

CIBC 2016 Whistler Institutional Investor Conference January 21, 2016

Russ Girling, President & CEO



Forward Looking Information and Non-GAAP Measures



This presentation includes certain forward looking information 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 is based on the following key assumptions: inflation rates, commodity prices and capacity prices, timing of financings and hedging, regulatory decisions and outcomes, foreign exchange rates, interest rates, tax rates, planned and unplanned outages and the use of our pipeline and energy assets, integrity and reliability of our assets, access to capital markets, anticipated construction costs, schedules and completion dates, acquisitions and divestitures.

Our forward looking information 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 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 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 and foreign exchange rates, weather, cyber security and technological developments. You can read more about these risks and others in our most recent Quarterly Report to Shareholders and 2014 Annual Report filed with Canadian securities regulators and the U.S. Securities and Exchange Commission (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, Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA), Comparable EBITDA, Earnings Before Interest and Taxes (EBIT), Comparable EBIT, Comparable Interest Expense, Comparable Interest Income and Other, Comparable Income Taxes, Funds Generated from Operations and Distributable Cash Flow. Reconciliations to the most closely related GAAP measures are included in our most recent Quarterly Report to Shareholders filed with Canadian securities regulators and the SEC and available at www.transcanada.com.

Natural Gas Pipeline Liquids Pipeline Power Plants Natural Gas Storage

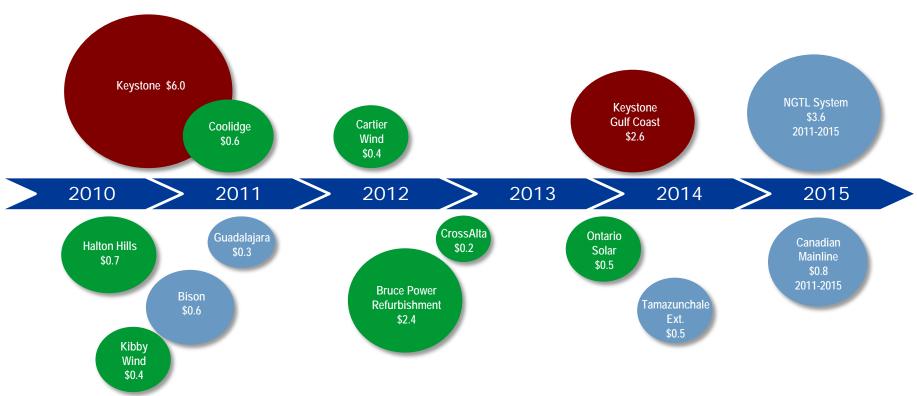
Unparalleled Portfolio of Complementary Energy Infrastructure Assets

TransCanada Today

- One of North America's Largest Natural Gas Pipeline Networks
 - 68,000 km (42,000 mi) of pipeline
 - 368 Bcf of storage capacity
 - 14 Bcf/d or 20% of continental demand
- Premier Liquids Pipeline System
 - 4,250 km (2,600 mi) of pipeline
 - 545,000 bbl/d or 20% of Western Canadian exports
- Largest Private Sector Power Generator in Canada
 - 19 power plants, 11,500 MW
- Total Assets ~ \$66 billion

\$20 Billion of Assets Placed In-Service since 2010



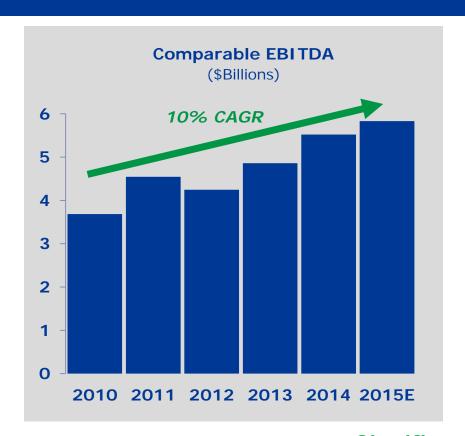


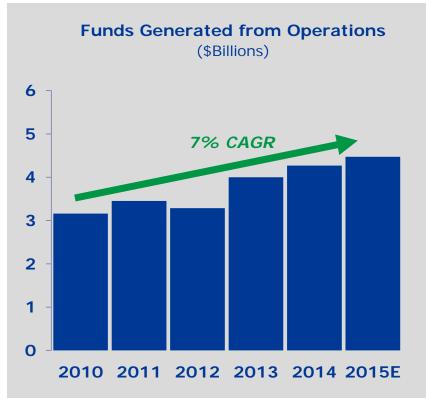
Underpinned by Long-Term Contracts or Cost-of-Service Regulation

^{*} TransCanada share in billions of Canadian dollars

Capital Investment Drives Strong Financial Performance







Significant Growth in Comparable EBITDA and Funds Generated from Operations

\$14 Billion of Visible Near-Term Growth Projects





Project	Capital Cost*	Expected In-Service Date*
Houston Lateral & Terminal	US0.6	2016
Ironwood Acquisition	US0.7	2016
Topolobampo	US1.0	2016
Mazatlan	US0.4	2016
Canadian Mainline	0.4	2015-2016
NGTL System	5.5	2015-2018
Grand Rapids	1.5	2016-2017
U.S. Natural Gas Pipelines	US0.5	2016-2018
Tuxpan-Tula	US0.5	2017
Northern Courier	1.0	2017
Napanee	1.0	2017-2018
Bruce Power Life Extension	1.4	2015-2020
Total	14.5	

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

\$45 Billion of Commercially Secured Long-Term Projects*

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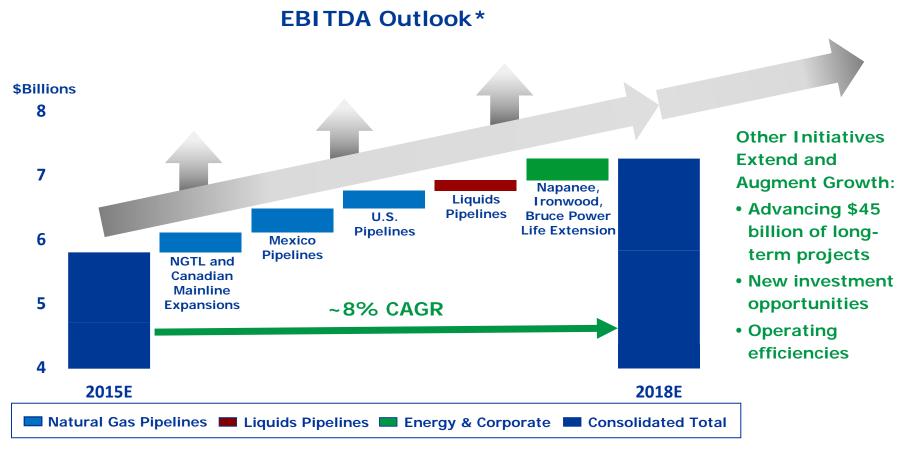




- Includes four transformational projects
 - Energy East (\$15.7 billion) and related Eastern Mainline Expansion (\$2.0 billion)
 - Keystone XL (US\$8 billion)
 - Prince Rupert Gas Transmission (\$5 billion)
 - Coastal GasLink (\$4.8 billion)
- Establish us as leaders in the transportation of crude oil and natural gas for LNG export
- 2 million bbl/d of liquids pipeline capacity
- 4+ Bcf/d of natural gas pipeline export capacity
- Bruce Power Life Extension Agreement
 - Asset Management and Major Component Replacement post-2020 (\$5.3 billion)
 - Extends operating life of facility to 2064

Capital Program Drives Significant Growth

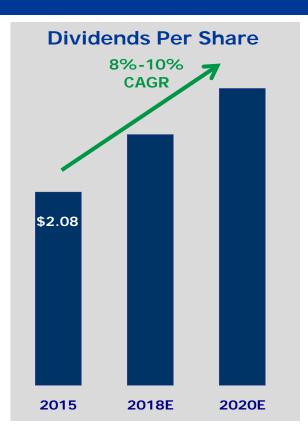


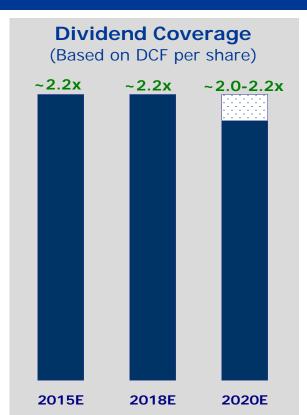


^{*} Includes existing assets, non-controlling interests in U.S. Natural Gas Pipelines and \$14 billion of commercially secured projects largely expected to be in service by 2018, subject to various conditions including corporate and regulatory approvals

Committed to 8-10% Annual Dividend Growth Through 2020







Supported by:

- High-quality asset base generating predictable and long-life cash flow
- \$14 billion of near-term growth projects
- Proven ability to find attractive investment opportunities
- Strong dividend coverage

Success in Advancing Other Growth Initiatives Extends and Augments Future Dividend Growth



Track Record of Delivering Long-Term Shareholder Value

13% average annual return since 2000

Visible Growth Portfolio

\$14 billion through 2018 Additional opportunity set includes \$45 billion of long-term projects

Attractive, Growing Dividend

4.8% yield at current rate 8-10% CAGR through 2020

Strong Financial Position

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

Attractive Valuation Relative to North American Peers



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