



Delivering on our Commitments



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 or other similar words.

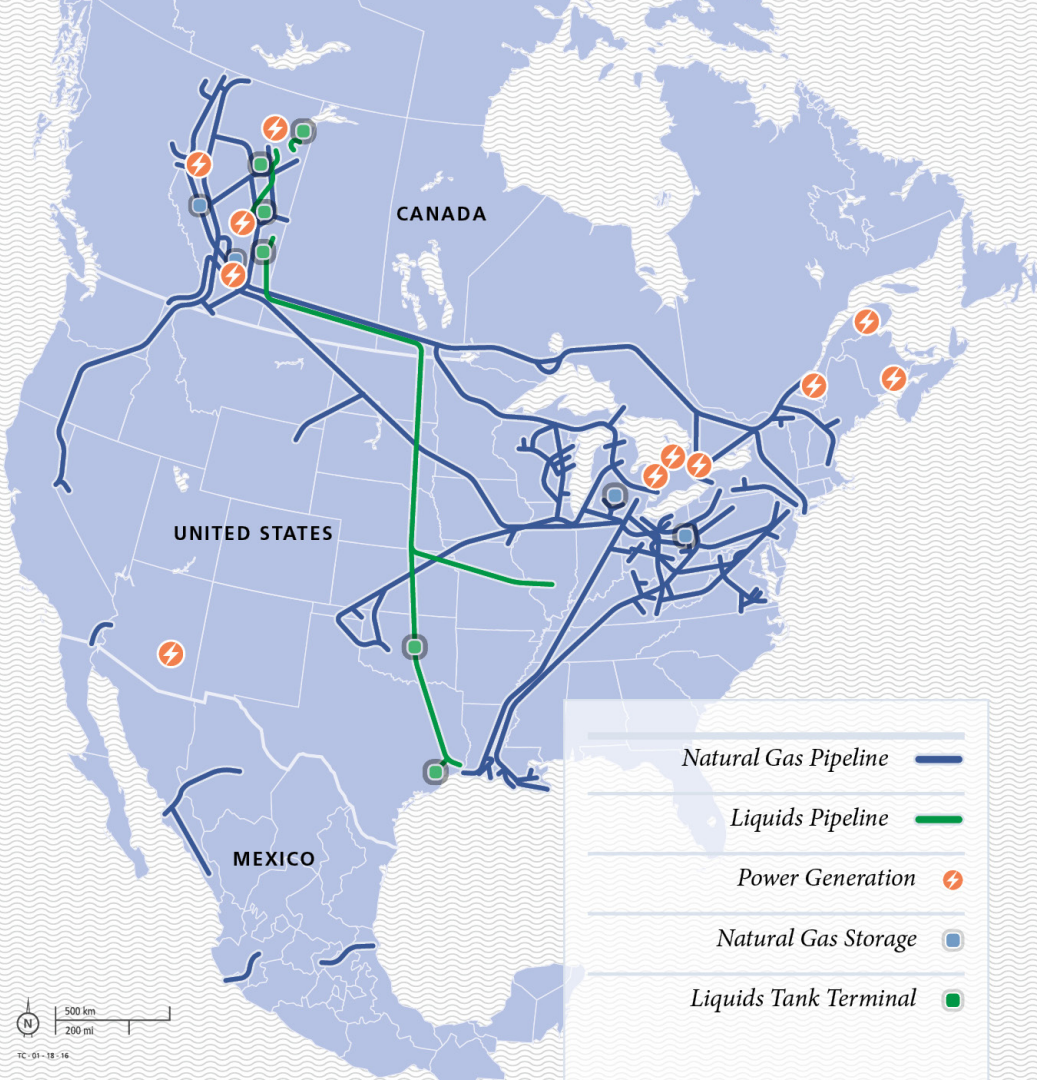
Forward-looking statements do not guarantee future performance. Actual events and results could be significantly different because of assumptions, risks or uncertainties related to our business or events that happen after the date of this presentation. Our forward-looking information in this presentation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

Our forward looking information is based on certain key assumptions and is subject to risks and uncertainties, including but not limited to: our ability to successfully implement our strategic priorities and whether they will yield the expected benefits, the operating performance of our pipeline and energy assets, amount of capacity sold and rates achieved in our pipeline businesses, the availability and price of energy commodities, the amount of capacity payments and revenues from our energy business, regulatory decisions and outcomes, including those related to recent FERC policy changes, outcomes of legal proceedings, including arbitration and insurance claims, performance and credit risk of our counterparties, changes in market commodity prices, changes in the regulatory environment, changes in the political environment, changes in environmental and other laws and regulations, competitive factors in the pipeline and energy sectors, construction and completion of capital projects, costs for labour, equipment and materials, access to capital markets, including the economic benefit of asset drop downs to TC PipeLines, LP, interest, tax and foreign exchange rates, including the impact of U.S. Tax Reform, weather, cyber security, technological developments, economic conditions in North America as well as globally. You can read more about these risks and others in our April 26, 2018 Quarterly Report to Shareholders and 2017 Annual Report filed with Canadian securities regulators and the SEC and available at www.transcanada.com.

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

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

TransCanada Today



One of North America's largest natural gas pipeline networks

- 91,900 km (57,100 mi.) of pipeline
- Transport ~25% of continental demand
- Over 650 Bcf of gas storage capacity

Premier liquids pipeline system

- 4,900 km (3,000 mi.) of pipeline
- Keystone System transports ~20% of Western Canadian exports

One of Canada's largest private sector power generators

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



Unparalleled network of critical energy infrastructure assets



Key Accomplishments in 2017

Record performance from base businesses

- Maximized throughput and enhanced contracting on natural gas pipelines
- Increased Keystone contracts to 555,000 bbl/d
- Strong operating performance from Bruce Power

Advanced \$45 billion capital growth plan

- \$5 billion in new assets entered service
- Added over \$3 billion of secured growth

Maintained financial strength and flexibility

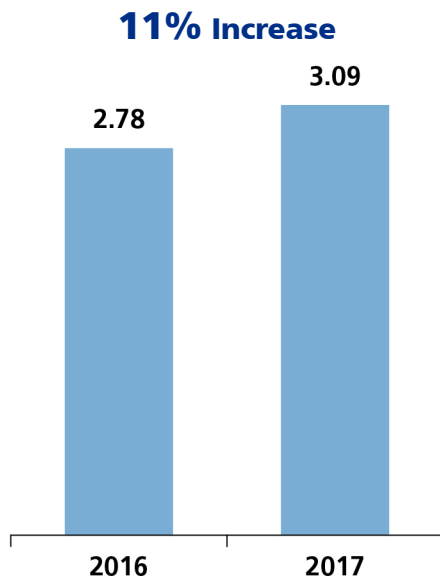
- Raised over \$6 billion in capital markets on compelling terms
- Sold U.S. Northeast power assets, repaid Columbia bridge loan facilities
- Recovered development costs for Prince Rupert Gas Transmission project and sold Ontario Solar assets for combined proceeds of ~\$1.1 billion



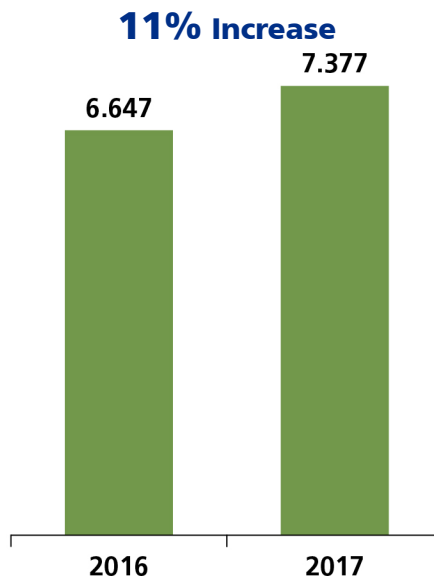
Delivered record cash flow and earnings

Record Financial Performance in 2017

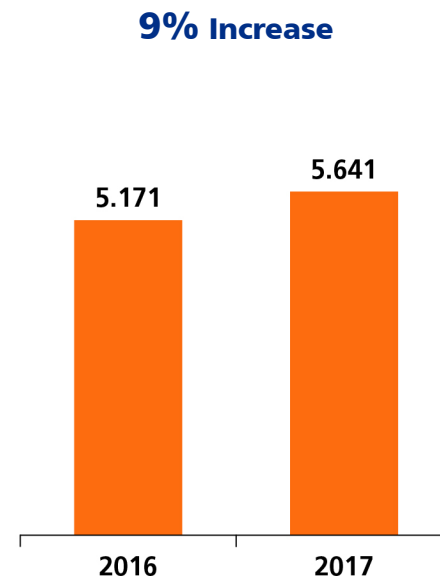
Comparable earnings per share* (Dollars)



Comparable EBITDA* (\$Billions)

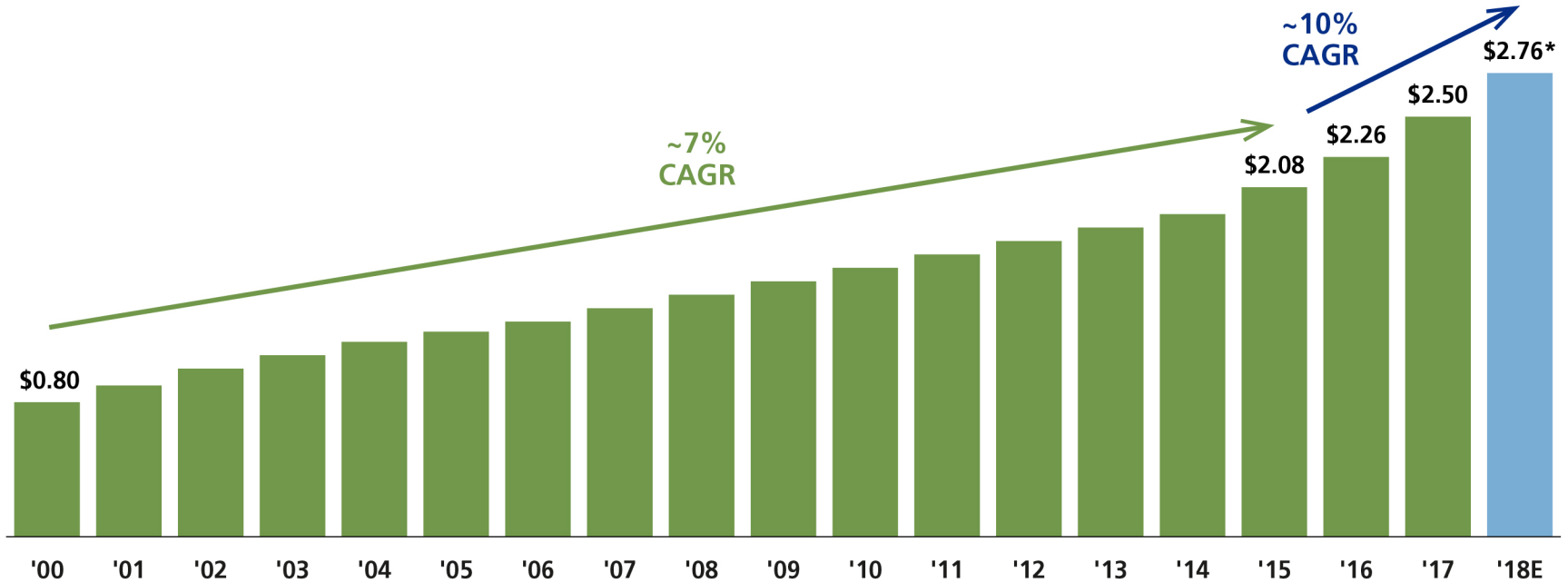


Comparable funds generated from operations* (\$Billions)



*Comparable Earnings per Share, Comparable EBITDA and Comparable Funds Generated from Operations are non-GAAP measures. See the Forward-looking Information and non-GAAP measures slide at the front of this presentation for more information.

Dividend Growth Continues

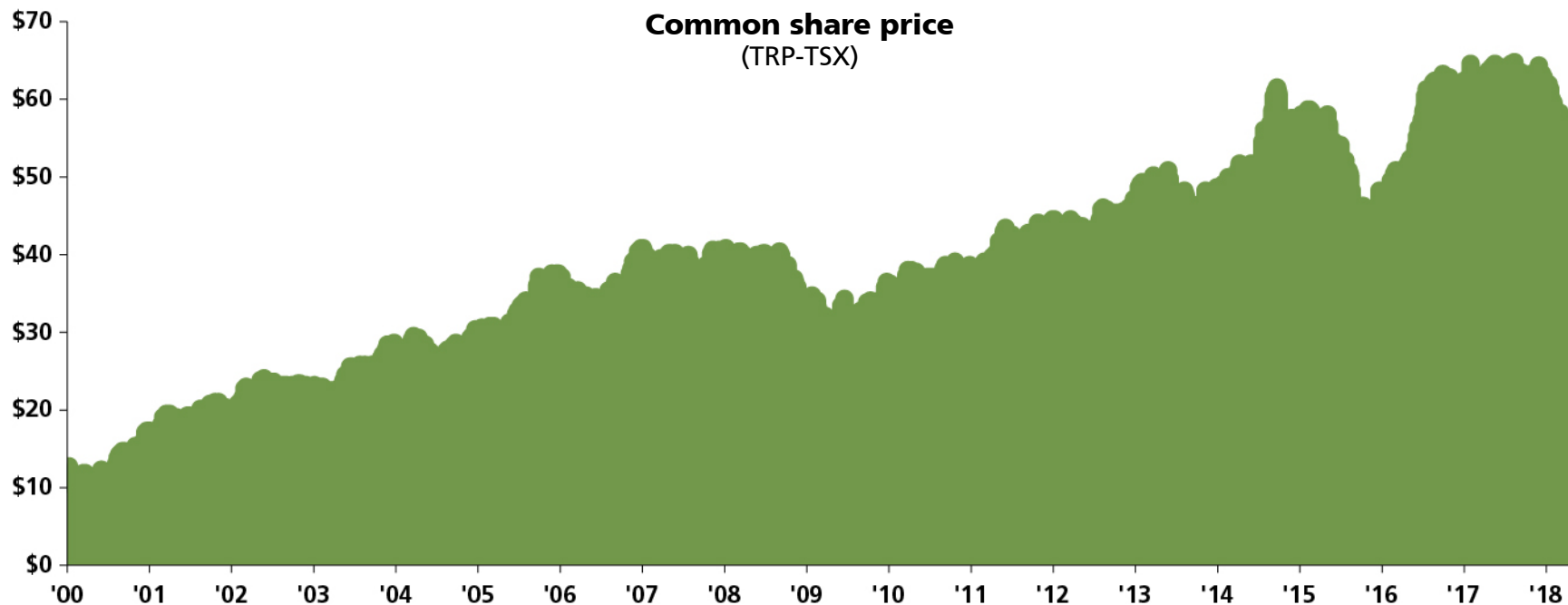


*Annualized based on second quarter declaration. CAGR is compound average annual growth rate



10.4% increase for 2018, eighteenth consecutive annual dividend increase

Delivering Long-term Shareholder Value

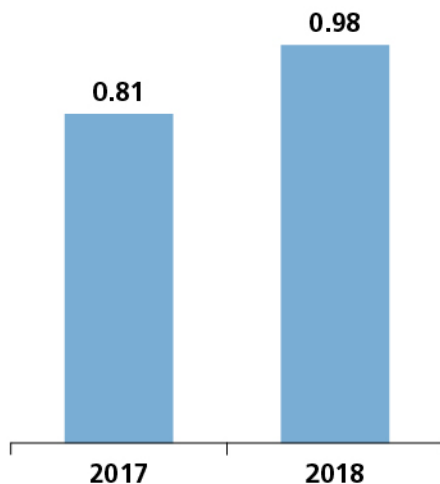


➔ 13% average annual total shareholder return since 2000

First Quarter 2018 Financial Highlights

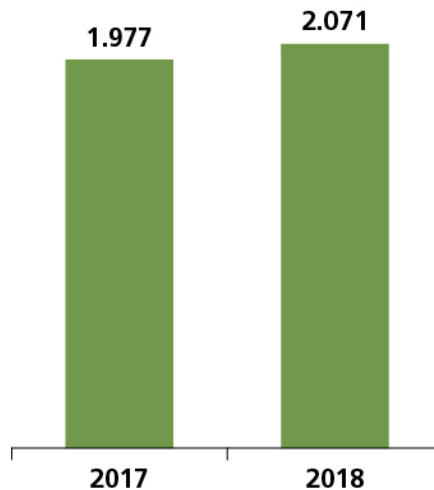
Comparable earnings per share* (Dollars)

21% Increase



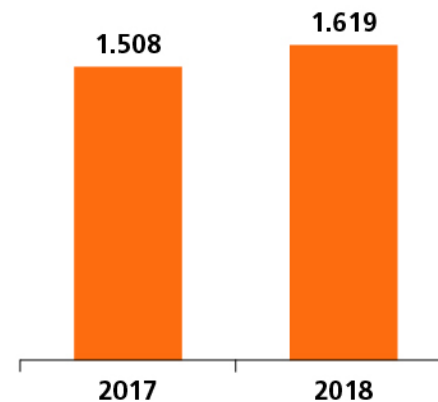
Comparable EBITDA* (\$Billions)

5% Increase



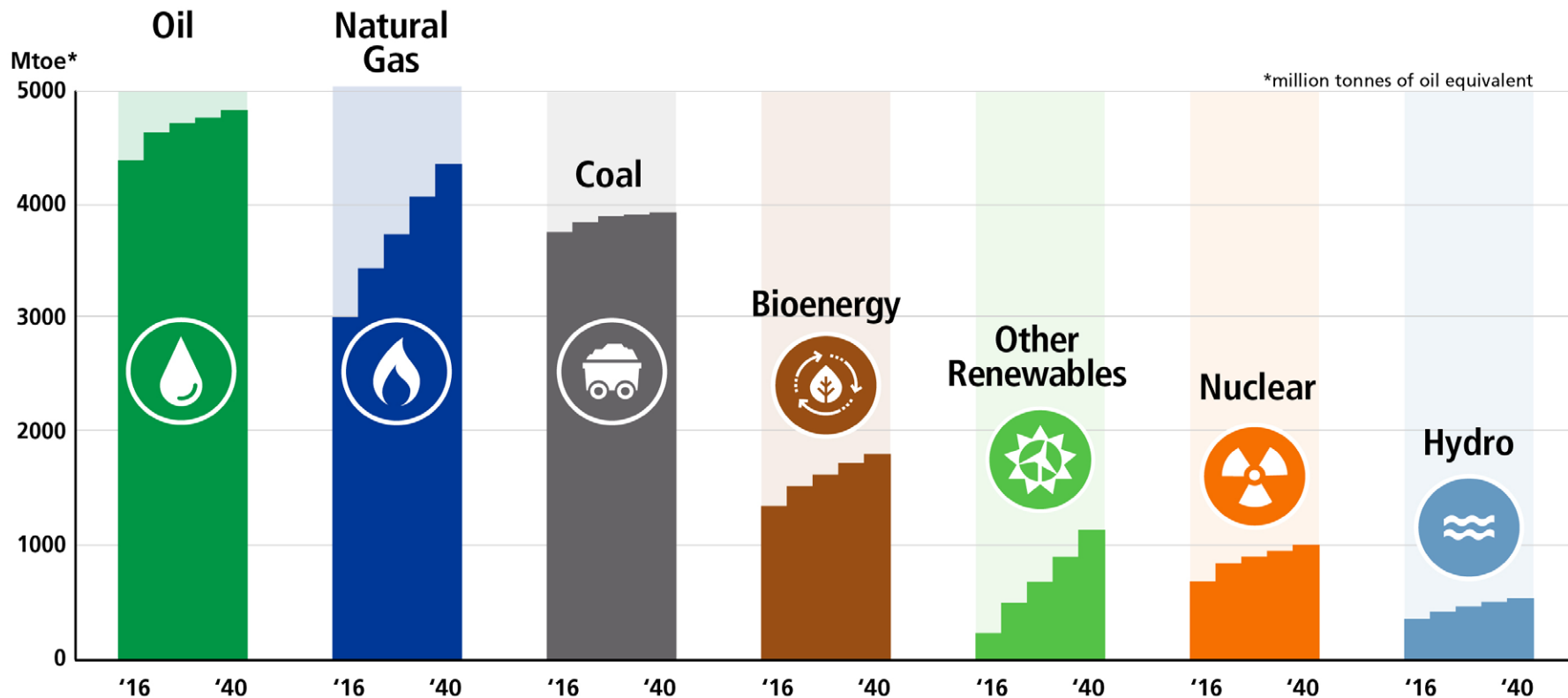
Comparable funds generated from operations* (\$Billions)

7% Increase



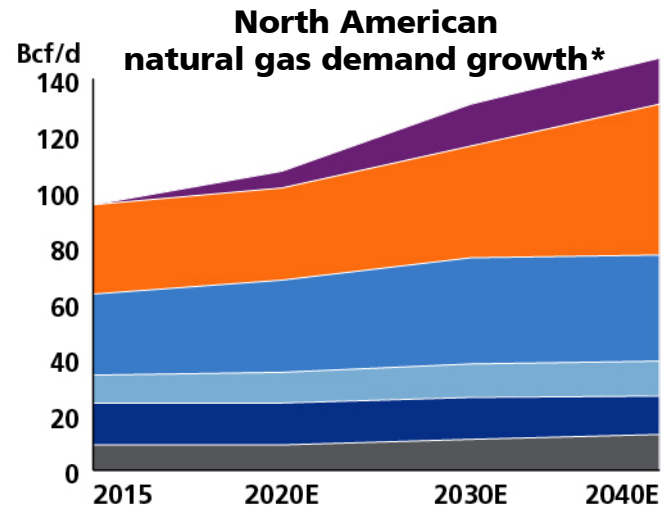
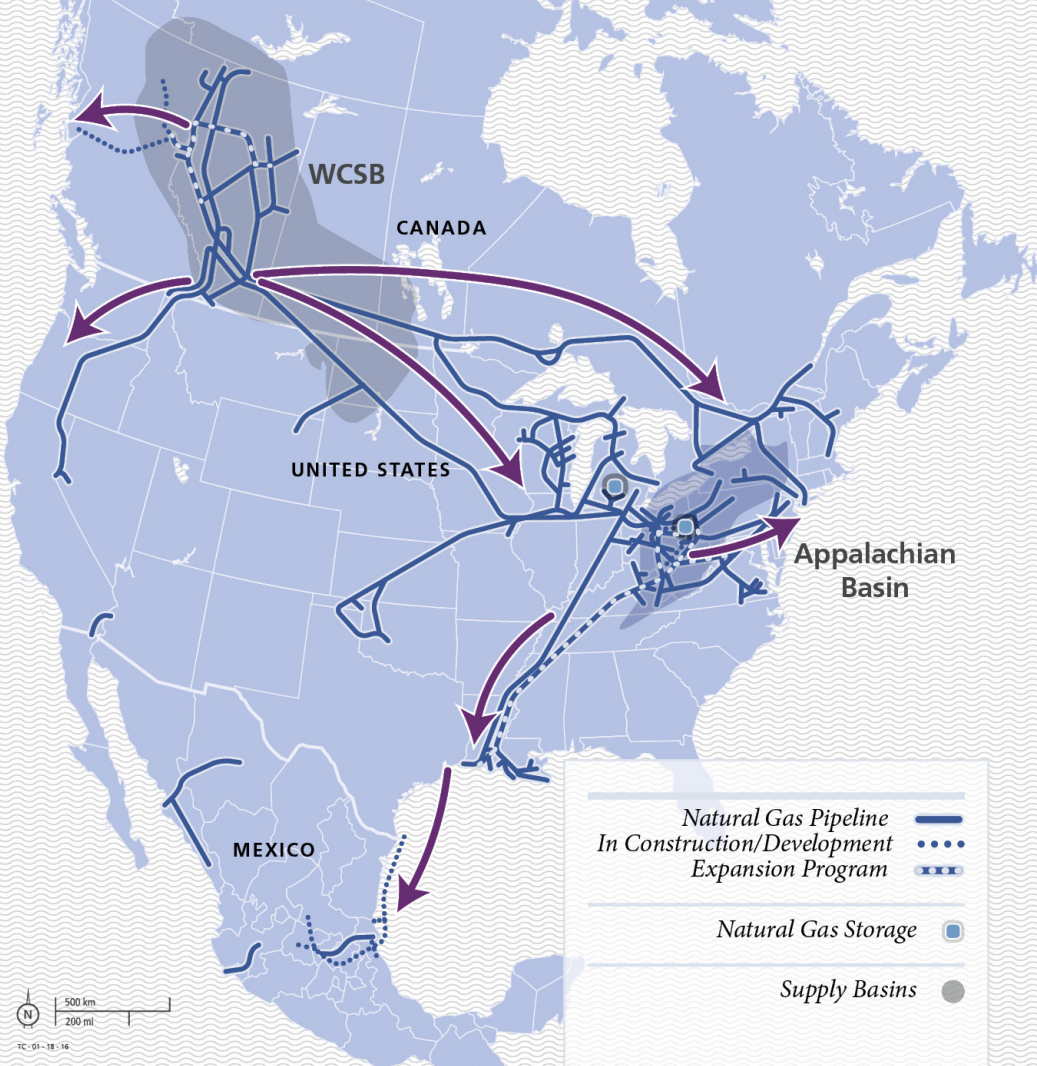
*Comparable Earnings per Share, Comparable EBITDA and Comparable Funds Generated from Operations are non-GAAP measures. See the Forward-looking Information and non-GAAP measures slide at the front of this presentation for more information.

Global Energy Demand Expected to Grow



Source: International Energy Agency

An Unparalleled Natural Gas Pipeline Network



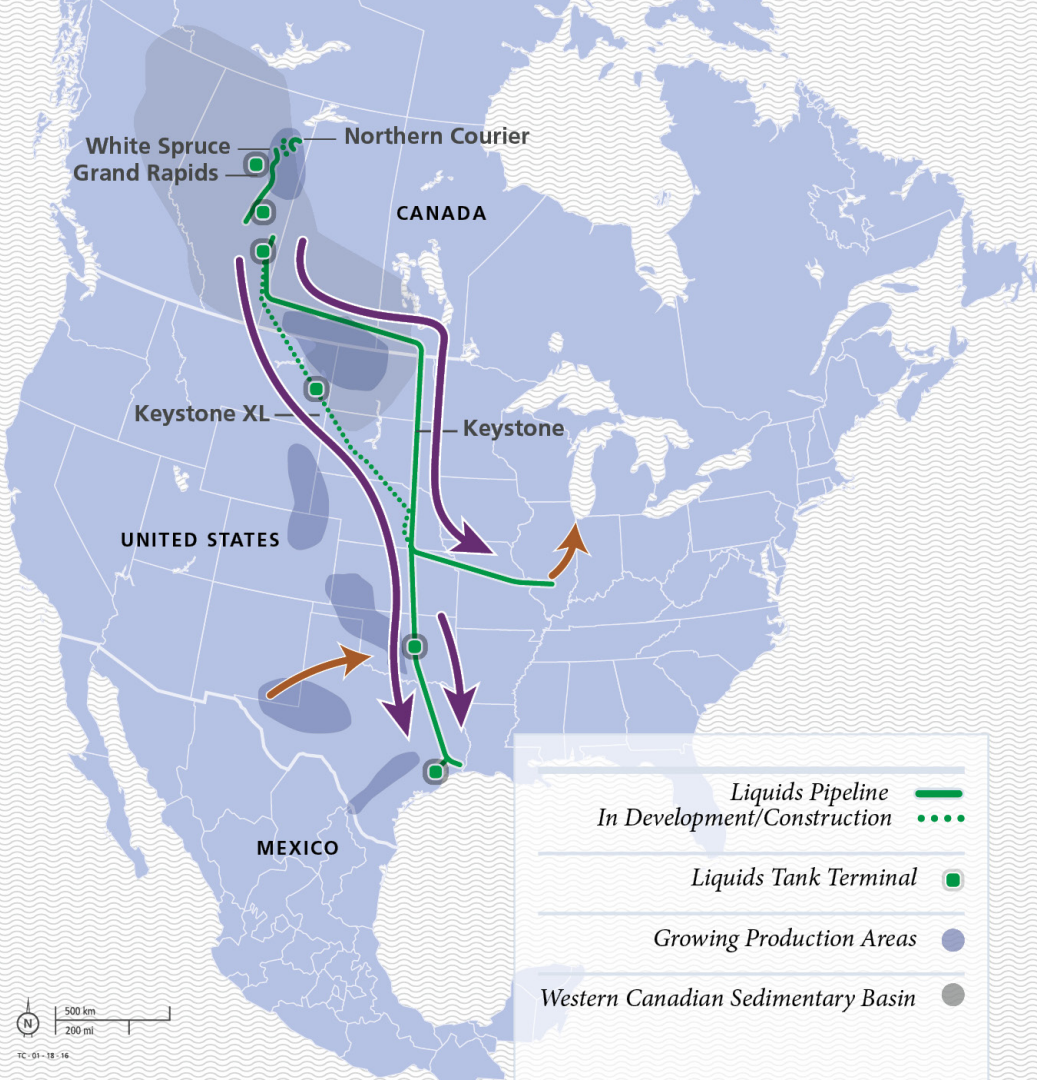
- LNG Exports
- Electric Generation
- Industrial
- Commercial
- Residential
- Pipe/Plant Fuels

* TransCanada Outlook

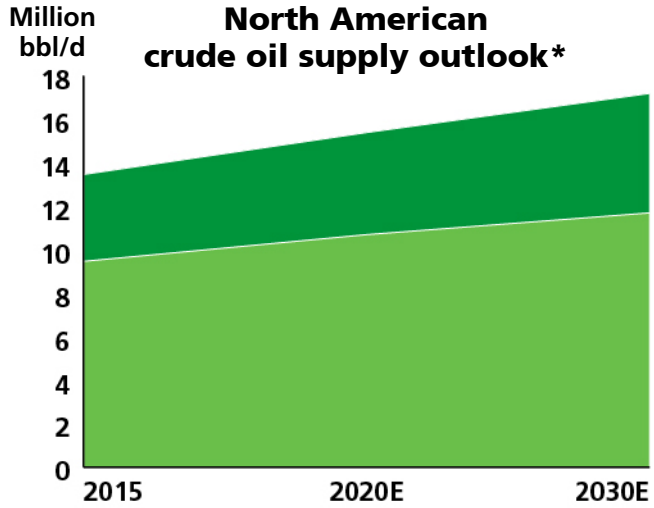
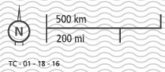


Strong positions in growing WCSB and Appalachian basins

A Premier Liquids Pipeline System



- Liquids Pipeline* ————
- In Development/Construction* - - - -
- Liquids Tank Terminal* ■
- Growing Production Areas* ●
- Western Canadian Sedimentary Basin* ●



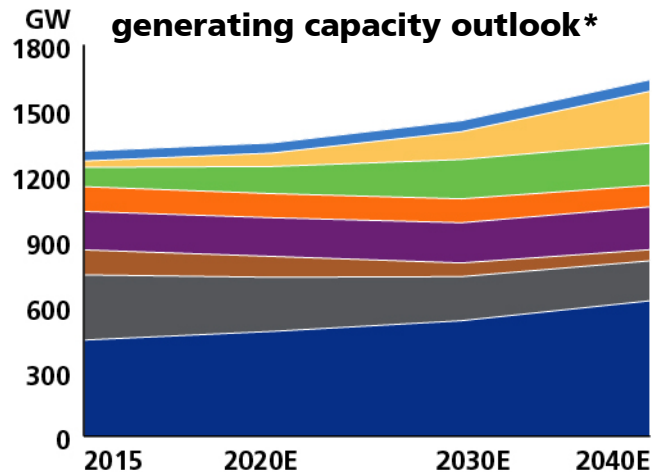
* CAPP, EIA

 Connecting growing crude oil supply to key refining markets

A Leading Power Business



North American generating capacity outlook*



* EIA International Energy Outlook 2017



~95% of generating capacity underpinned by long-term contracts

Advancing \$21 Billion Near-term Capital Program

2018

2019

2020

2021



US\$3.0
Mountaineer XPress

\$1.3
Napanee



\$0.6
NGTL System



US\$0.9
WB XPress



US\$0.8
Villa de Reyes



US\$1.3
Sur de Texas



US\$0.6
Gulf XPress

\$0.2
White Spruce

\$0.2
Canadian Mainline



US\$0.7
Tula



US\$0.3
US Other



\$2.4
NGTL System

US\$0.2
Buckeye XPress



US\$1.1
Columbia Gas Modernization



\$0.9
Bruce Power



\$1.7
NGTL System

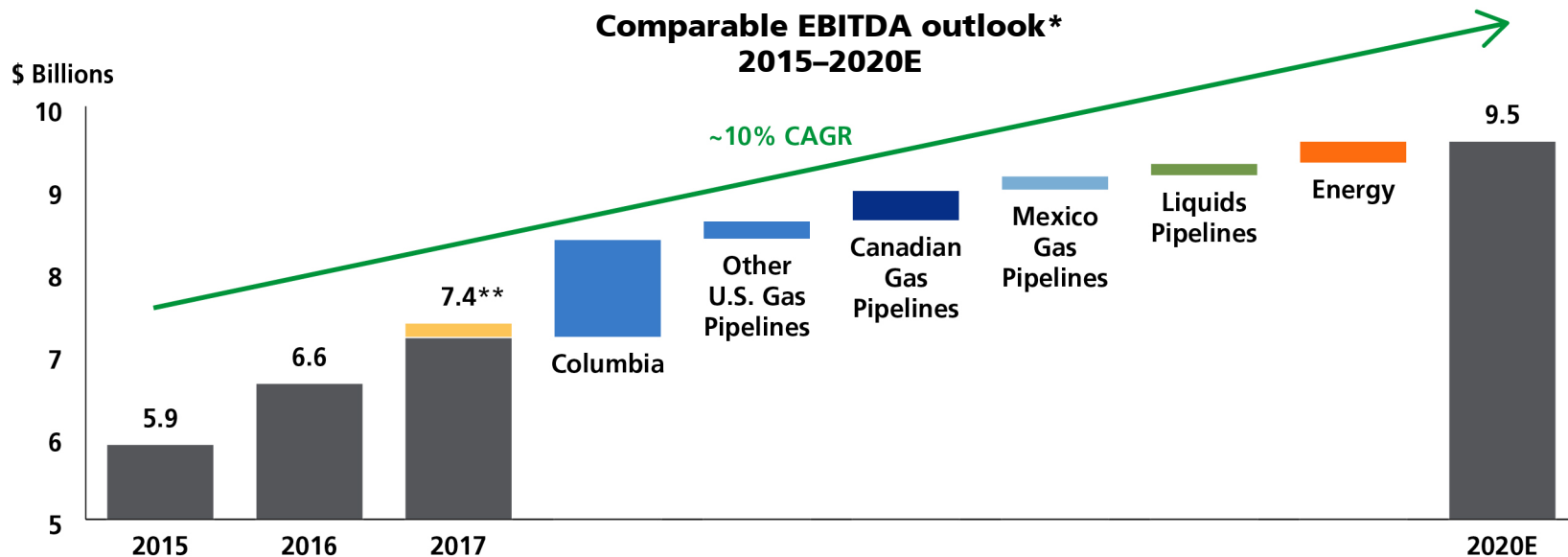
\$2.5
NGTL System



All figures in billions of dollars

-  Canada Gas Pipeline
-  U.S. Gas Pipeline
-  Mexico Gas Pipeline
-  Liquids Pipeline
-  Energy

\$21 Billion of Near-term Projects Drive Significant EBITDA Growth



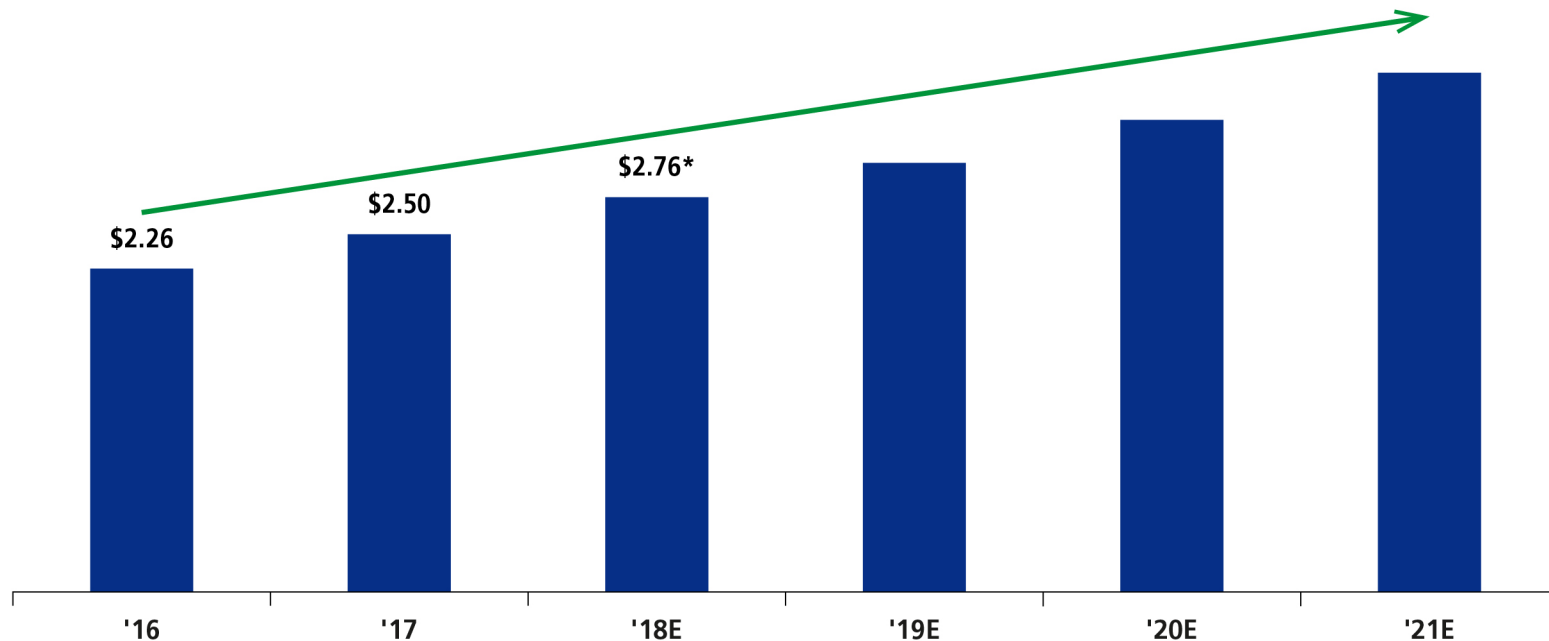
* Includes existing assets, non-controlling interests in U.S. Natural Gas Pipelines and \$21 billion of near-term projects subject to various conditions including corporate and regulatory approvals. Does not include impact of FERC actions. Comparable EBITDA is a non-GAAP measure. See the non-GAAP measures slide at the front of this presentation for more information.

** Yellow box represents EBITDA from power assets sold during 2017.



Over 95% of comparable EBITDA derived from regulated or long-term contracted assets

Dividend Growth Outlook Through 2021



* Annualized rate based on most recent quarterly dividend declared



Expect annual dividend growth at the upper end of 8 to 10% range to end of decade, further 8 to 10% growth anticipated in 2021



Funding Near-term Growth

Numerous levers available to fund near-term capital program

- Strong, predictable and growing cash flow from operations
- Access to capital markets including:
 - Senior debt
 - Hybrid securities and preferred shares
- Portfolio management
- Dividend Reinvestment Plan
- At-The-Market (ATM) program



Completion of \$21 billion near-term capital program does not require discrete equity

Visibility to Growth Beyond 2020

Natural Gas Pipelines

- NGTL/Columbia/Mexico expansions
- Coastal GasLink (~\$4.8 billion)

Liquids Pipelines

- Keystone XL (~US\$8 billion)
- Grand Rapids Phase II
- Heartland Pipeline
- Keystone Hardisty Terminal

Energy

- Bruce Power Life Extension (~\$5.3 billion*)
- Pursue growth in contracted power

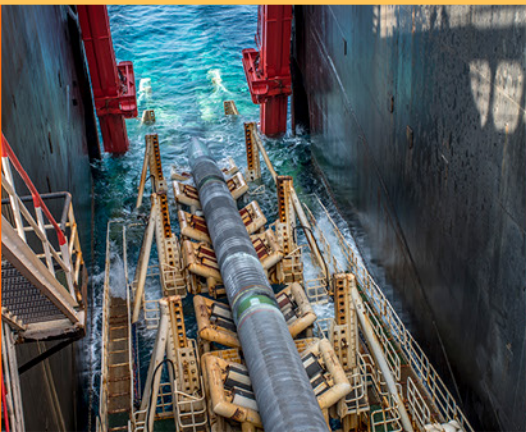
* TransCanada share in billions of dollars; Bruce Power in 2014 dollars. Certain projects are subject to various conditions including corporate and regulatory approvals.



Over \$20 billion of future growth opportunities



Delivering Energy Responsibly





Key Takeaways

Record financial performance from asset base

- Comparable EBITDA, FGFO, and EPS reached all-time highs in 2017
- Strong performance continued in first quarter 2018

Visible growth plan underpinned by energy supply and demand fundamentals

- \$21 billion near-term capital program underway
- Advancing \$20 billion+ in medium to longer-term projects

Attractive, growing dividend

- 10.4% annualized increase for 2018
- Expected annual dividend growth at the upper end of 8-10% to 2020; additional 8-10% growth expected in 2021

Maintained financial strength and flexibility

- Growing cash flow underpinned by regulated or long-term contracted assets
- Numerous levers available to fund growth

Committed to responsible development

Thanks for Your Support

