

CIBC 2018 Whistler Institutional Investor Conference January 25, 2018

Russ Girling, President & CEO



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 initiatives and whether they will yield the expected benefits, the operating performance of our pipeline and energy assets, economic and competitive conditions in North America and globally, the availability, demand for and price of energy commodities and changes in market commodity prices, the amount of capacity sold and rates achieved in our pipeline businesses, the amount of capacity payments and revenues we receive from our energy business, regulatory decisions and outcomes, outcomes of legal proceedings, including arbitration and insurance claims, performance and credit risk of our counterparties, changes in the political environment, changes in environmental and other laws and regulations, construction and completion of capital projects, labour, equipment and material costs, access to capital markets, interest, inflation, tax and foreign exchange rates, weather, cyber security and technological developments. You can read more about these risks and others in our November 8, 2017 Quarterly Report to Shareholders and 2016 Annual Report filed with Canadian securities regulators and the SEC and available at www.transcanada.com.

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

This presentation contains reference to certain financial measures (non-GAAP measures) that do not have any standardized meaning as prescribed by U.S. generally accepted accounting principles (GAAP) and therefore may not be comparable to similar measures presented by other entities. These non-GAAP measures may include Comparable Earnings, Comparable Earnings per Share, Comparable Earnings Before Interest, Taxes, Depreciation and Amortization (Comparable EBITDA), Funds Generated from Operations, Comparable Funds Generated from Operations, Comparable Distributable Cash Flow (DCF) and Comparable DCF per share. Reconciliations to the most closely related GAAP measures are included in this presentation and in our November 8, 2017 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

- 91,500 km (56,900 mi) of pipeline
- 653 Bcf of storage capacity
- 23 Bcf/d; ~25% of continental demand

Premier Liquids Pipeline System

- 4,800 km (3,000 mi) of pipeline
- 555,000 bbl/d Keystone System transports ~20% of Western Canadian exports

• One of the Largest Private Sector Power Generators in Canada

- 11 power plants, 6,100 MW
- Primarily long-term contracted assets
- Enterprise Value Over \$100 billion

Advancing \$24 Billion Near-Term Capital Program

White Spruce	"The	Project	Estimated Capital Cost*	Invested to Date	Expected In-Service Date*
NGTL System	< 1 Lamone	Northern Courier	1.0	1.0	In-Service
Expansions	nd and a	Rayne XPress	US 0.4	US 0.4	In-Service
		Gibraltar	US 0.3	US 0.2	In-Service
	and the second	Modernization I	US 0.2	US 0.2	2017
		NGTL System	2.3	1.5	2017
		Canadian Mainline	0.5	0.2	2017-2019
	15 4	NGTL System	4.8	0.5	2018-2021+
ALL ALL Z	Canadian	Leach XPress	US 1.6	US 1.3	2018
	Mainline Expansions Napanee	WB XPress	US 0.8	US 0.3	2018
Bruce	ower + s	Mountaineer XPress	US 2.6	US 0.4	2018
		Cameron Access	US 0.3	US 0.2	2018
		Gulf XPress	US 0.6	US 0.2	2018
	- Continue	Tula	US 0.6	US 0.5	2018
" I I I I I I I I I I I I I I I I I I I	and the base	Villa de Reyes	US 0.6	US 0.4	2018
	olumbia	Sur de Texas	US 1.3	US 0.7	2018
	pansions	White Spruce	0.2	-	2018
		Napanee	1.1	0.9	2018
		Modernization II	US 1.1	US 0.1	2018-2020
		Buckeye XPress	US 0.2	-	2020
	Natural Cas Dinalina	Other U.S. Gas	US 0.4	US 0.1	2017-2020
	Natural Gas Pipeline Natural Gas Expansions	Bruce Power Life Extension	1.0	0.2	Up to 2020+
	Liquids Pipeline	Foreign Exchange Impact (1.25 exchange rate)	2.8	1.2	-
Villa de Reyes	Power Facilities Existing Assets	Total Canadian Equivalent	24.7	10.5	
Tula	LAISTING ASSELS				

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

Columbia Acquisition & Near-term Capital Program Drive Significant Growth



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

Funding Program Through 2020



Funding Program Manageable Completion of \$24 Billion Near-Term Capital Program Does Not Require Discrete Equity

Visibility to Growth Beyond 2020



Natural Gas Pipelines

- NGTL/Columbia/Mexico expansions (assets that will produce recurring growth opportunities)
- Coastal GasLink (~\$4.8 billion)

Liquids Pipelines

- Keystone XL (~US\$8 billion)
- Keystone XL could facilitate further development:
 - Grand Rapids Phase II
 - Heartland Pipeline
 - Keystone Hardisty Terminal

Energy

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

Over \$20 Billion of Future Growth Opportunities

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

Dividend Growth Outlook Through 2021



Supported by Expected Growth in Earnings and Cash Flow and Continued Strong Coverage Ratios

Key Takeaways

Track Record of Delivering Long-Term Shareholder Value

14% average annual return since 2000

Visible Growth Portfolio

\$24 billion to 2020 Additional opportunity set includes over \$20 billion of medium to longer-term projects

Attractive, Growing Dividend

4.1% yield 8-10% expected CAGR through 2021

Strong Financial Position

`A' grade credit rating Numerous levers available to fund future growth

Performance Highlights Diversified, Low Risk Business Strategy



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