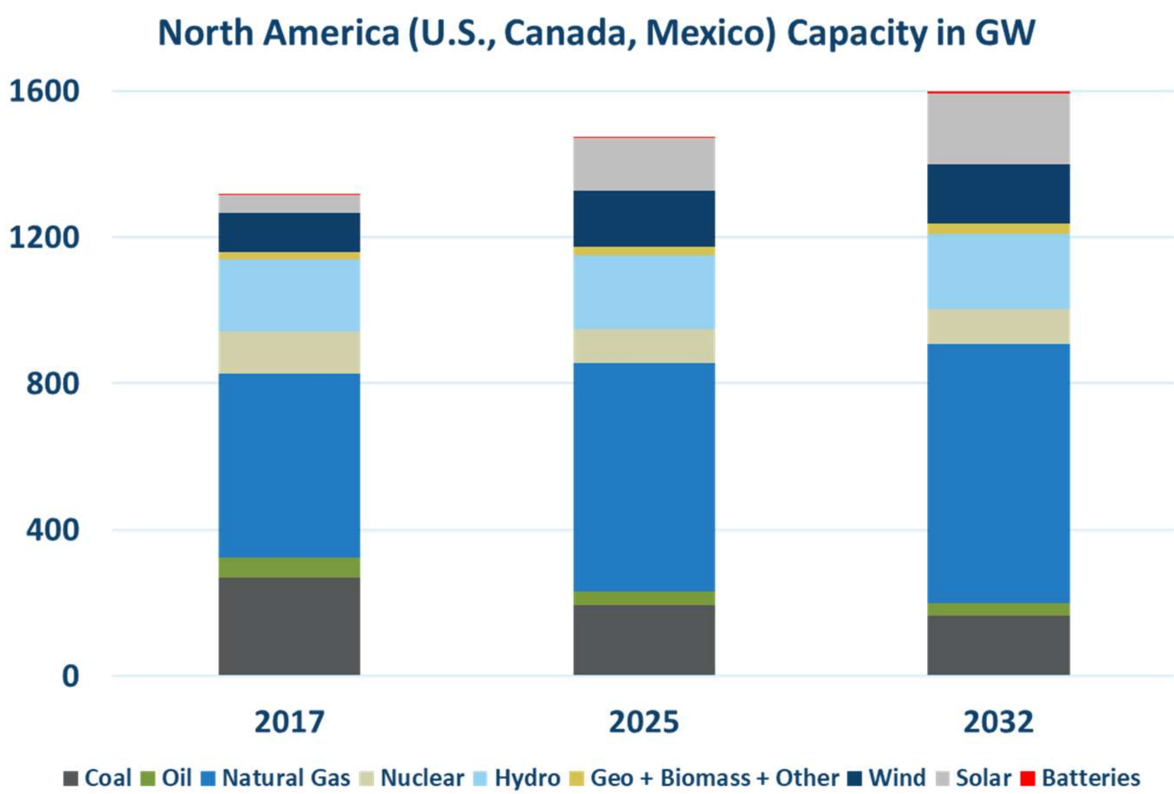
*TC Energy's share in nominal dollars
**TC Energy's share in 2018 dollars

Bruce Power financial contribution

- Robust risk-adjusted returns on $8 billion life extension program
- Steady equity income through the first four MCRs as price increases offset lower production
- Significant increase in equity income and cash flow as generation increases beyond the fourth MCR due to enhanced reliability and fewer outage days
- Potential to increase overall site capacity

Delivering emissions free, reliable, low-cost nuclear power for Ontario consumers at attractive risk-adjusted rates of return to TC Energy

Power market fundamentals – capacity mix for North America



- Natural gas, solar, wind and batteries increase
- Coal and oil diminish
- Demand growth forecast based on economic growth, demographics, electrification, energy efficiency and distributed energy resources

Electricity grid shifting to lower carbon-emission intensity

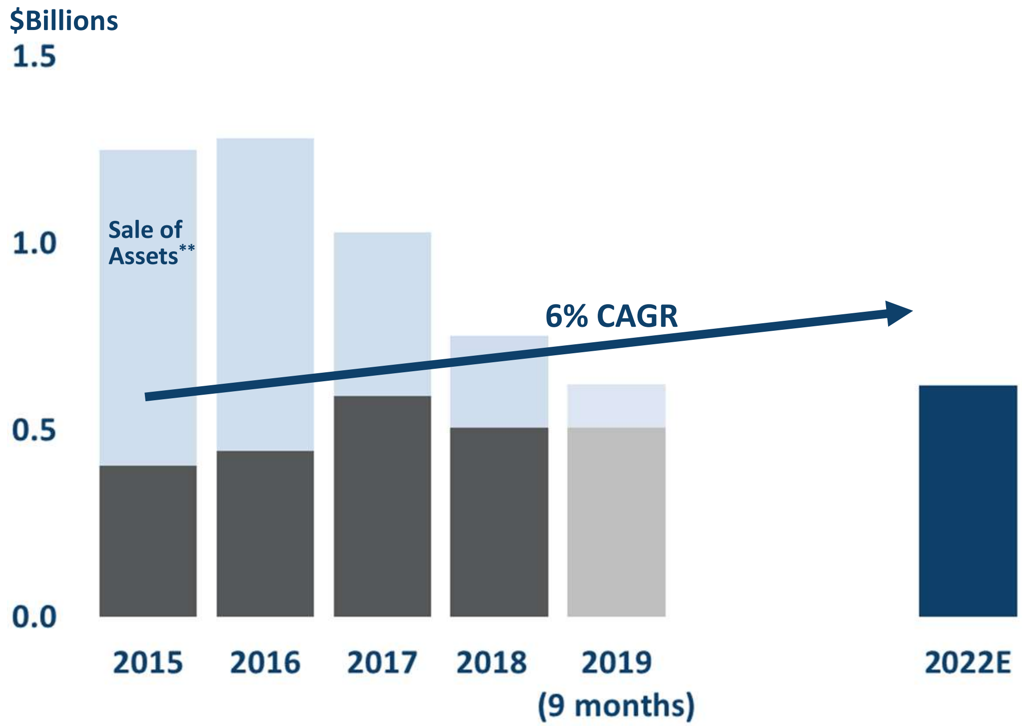
Sources: EIA, NEB, Prodesen

Power and Storage growth opportunities

- Continue to be significant private sector power generator in Canada
- Exploring new low-risk investment opportunities within core North American electricity markets
- Increasing fuel and technology diversity
  - Underwriting renewable PPAs
  - Waste heat on the existing pipeline footprint
  - Oilsands conventional steam conversion to gas cogeneration
  - Mexico's commercial and industrial power demand increasing; potential for contracted gas-fired generation
- Pursuing opportunities to meet demand for firming resources
  - Batteries and/or batteries with solar
  - Pumped hydro storage at scale

A solid base for growth

Comparable EBITDA* outlook



Solid base with long-term future growth in earnings

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

***U.S. NE Power generation assets sold in Q2, 2017; Ontario solar portfolio sold in Q4, 2017; Cartier Wind sold in Q4, 2018; Coolidge sold in Q2, 2019; Ontario natural gas-fired power plants held for sale*

Looking ahead

Execute

Operate safely and reliably

Optimize operations

Bring Napanee to commercial operation

Complete sale of Ontario natural gas-fired power plants

Complete Bruce Unit 6 MCR

Advance

Five additional Bruce MCRs under development

Cultivate

Explore low-risk North American investment opportunities

Increase fuel and technology diversity

Pursue development of firming resources

Deliver superior long-term shareholder returns

Power and Storage

Francois Poirier
Executive Vice-President, Corporate Development and Strategy,
and President, Power & Storage and Mexico

TC Energy

Finance

Don Marchand
Executive Vice-President and Chief Financial Officer

TC Energy

Core principles

Long-term view grounded in fundamentals Footprint is irreplaceable	**Adherence to established, conservative risk preferences** Assets are resilient and earn appropriate returns	**Simple model and corporate structure** Business is understandable
Capital allocation balances sustainable dividend growth and reinvestment Focus on per share metrics	**Financial strength and flexibility at all points of the economic cycle** Top credit in our sector	**Candid, useful disclosure meets needs of stakeholders** Financial and ESG

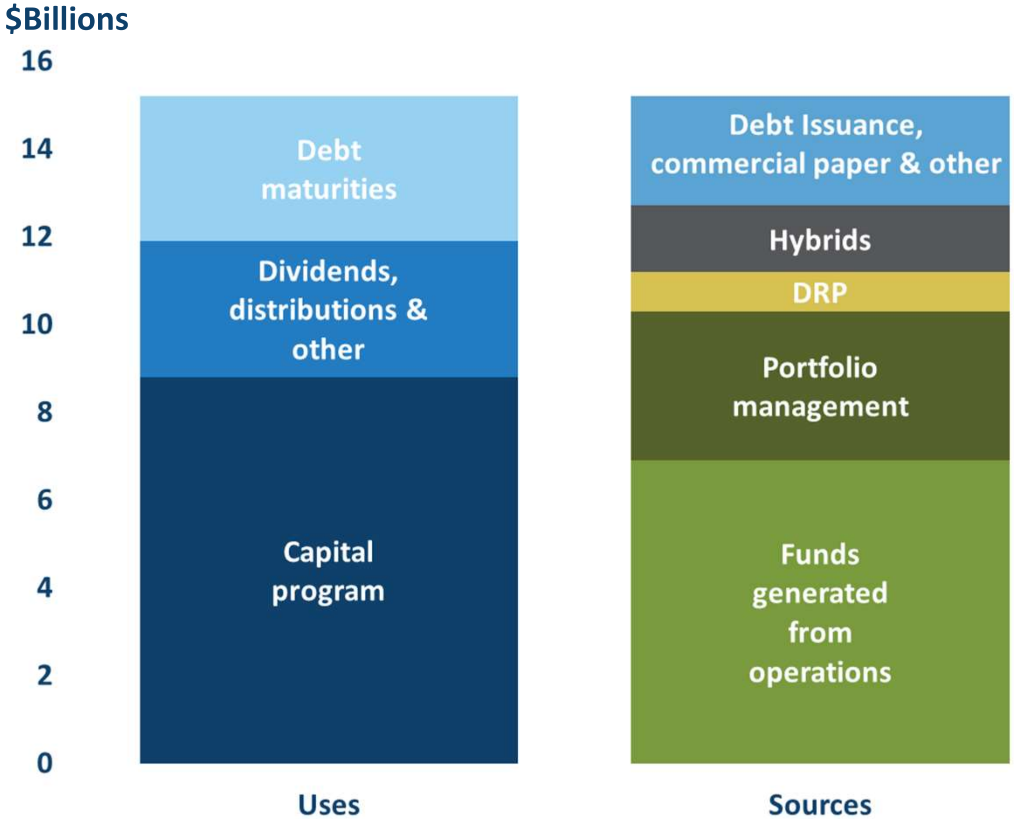
Proven and enduring tenets
Company positioned for another decade of disciplined growth

2019 Scorecard

- Robust operating and financial performance
- ~$10 billion of assets placed into service
- Monetized $6.3 billion of mature assets
- Debt to EBITDA run-rate in the “high fours”
- Coastal GasLink funding on track
- Dividend Reinvestment Program (DRP) turned off
- ESG reporting reinforced with strong story to tell

Exiting 2019 in customary solid financial position

2019 Funding complete

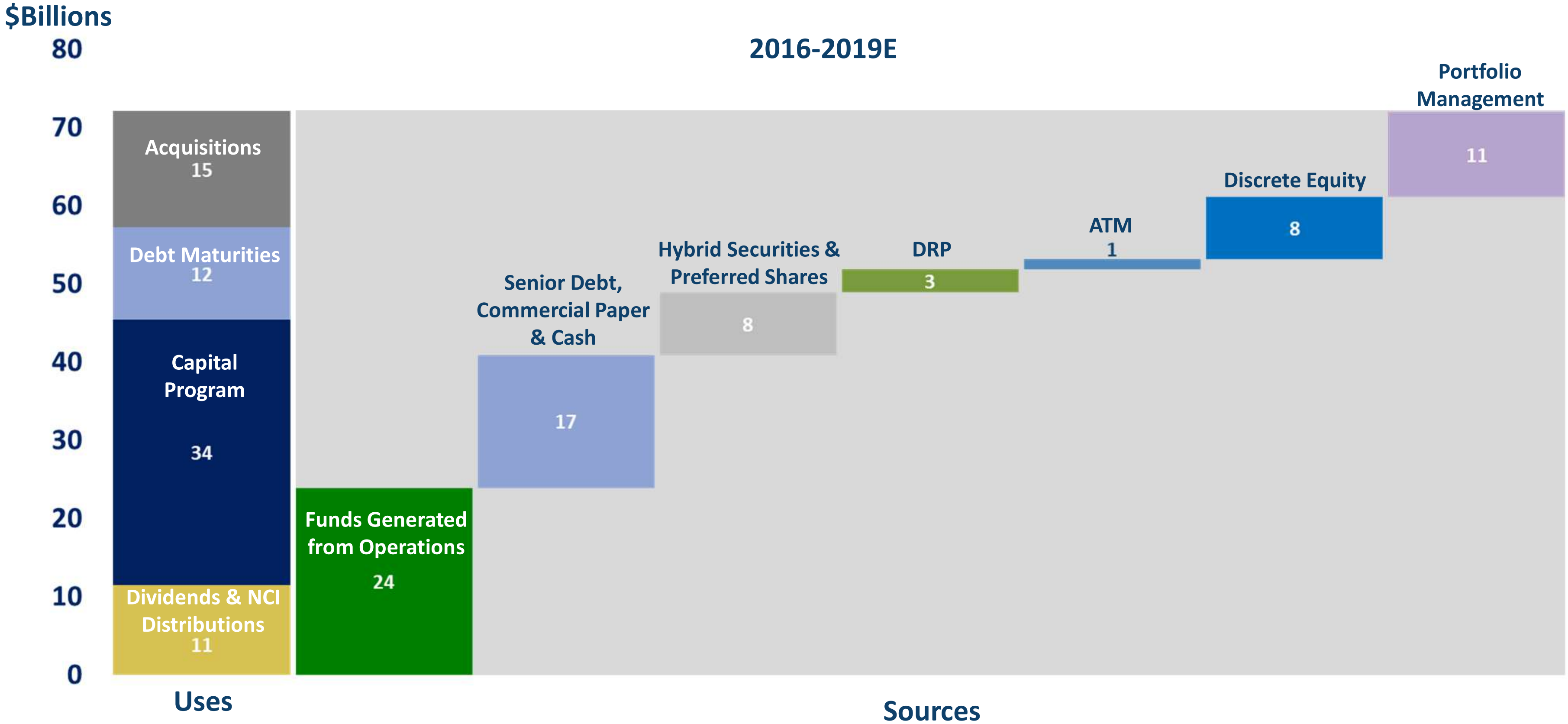


$7.8 billion raised in 2019 through an array of attractive funding options

- $3.4 billion from monetization of Coolidge, Northern Courier and certain Columbia Midstream assets
  - Additional $2.9 billion to be realized on sale of Ontario gas-fired power plants in first quarter 2020
- $3.5 billion of senior debt and hybrid capital raised in Canadian and U.S. markets
- $0.9 billion of DRP proceeds
  - Issuance from treasury ceased with fourth quarter 2019 dividend declaration

Program highlights diversity and depth of funding levers delivering concurrent and sustainable improvement in balance sheet and earnings

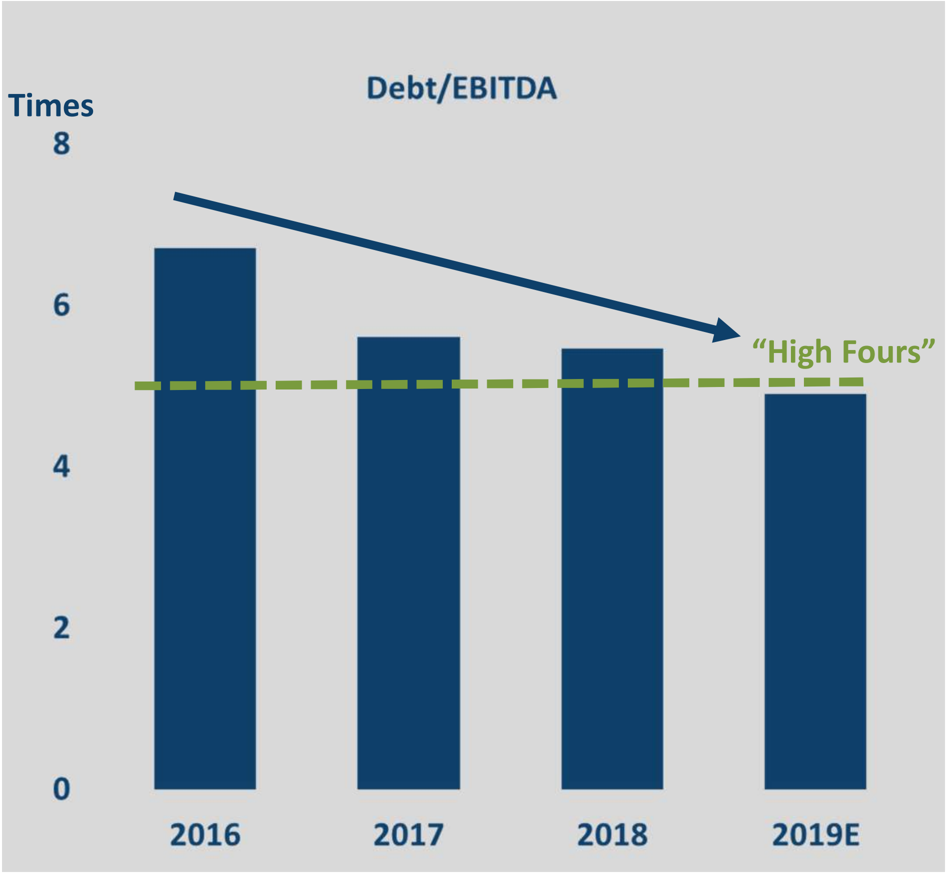
Balanced program has funded $72 billion of capital needs



Business position fortified, growth potential enhanced and financial strength preserved

Excludes Columbia acquisition bridge facilities which were repaid with proceeds from the November 2016 equity issuance and sales of the U.S. Northeast Power assets; acquisitions shown net of debt assumed

Deleveraging while growing per share earnings

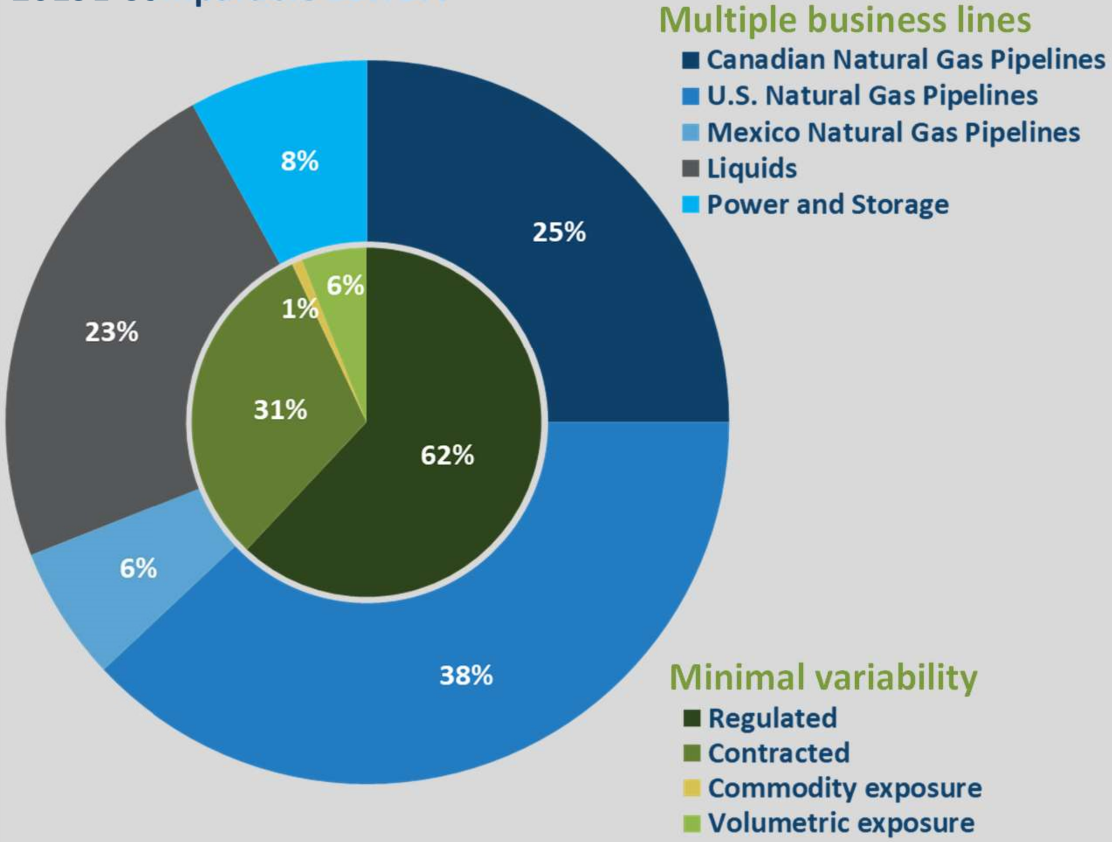


Target credit metrics achieved with simultaneous improvement in quantum and quality of EPS

**Comparable EPS is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Diversified portfolio of critical energy infrastructure

2019E Comparable EBITDA*



- **Foreign Exchange**
  - EBITDA ~60% USD and ~40% CAD
  - Significant U.S. dollar debt and associated interest serve as natural hedge
  - Residual exposure actively managed one-year forward
- **Interest Rates**
  - Debt portfolio >90% fixed rate
  - Average debt term of 22 years
  - Regulatory and commercial arrangements mitigate impact of rate movements
- **Counterparty**
  - Portfolio diverse and heavily investment grade
  - Strong market positions and fundamentals further supported by collateral/financial assurances
  - Financial strains facing certain WCSB and Appalachian producer shippers not expected to have any material effect

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Advancing $30 billion secured capital program through 2023

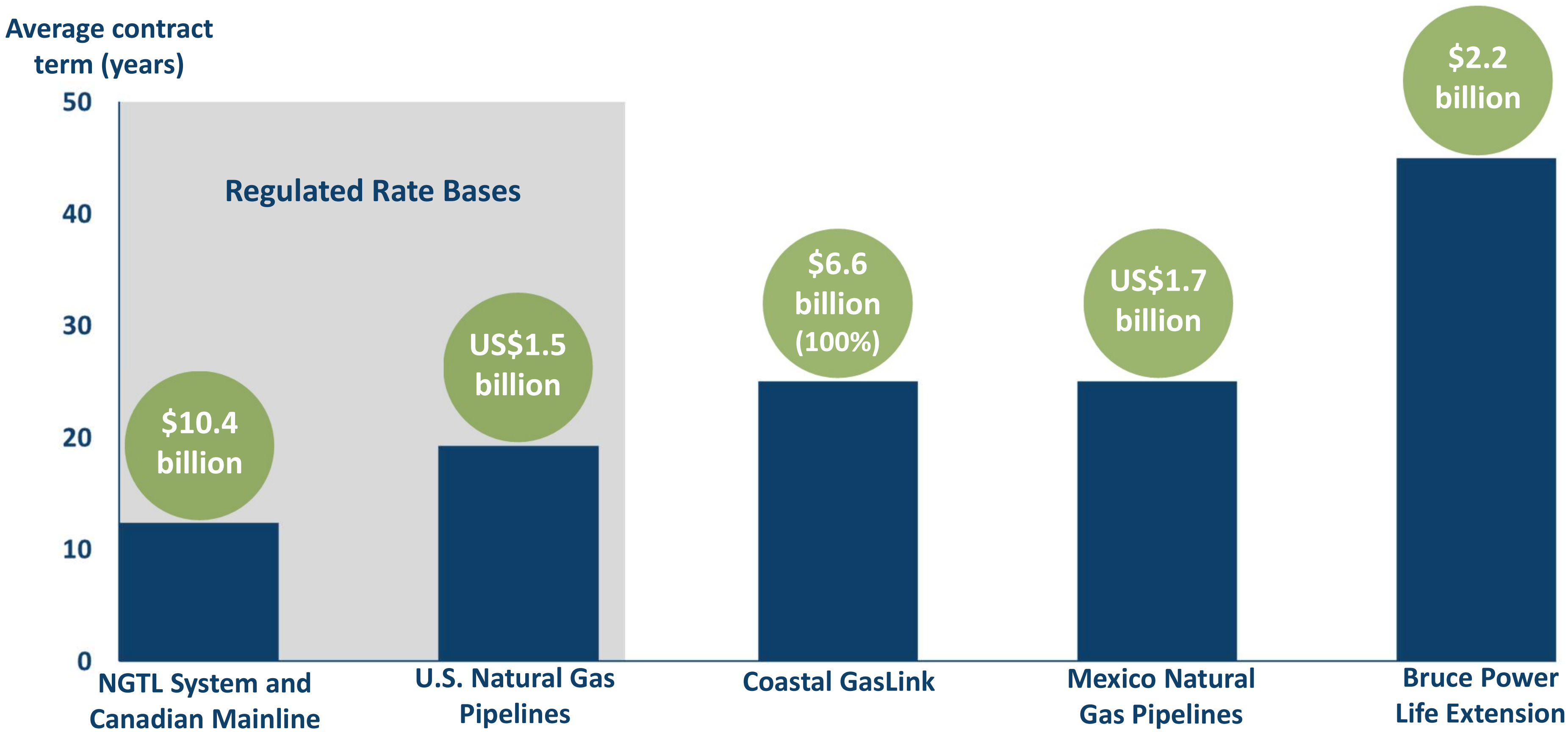
Project	Estimated Capital Cost*	Invested to Date*	Expected In-Service Date*
NGTL System	2.5	2.4	2019
Modernization II	US 1.1	US 0.7	2019-2020
Villa de Reyes	US 0.9	US 0.7	2020
NGTL System	2.1	0.8	2020
Other Liquids Pipelines	0.1	-	2020
Canadian Natural Gas Pipelines Regulated Maintenance	1.8	0.4	2019-2021
U.S. Natural Gas Pipelines Regulated Maintenance	US 2.1	US 0.4	2019-2021
Liquids Pipelines Recoverable Maintenance	0.1	-	2019-2021
Non-recoverable Maintenance	0.7	0.2	2019-2021
NGTL System	2.6	0.1	2021
Other U.S. Natural Gas Pipelines	US 1.5	US 0.1	2019-2022
Canadian Mainline	0.4	0.1	2019-2022
Bruce Power Life Extension**	2.2	0.9	2019-2023
NGTL System	2.8	-	2022+
Coastal GasLink (100%)	6.6	0.8	2023
Tula [1]	US 0.8	US 0.6	-
Foreign Exchange Impact (1.32 exchange rate)	2.0	0.8	-
Total Canadian Equivalent	**30.3**	**9.0**	

Attractive suite of projects backed by strong commercial underpinning

[1] Construction of the central segment for the Tula project has been delayed due to lack of progress to successfully complete Indigenous consultation by the Secretary of Energy. The east and west segments of Tula are being considered as part of the current renegotiation with CFE.

** Billions of dollars. Certain projects are subject to various conditions including corporate and regulatory approvals. ** Our proportionate share.*

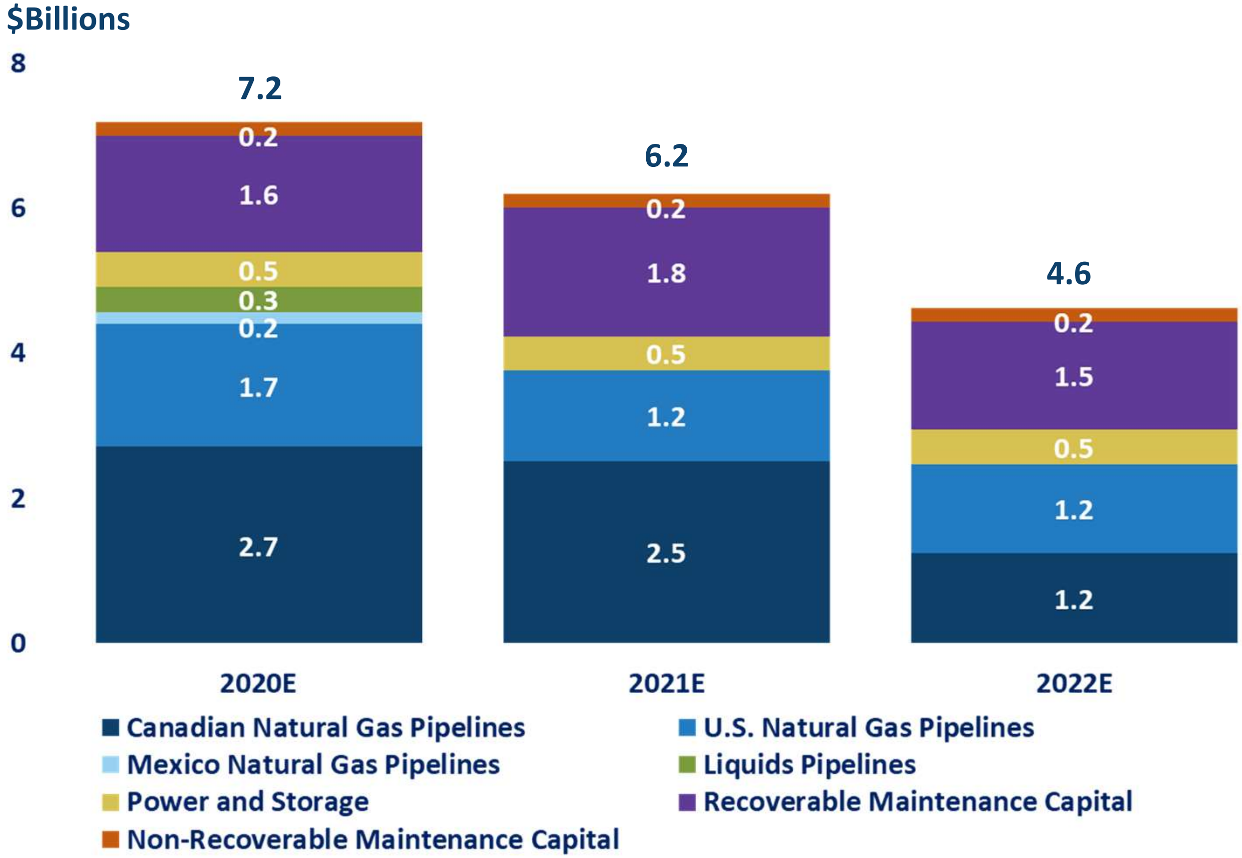
Secured growth program very high-quality and long duration



Visible multi-decade, annuity-like earnings streams

** Excludes Modernization II and maintenance capital*

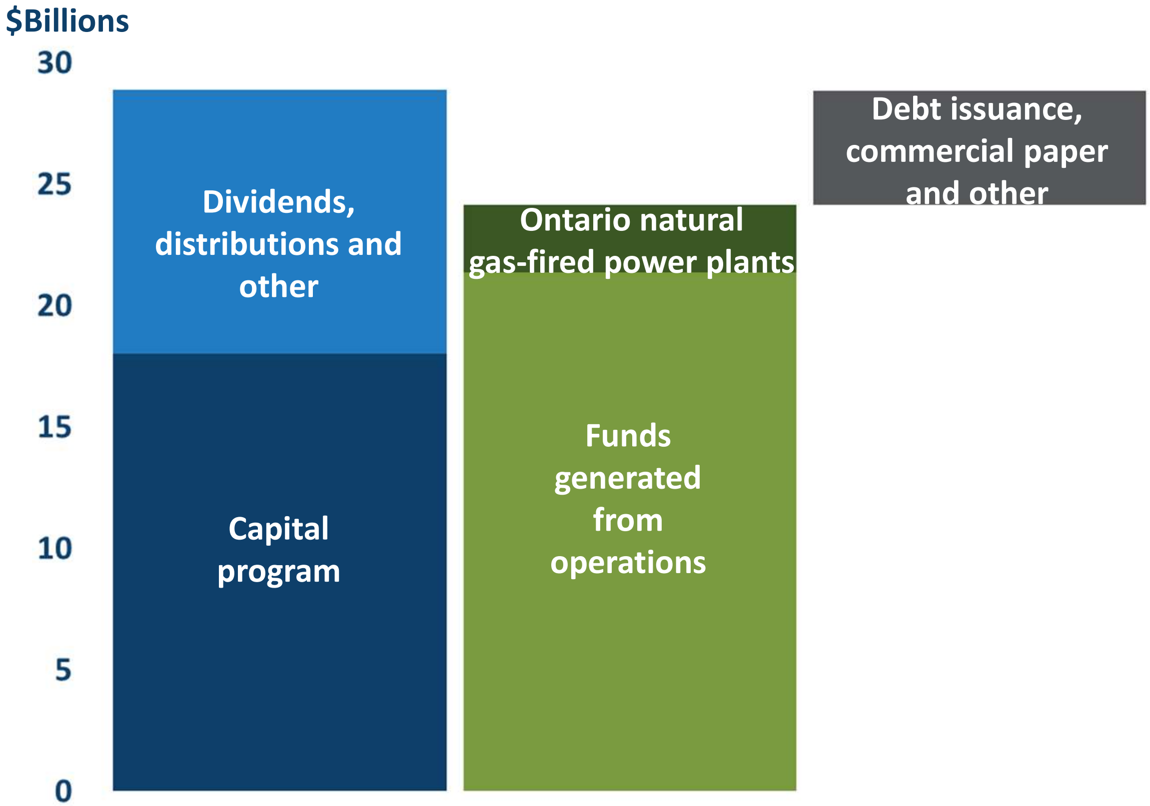
Capital expenditure outlook 2020-2022



- **Secured growth portfolio**
  - Coastal GasLink contributions assume 25% ownership and project-level construction financing
- **Maintenance capital**
  - ~90% has opportunity to earn a return on and of capital through current and future tolls
- **Capitalized interest and debt AFUDC**

$18 billion to be invested over the next three years

Funding program outlook 2020-2022



Numerous levers available

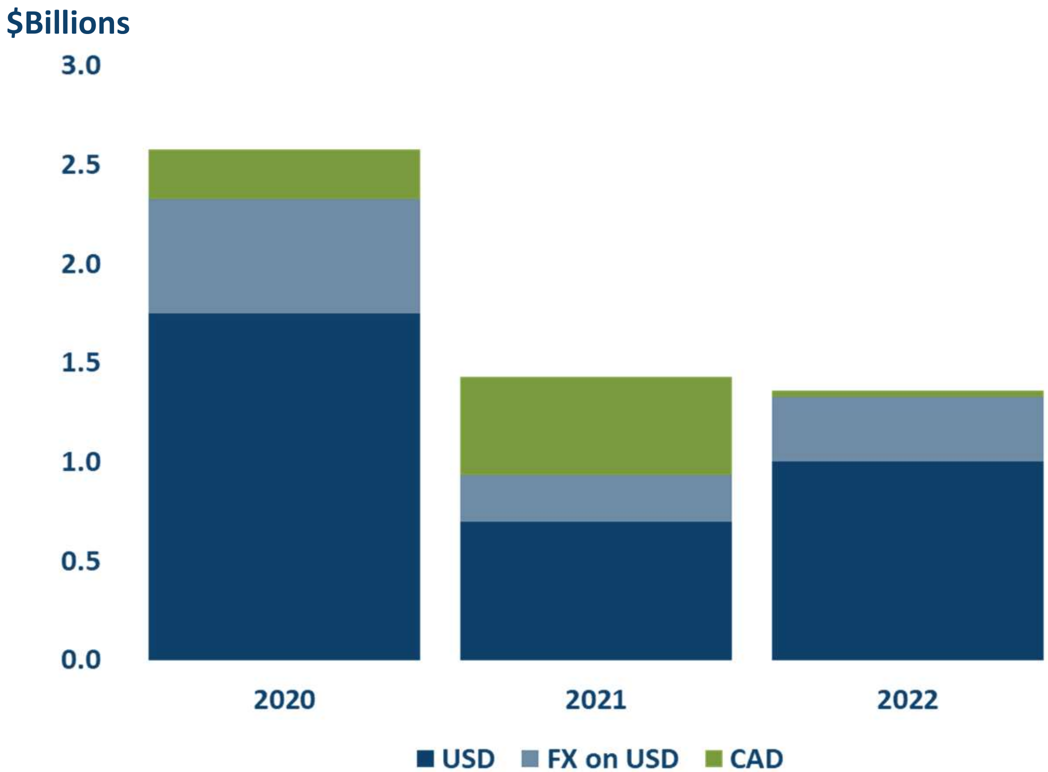
- Strong, predictable and growing cash flow from operations
- Solid access to capital markets
- Portfolio management

Finance plan design maintains targeted credit metrics

Excludes refinancing of scheduled debt maturities

Completion of secured capital program does not require additional equity

Debt maturity profile 2020-2022

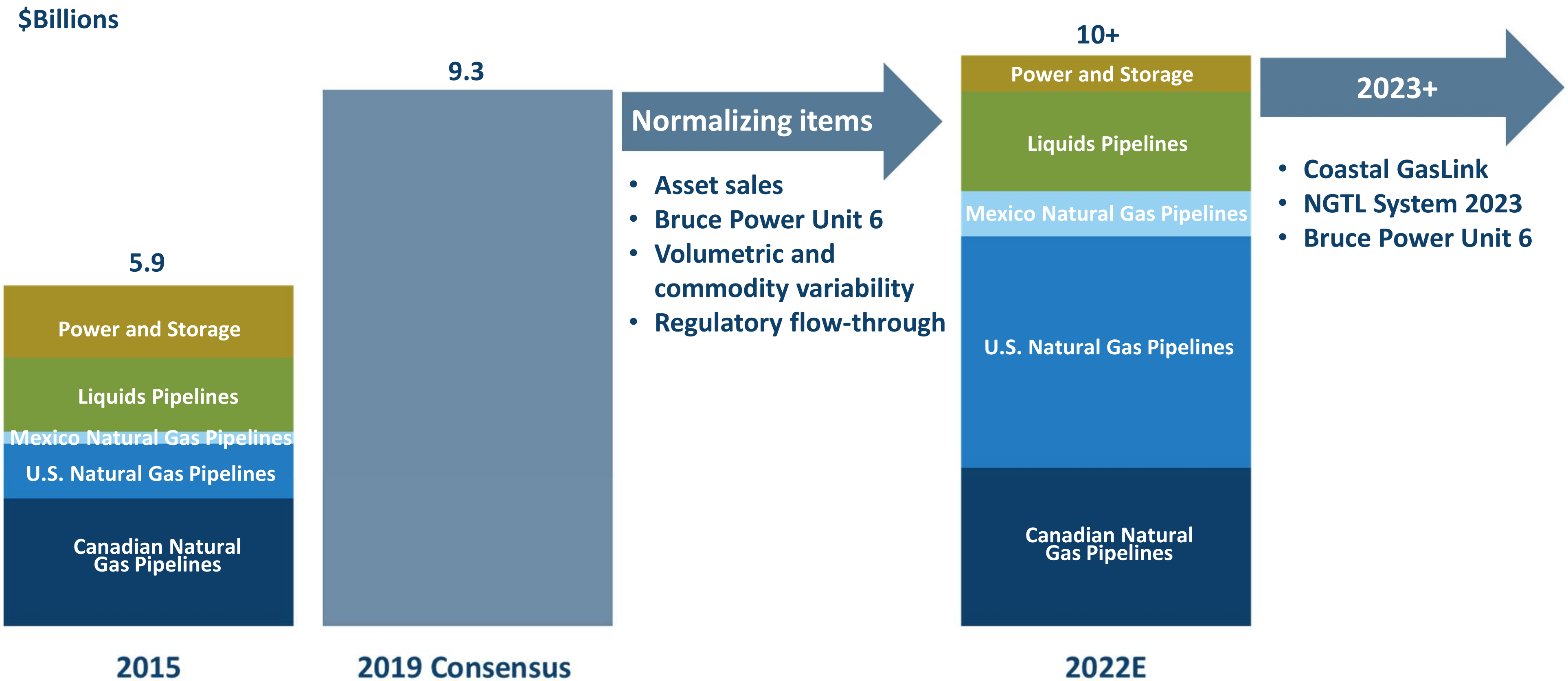


Solid liquidity and market access

- ~$10 billion of committed and undrawn credit lines
- Well supported commercial paper programs
  - Canada – $2.0 billion
  - U.S. – US$3.5 billion
- Shelf facilities in place which allow for expedited access to global capital markets

Manageable level of scheduled debt maturities through 2022

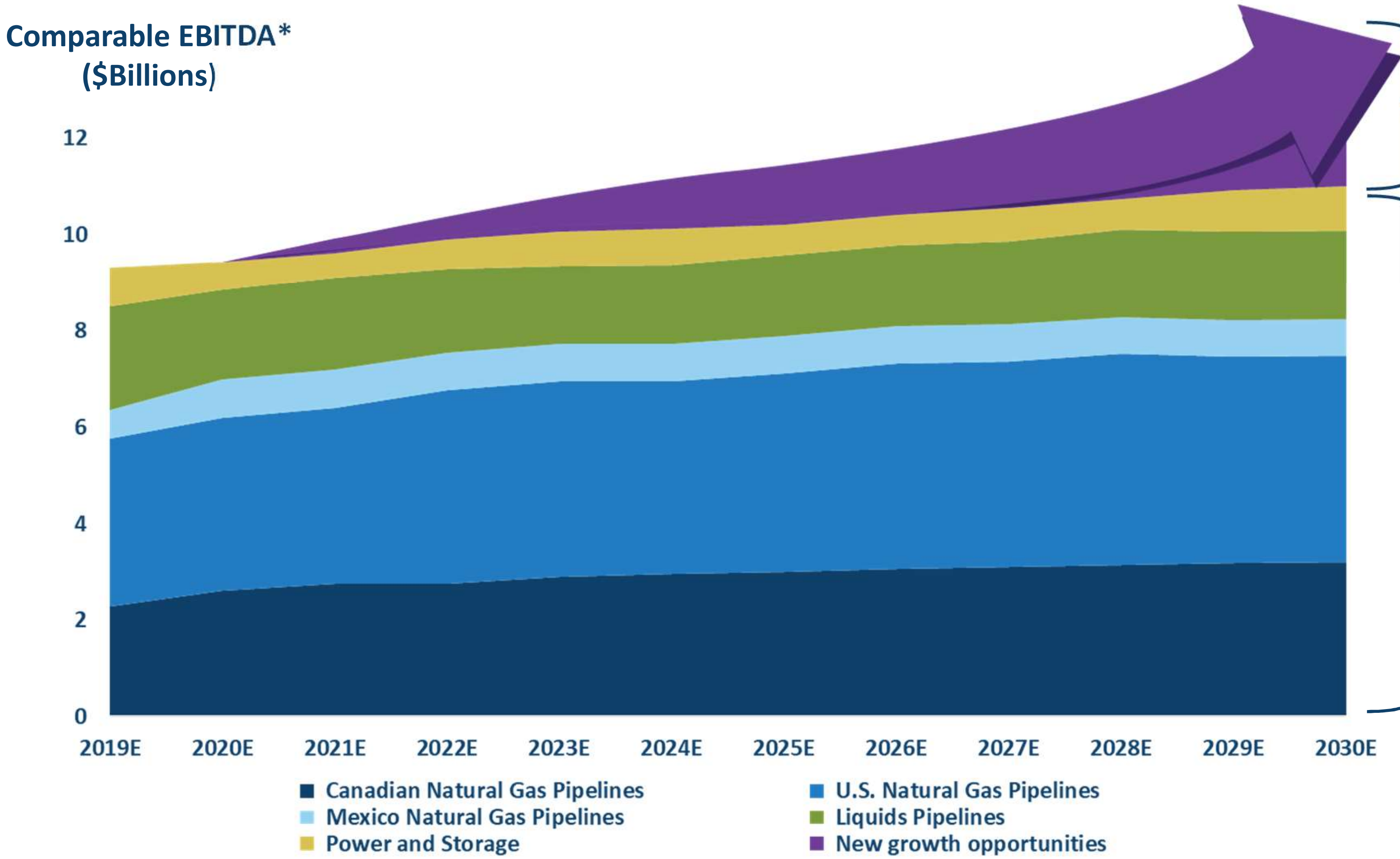
Comparable EBITDA* outlook 2015-2022E



Poised to deliver 8% CAGR through 2022E with notable improvement in quality

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Stability and longevity of core asset base



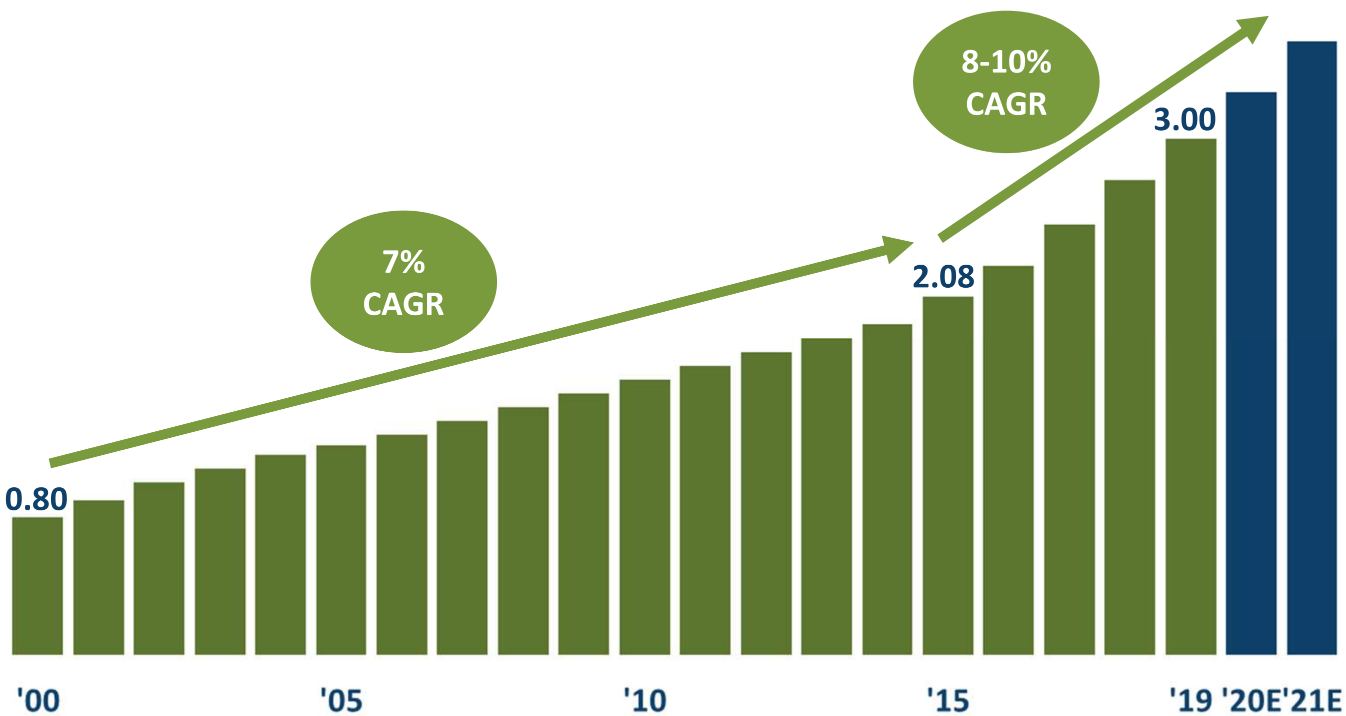
- Five growth platforms
- Balance sheet strength
- Supportive fundamentals
- Irreplaceable corridors

~$10 billion of base EBITDA visible through 2030

- Completion of $30 billion secured growth program
- Maintenance capital
- Normal-course recontracting
- Limited contribution from volumetric and commodity exposed businesses

**Comparable EBITDA is a non-GAAP measure. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.*

Continuing long track record of dividend growth



5-7%

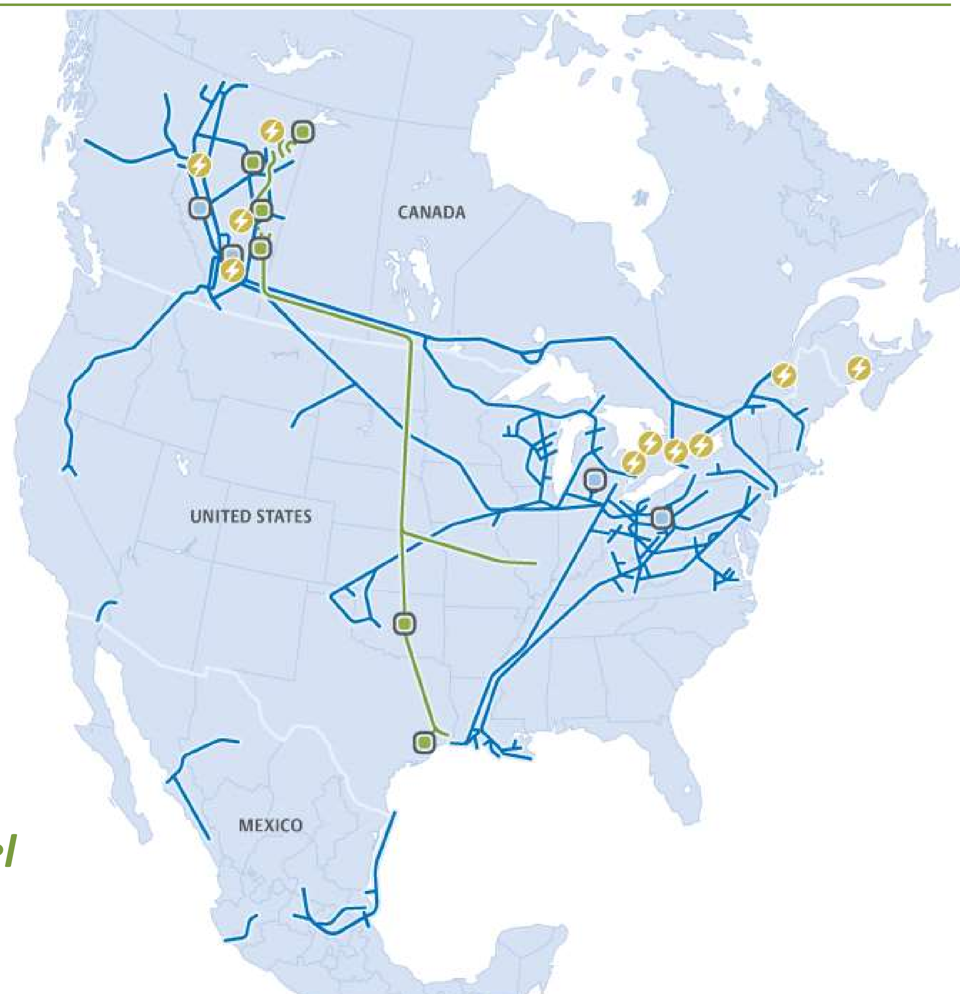
Expected organic growth per year 2021+

- $30 billion secured growth program
- Further "in-corridor" expansions
- $20 billion development portfolio
  - Keystone XL
  - Alberta liquids
  - Further Bruce refurbishments
  - Merrick Mainline
- Growth rate will depend on project mix, cadence and execution
- Legacy of opportunistic, strategic, inorganic growth but never budgeted for

Supported by expected growth in earnings and cash flow and continued strong coverage ratios

Value proposition

- ✓ Business model is simple, understandable and proven
- ✓ Strong base of visible multi-decade, low-variability earnings streams
- ✓ Positioned to be top credit in sector
- ✓ Macro environment constructive
- ✓ Irreplaceable corridors poised to capture disproportionate share of growth
- ✓ Adherence to established risk preferences will deliver attractive, appropriate returns



Double-digit TSR under low-risk business model

Finance

Don Marchand
Executive Vice-President and Chief Financial Officer

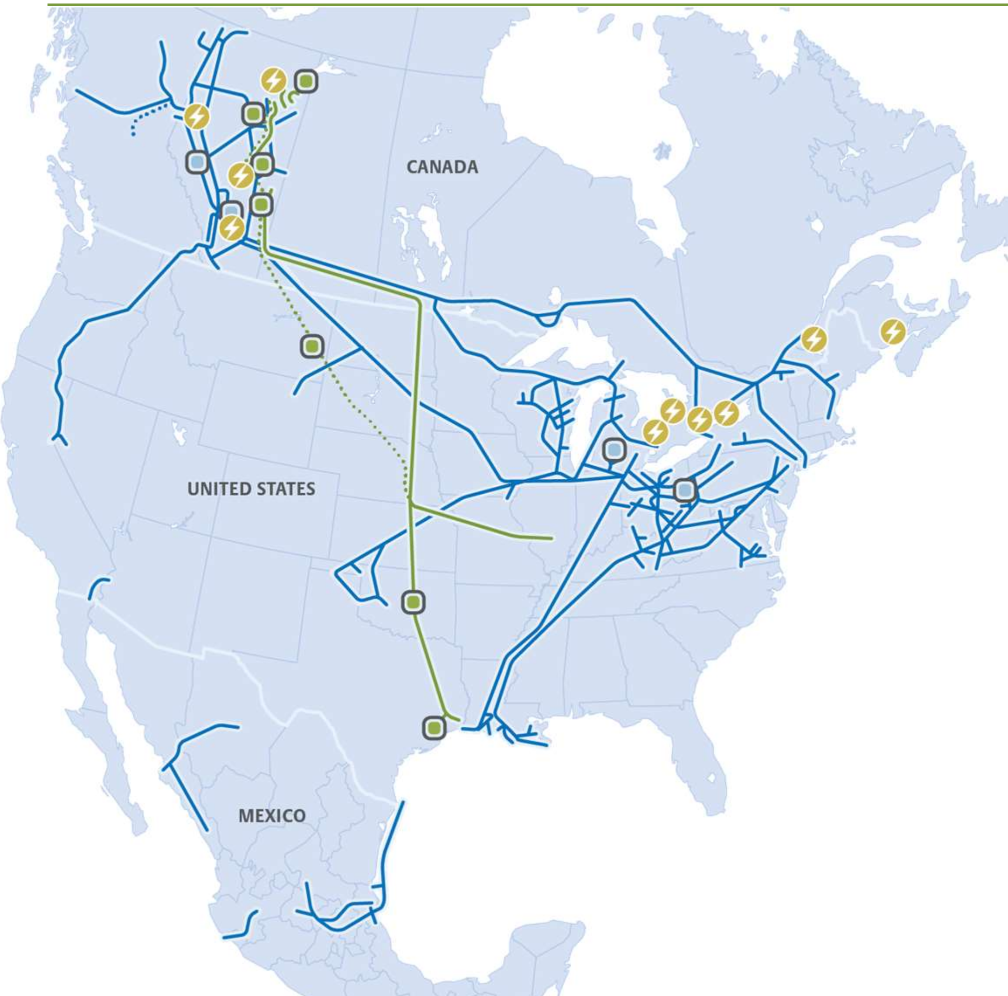
TC Energy

Closing Remarks

Russ Girling
President and Chief Executive Officer

TC Energy

A leading North American energy infrastructure company



Key takeaways

- **Proven strategy with a low-risk business model**
  - Delivered 14% average annual total shareholder return since 2000
- **Business performing very well**
  - Record financial results expected again in 2019
- **Asset footprint provides multiple platforms for growth**
  - Five operating businesses in three core geographies
- **Dividend poised to continue to grow**
  - Expected annual increases of 8 to 10% through 2021 and 5 to 7% thereafter
- **Financial strength and flexibility**
  - Consistent approach to capital allocation with a history of living within our means

Well positioned to deliver superior long-term shareholder returns

Closing Remarks

Russ Girling
President and Chief Executive Officer

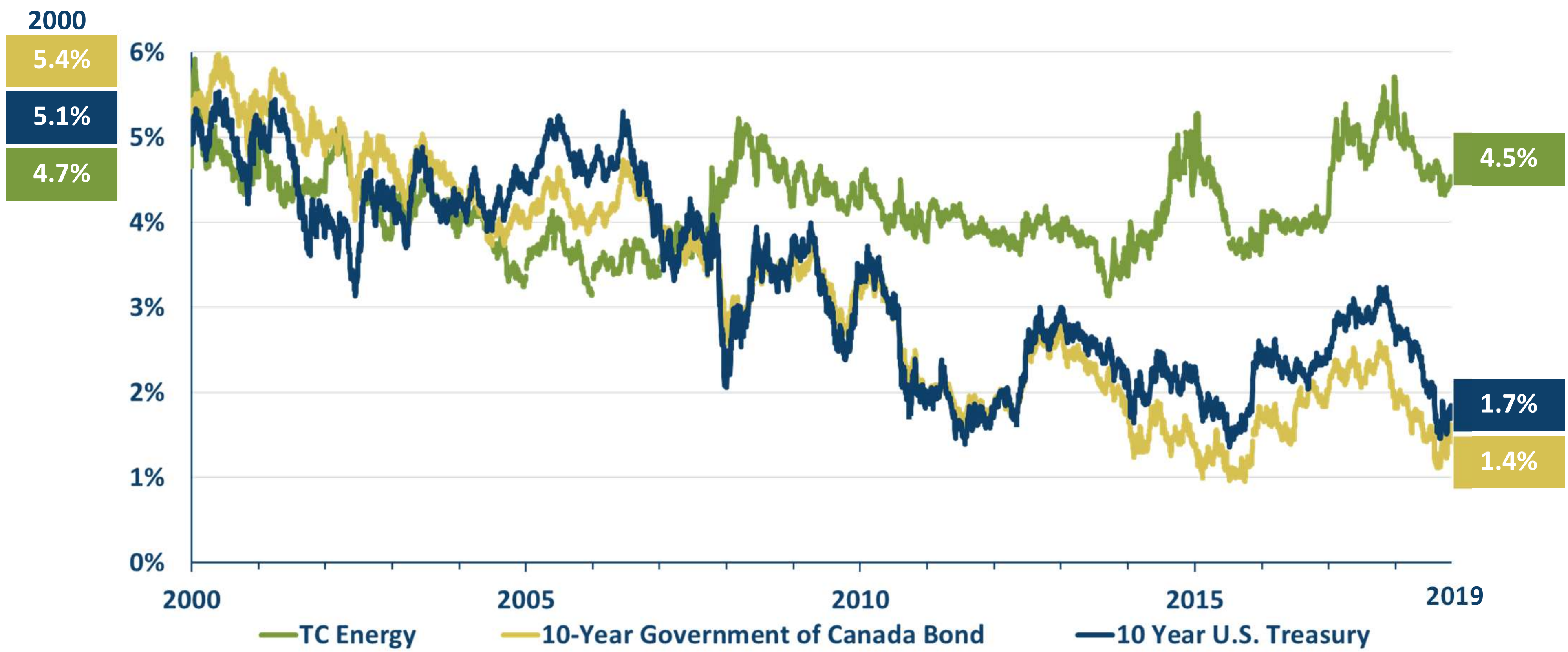
TC Energy

TC Energy Price Earnings multiple

Trading below historic average multiple despite record performance

Source: FactSet data from January 1, 2000 to October 31, 2019
**19 point year-end average*

Historic yields



The spread between Government yields and our dividend yield has widened significantly

Source: FactSet data from January 1, 2000 to October 31, 2019

Appendix – Reconciliation of Non-GAAP Measures

TC Energy

Appendix – Reconciliation of non-GAAP measures

(millions of dollars, except per share amounts)

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Net Income Attributable to Common Shares	739	928	2,868	2,447
Specific items (net of tax):				
Loss on sale of Columbia Midstream assets	133	-	133	-
Loss on Ontario natural gas-fired power plants held for sale	133	-	133	-
Gain on partial sale of Northern Courier	(115)	-	(115)	-
Gain on sale of Coolidge generating station	-	-	(54)	-
Alberta corporate income tax rate reduction	-	-	(32)	-
U.S. Northeast power marketing contracts	-	(8)	6	(3)
Risk management activities	80	(18)	(58)	90
Comparable Earnings[1]	970	902	2,881	2,534
Net Income Per Common Share	$0.79	$1.02	$3.09	$2.72
Specific items (net of tax):				
Loss on sale of Columbia Midstream assets	0.14	-	0.14	-
Loss on Ontario natural gas-fired power plants held for sale	0.14	-	0.14	-
Gain on partial sale of Northern Courier	(0.12)	-	(0.12)	-
Gain on sale of Coolidge generating station	-	-	(0.06)	-
Alberta corporate income tax rate reduction	-	-	(0.03)	-
U.S. Northeast power marketing contracts	-	(0.01)	0.01	-
Risk management activities	0.09	(0.01)	(0.06)	0.10
Comparable Earnings Per Common Share[1]	$1.04	$1.00	$3.11	$2.82
Weighted Average Basic Common Shares Outstanding (millions)	932	906	927	898

(1) Non-GAAP measure and excludes specific items. See the forward looking information and non-GAAP measures slide at the front of this presentation for more information.

Appendix – Reconciliation of non-GAAP measures continued
(millions of dollars)

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Comparable EBITDA[1]	2,344	2,056	7,051	6,110
Depreciation and amortization	(610)	(564)	(1,839)	(1,669)
Interest expense	(573)	(577)	(1,747)	(1,662)
Allowance for funds used during construction	120	147	358	365
Interest income and other included in comparable earnings	49	48	85	166
Income tax expense included in comparable earnings	(260)	(108)	(687)	(425)
Net income attributable to non-controlling interests	(59)	(59)	(217)	(229)
Preferred share dividends	(41)	(41)	(123)	(122)
Comparable Earnings[1]	970	902	2,881	2,534
Specific items (net of tax):				
Loss on sale of Columbia Midstream assets	(133)	-	(133)	-
Loss on Ontario natural gas-fired power plants held for sale	(133)	-	(133)	-
Gain on partial sale of Northern Courier	115	-	115	-
Gain on sale of Coolidge generating station	-	-	54	-
Alberta corporate income tax rate reduction	-	-	32	-
U.S. Northeast power marketing contracts	-	8	(6)	3
Risk management activities	(80)	18	58	(90)
Net Income Attributable to Common Shares	739	928	2,868	2,447

(1) Comparable EBITDA and Comparable earnings are non-GAAP measures. See the non-GAAP measures slide at the front of this presentation for more information.

Appendix – Reconciliation of non-GAAP measures continued
(millions of dollars)

	Three months ended September 30		Nine months ended September 30	
	2019	2018	2019	2018
Net Cash Provided by Operations	1,585	1,299	5,256	4,516
(Decrease)/increase in operating working capital	(140)	284	(329)	130
Funds Generated from Operations(1)	1,445	1,583	4,927	4,646
Specific items:				
Current income tax expense on sale of Columbia Midstream assets	357	-	357	-
U.S. Northeast power marketing contracts	-	(12)	8	(5)
Comparable Funds Generated from Operations(1)	1,802	1,571	5,292	4,641

(1) Funds generated from operations and comparable funds generated from operations are non-GAAP measures. See the non-GAAP measures slide at the front of this presentation for more information.