Third Quarter 2017 Conference Call

November 9, 2017

TransCanada
In business to deliver

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, the future growth of our Mexico natural gas pipeline business and our successful integration of Columbia.

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 including the expected benefits of the acquisition of Columbia and the expected growth of our Mexico natural gas pipeline business, 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 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.

Russ Girling

President & CEO

Third Quarter 2017 Highlights

Generated solid financial results

- Comparable earnings were $0.70 per share
- Comparable funds generated from operations of $1.3 billion

Declared quarterly dividend of $0.625 per common share

- Equivalent to an annualized $2.50 per share, a 10 per cent increase over 2016

Advancing $24 billion near-term capital program

- $900 million Grand Rapids Pipeline entered service in August 2017

Raised $1.0 billion to help fund capital program

- Included $0.7 billion of 30-year and $0.3 billion of 10.5-year medium term notes in Canada

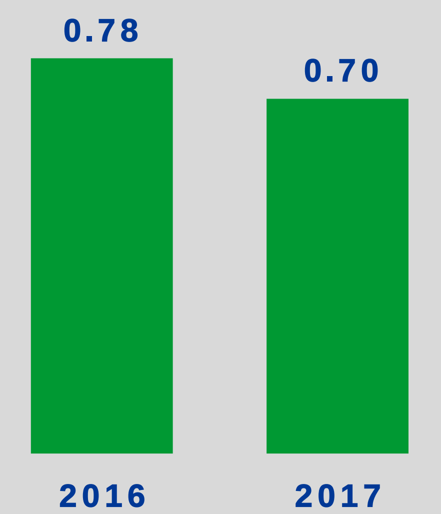
Other recent developments

- Reimbursed for development costs incurred on Prince Rupert Gas Transmission project and agreed to sell Ontario Solar assets; total proceeds of approximately $1.1 billion will help fund capital program
- Long-term fixed price (LTFP) service on Canadian Mainline commenced November 1

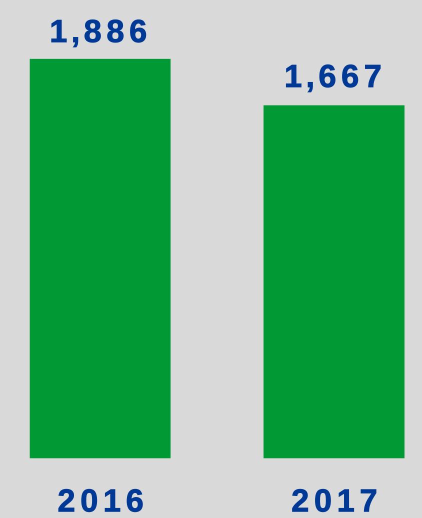
Performance Highlights Diversified, Low Risk Business Strategy

Financial Highlights – Three Months Ended September 30 (Non-GAAP)

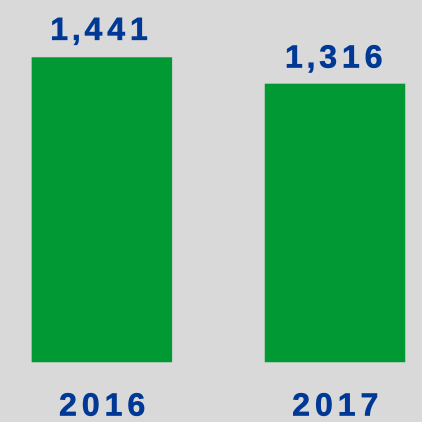
Comparable Earnings per Share*
(Dollars)



Comparable EBITDA*
($Millions)



Comparable Funds Generated from Operations*
($Millions)



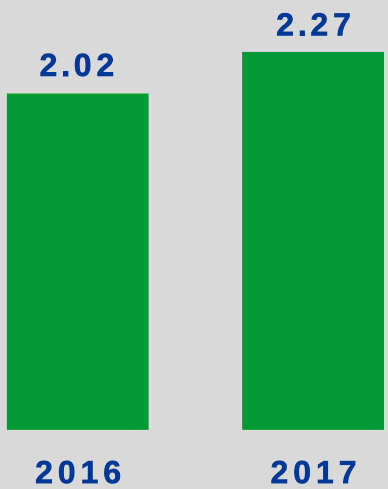
2016 Results Included U.S. Northeast Power Assets
Sold in First Half of 2017 to Permanently Fund Columbia Acquisition

**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.*

Financial Highlights – Nine Months Ended September 30 (Non-GAAP)

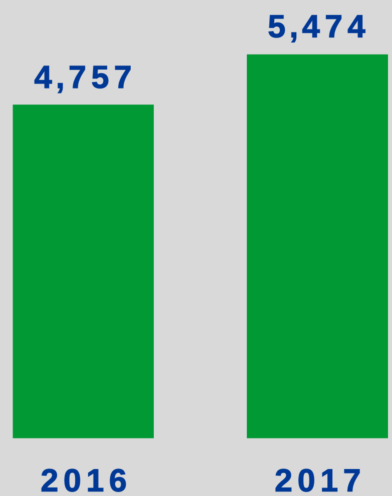
Comparable Earnings per Share*
(Dollars)

12% Increase



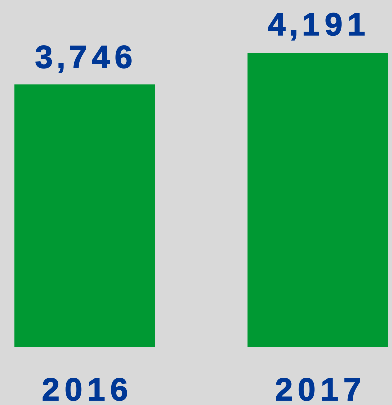
Comparable EBITDA*
($Millions)

15% Increase



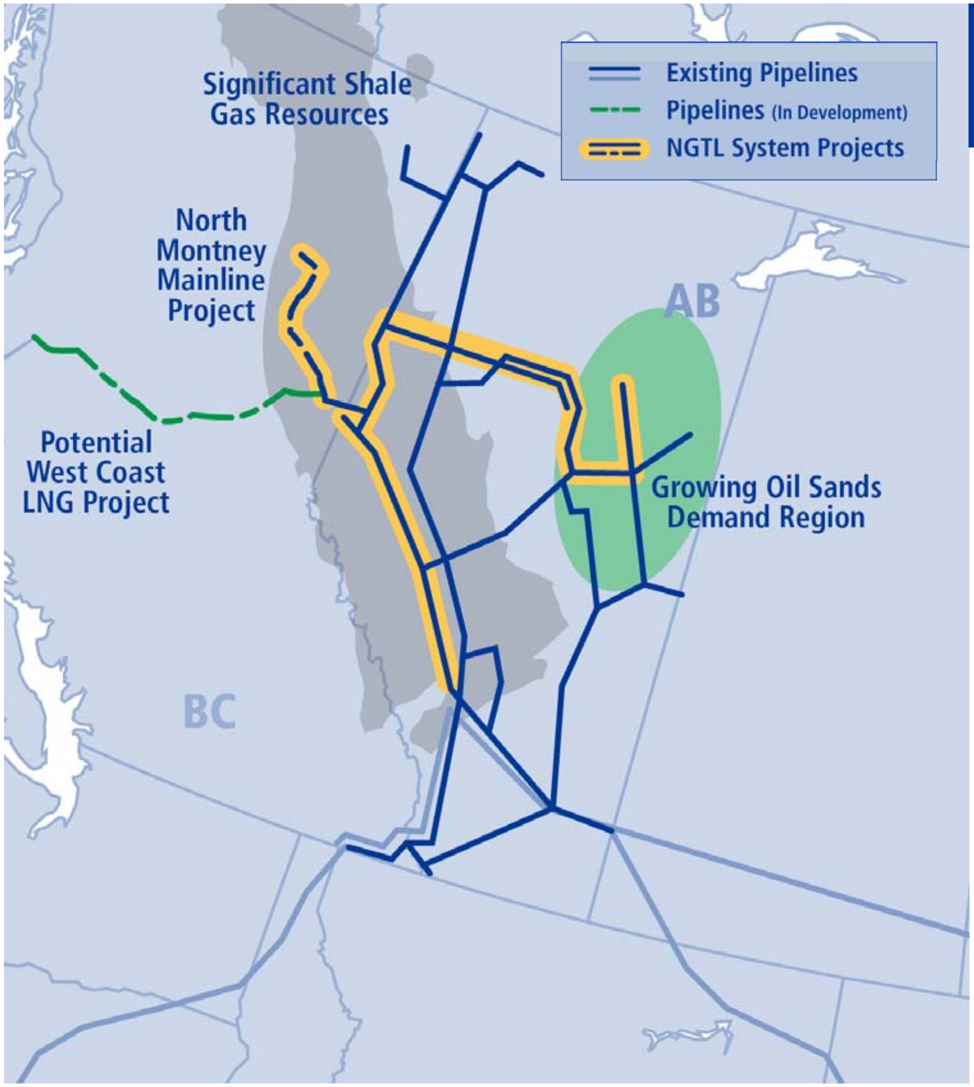
Comparable Funds Generated from Operations*
($Millions)

12% Increase



Columbia Acquisition has Contributed to Strong Year-to-date Performance

**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.*

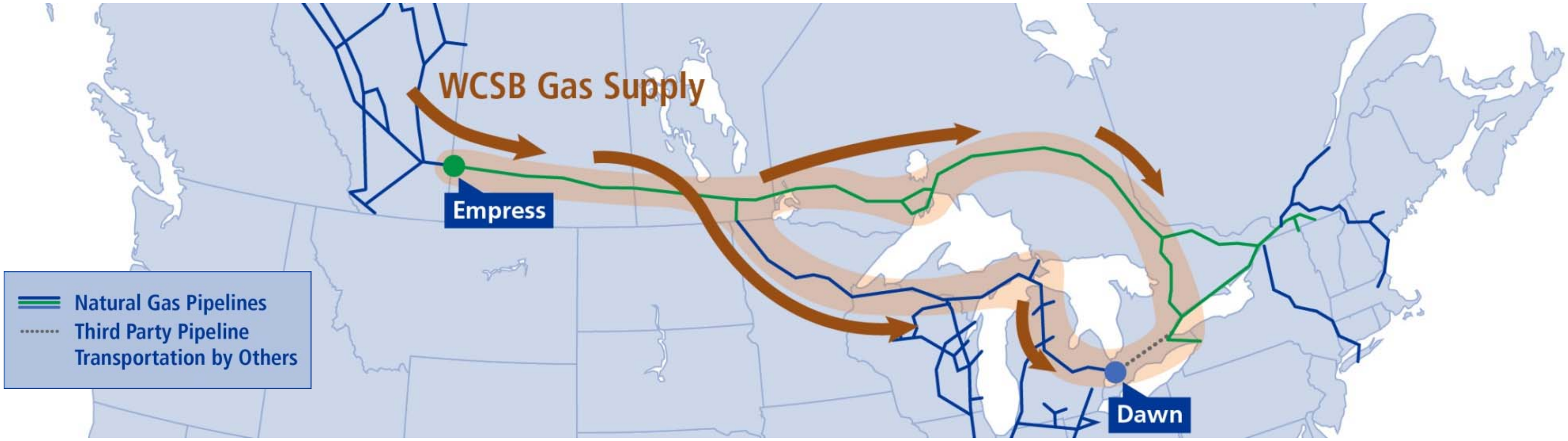


NGTL System's Unparalleled Footprint

- **Primary transporter of WCSB supply**
  - Field receipts averaging ~11.4 Bcf/d in 2017, up from ~11.2 Bcf/d in 2016
- **Advancing $7.1 billion near-term capital program**
  - $2.3 billion of new facilities entering service in 2017
  - Regulatory review for $1.4 billion North Montney project continues with oral hearing to begin the week of January 22, 2018
- **Additional investment expected to connect growing supply to local and downstream markets**
- **Well situated for West Coast LNG exports**

Uniquely Positioned to Capture Supply & Demand Growth

Canadian Mainline – Connecting North American Gas Supply to Market



- **Strong ongoing operating and financial performance**
- **Long-term fixed price (LTFP) service from Empress to Dawn hub approved by NEB**
  - Went into effect on November 1, 2017
  - 1.4 Bcf/d committed under 10-year contracts at a simplified toll of $0.77/GJ
- **Western receipts at the Alberta border and in Saskatchewan averaging 3.3 Bcf/d in November**
- **Expect to invest ~$500 million through 2019 to increase capacity from Dawn to eastern markets**

Diversified Portfolio of U.S. Natural Gas Pipelines

- **US$0.4 billion Rayne XPress and US$0.3 billion Gibraltar projects placed into service**
- **US$1.6 billion Leach XPress expected to enter service in January 2018**
- **FERC regained quorum in August 2017**
  - Expect to receive FERC certificates for WB XPress, Mountaineer XPress and Gulf XPress in fourth quarter 2017
- **Buckeye XPress and Portland XPress projects announced**

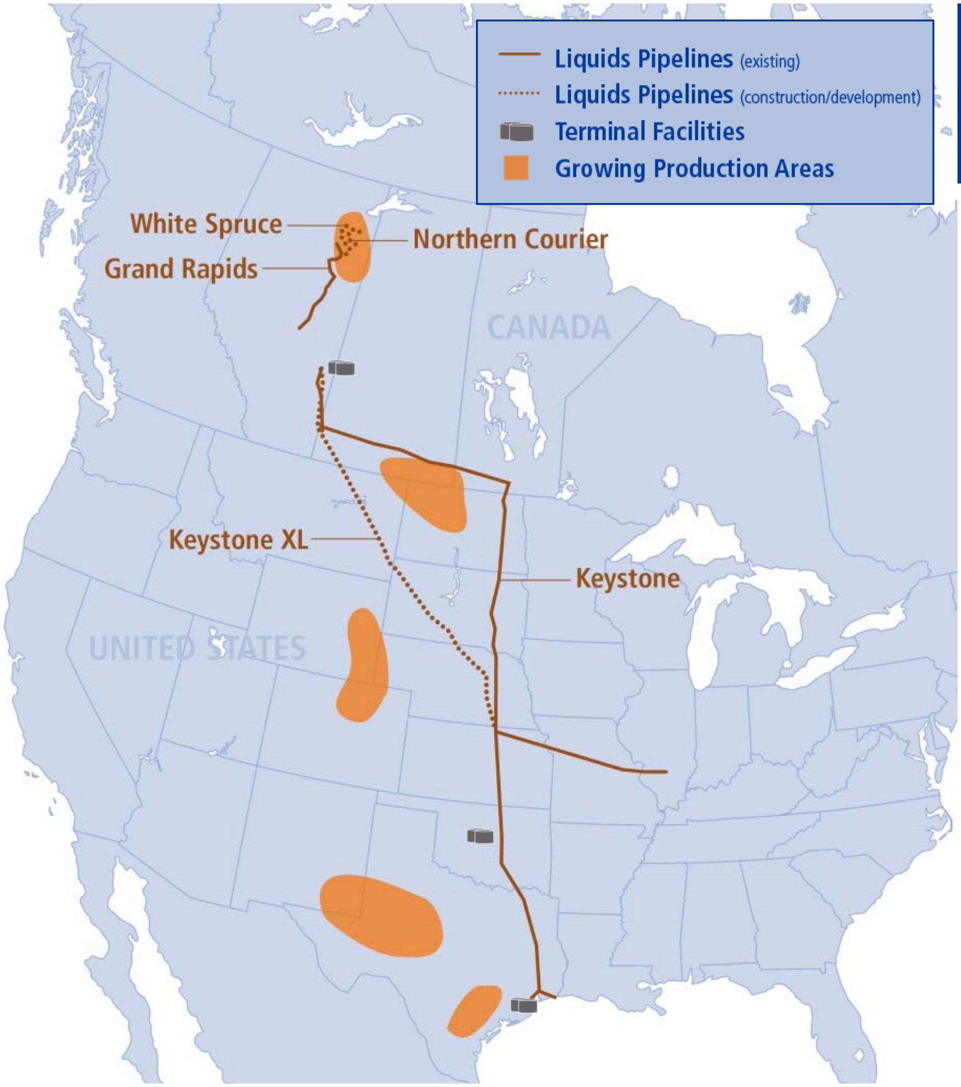
Premium Natural Gas Pipeline Network

Mexico – Solid Position and Growing

- **Three new projects expected to enter service which will increase portfolio to ~ US$5 billion**
  - Tula – US$0.6 billion
  - Villa de Reyes – US$0.6 billion
  - Sur de Texas – US$1.3 billion*
- **All underpinned by long-term contracts with the Comisión Federal de Electricidad**
- **Well positioned to connect U.S. natural gas supply to growing power generation and industrial markets in central Mexico**

Developing an Integrated Natural Gas Delivery System

** TransCanada's 60% share*



Liquids Pipelines Recent Developments

- **Keystone producing solid results**
  - Contribution from 545,000 bbl/d of long-term, long-haul contracts supplemented by higher short-term volumes
- **Advancing Alberta regional pipeline projects**
  - $900 million* Grand Rapids pipeline entered service
  - $1 billion Northern Courier project achieved commercial in-service in November 2017
- **Keystone XL**
  - Open season closed October 26, 2017
  - Nebraska Public Service Commission continues to review regulatory application with decision expected by the end of November 2017
- **Energy East and related projects terminated after careful review of changed circumstances**
  - Expect an estimated $1 billion after-tax non-cash charge will be recorded in fourth quarter 2017

**TransCanada's share*

Energy
Recent Developments

6,200 MW of capacity

- ~95% of capacity underpinned by long-term contracts with solid counterparties
- Announced sale of Ontario Solar portfolio for approximately $540 million to help fund near-term capital program

Near-term Capital Projects Progressing

- Construction of $1.1 billion Napanee facility continues; expected to be in-service in 2018
- Work continues at Bruce Power under long-term life extension agreement

Advancing $24 Billion Near-Term Capital Program

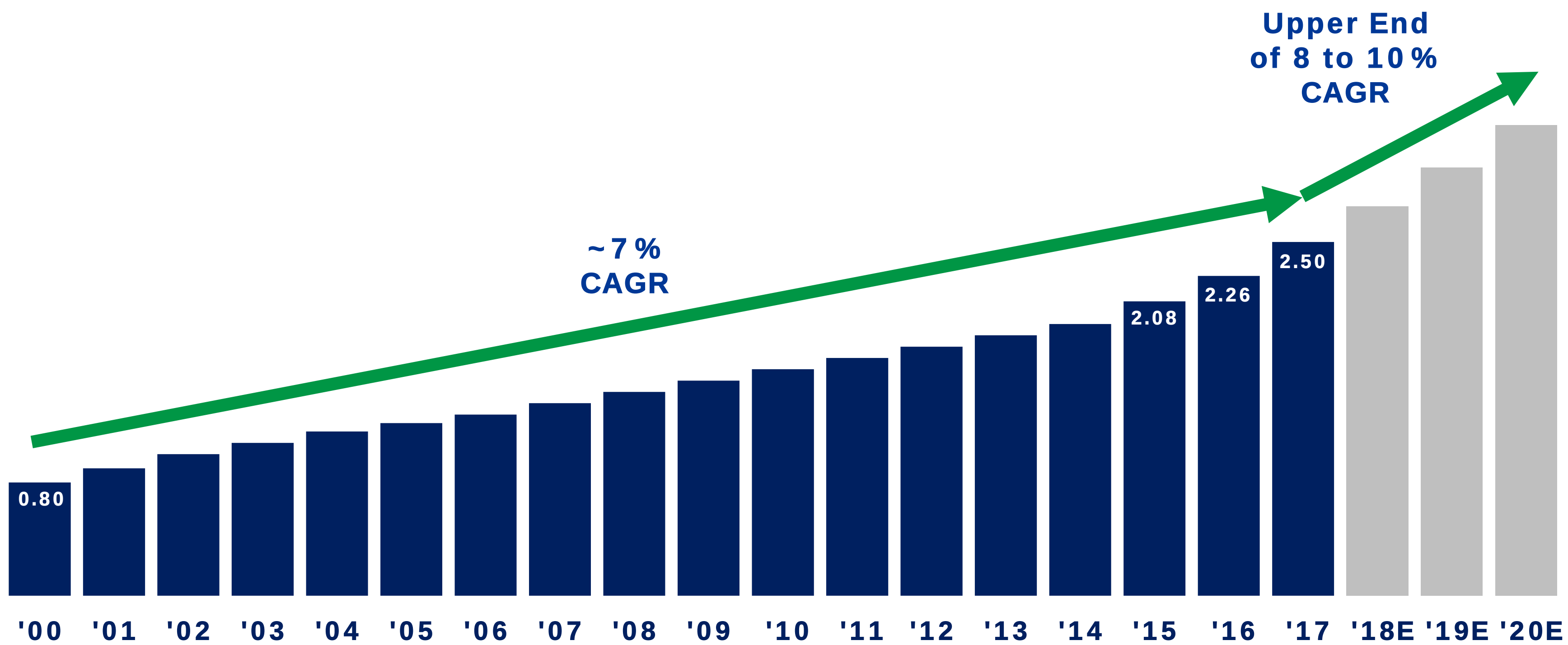
Illustrates the configuration of TransCanada's near-term projects

Project	Estimated Capital Cost*	Invested to Date	Expected In-Service Date*
Columbia	US7.9	US3.3	2017-2020
NGTL System	7.1	2.0	2017-2021+
Canadian Mainline	0.5	0.2	2017-2019
Tula	US0.6	US0.5	2018
Villa de Reyes	US0.6	US0.4	2018
Sur de Texas	US1.3	US0.7	2018
Northern Courier	1.0	1.0	2017
White Spruce	0.2	-	2018
Napanee	1.1	0.9	2018
Bruce Power Life Extension	1.0	0.2	Up to 2020+
Foreign Exchange Impact (1.25 exchange rate)	2.6	1.2	-
Total Canadian Equivalent	23.9	10.4	

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

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

Dividend History and Growth Outlook



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

Don Marchand

Executive Vice President & CFO

Consolidated Results of Operations
(unaudited) (millions of dollars, except per share amounts)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Net Income / (Loss) Attributable to Common Shares	612	(135)	2,136	482
Specific items (net of tax):				
Net loss / (gain) on sales of U.S. Northeast power assets	12	3	(243)	3
Integration and acquisition related costs - Columbia	30	67	69	206
Keystone XL asset costs	8	9	19	24
Keystone XL income tax recoveries	-	(28)	(7)	(28)
Ravenswood goodwill impairment	-	656	-	656
Alberta PPA terminations	-	-	-	176
Restructuring costs	-	-	-	10
TC Offshore loss on sale	-	-	-	3
Risk management activities	(48)	50	(3)	(50)
Comparable Earnings[1]	614	622	1,971	1,482
Net Income / (Loss) Per Common Share	$0.70	($0.17)	$2.46	$0.66
Specific items (net of tax):				
Net loss / (gain) on sales of U.S. Northeast power assets	0.01	-	(0.28)	-
Integration and acquisition related costs - Columbia	0.03	0.09	0.08	0.29
Keystone XL asset costs	0.01	0.01	0.02	0.03
Keystone XL income tax recoveries	-	(0.03)	(0.01)	(0.04)
Ravenswood goodwill impairment	-	0.82	-	0.89
Alberta PPA terminations	-	-	-	0.25
Restructuring costs	-	-	-	0.01
Risk management activities	(0.05)	0.06	-	(0.07)
Comparable Earnings Per Common Share[1]	$0.70	$0.78	$2.27	$2.02
Average Common Shares Outstanding (millions)	873	797	870	734

(1) Non-GAAP measure. For additional information on these items see the November 8, 2017 Quarterly Report to Shareholders

Business Segment Results[1]
(unaudited) (millions of dollars)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Comparable EBITDA[2]				
Canadian Natural Gas Pipelines	544	549	1,575	1,598
U.S. Natural Gas Pipelines	482	522	1,753	1,112
Mexico Natural Gas Pipelines	118	111	403	213
Liquids Pipelines	303	278	947	850
Energy	224	418	816	977
Corporate	(4)	8	(20)	7
Total	1,667	1,886	5,474	4,757

Third quarter 2017 comparable EBITDA decreased $219 million compared to same period in 2016. Principal variances included:

- **U.S. Natural Gas Pipelines**
  - Lower due to the timing of funding contributions to the Columbia Gas defined benefit pension plan
- **Mexico Natural Gas Pipelines**
  - Positively impacted by commercial in-service of Mazatlán partially offset by TransGas equity investment impairment
- **Liquids Pipelines**
  - Higher mainly due to increased volumes on the Keystone Pipeline System, higher contribution from Liquids Marketing and Grand Rapids entering service
- **Energy**
  - Lower due to monetization of U.S. Northeast power assets in second quarter 2017, partially offset by higher contribution from Bruce Power due to improved results from contracting activities

(1) For more information, see the November 8, 2017 Quarterly Report to Shareholders; (2) Non-GAAP measure. For additional information on these items see the November 8, 2017 Quarterly Report to Shareholders

Other Income Statement Items[1]
(unaudited) (millions of dollars)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Comparable EBITDA[2]	1,667	1,886	5,474	4,757
Depreciation and amortization	(506)	(527)	(1,532)	(1,425)
Comparable EBIT[2]	1,161	1,359	3,942	3,332
Interest expense[3]	(503)	(516)	(1,527)	(1,341)
Allowance for funds used during construction	145	110	367	322
Interest income and other[3]	58	12	103	63
Income tax expense[3]	(163)	(261)	(605)	(630)
Net income attributable to non-controlling interests[3]	(44)	(55)	(189)	(187)
Preferred share dividends	(40)	(27)	(120)	(77)
Comparable Earnings[2]	614	622	1,971	1,482

Principal variances between third quarter 2017 and the same period in 2016 included:

- **Allowance for funds used during construction**
  - Higher due to increased investment in natural gas pipelines under development and construction
- **Interest income and other[3]**
  - Higher due primarily to an inter-affiliate loan receivable from the Sur de Texas joint venture offsetting corresponding interest expense in Mexico Natural Gas Pipelines EBITDA
- **Income tax expense[3]**
  - Decrease primarily due to lower pre-tax earnings and changes in the proportion of income earned between Canadian and foreign jurisdictions

(1) For more information, see the November 8, 2017 Quarterly Report to Shareholders; (2) Non-GAAP measures. For additional information on these items see the November 8, 2017 Quarterly Report to Shareholders; (3) Represents amounts included in comparable earnings

Comparable Distributable Cash Flow

(unaudited) (millions of dollars, except per share amounts)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Comparable Funds Generated From Operations[2]	1,316	1,441	4,191	3,746
Dividends on preferred shares	(39)	(28)	(116)	(74)
Distributions paid to non-controlling interests	(66)	(77)	(215)	(201)
Maintenance capital expenditures including equity investments[1]	(442)	(342)	(988)	(858)
Comparable Distributable Cash Flow[2]	769	994	2,872	2,613
Per Common Share[2]	$0.88	$1.25	$3.30	$3.56
Dividends per Common Share	$0.625	$0.565	$1.875	$1.695
Coverage Ratio	1.4	2.2	1.8	2.1

(1) Maintenance capital expenditures including equity investments				
Canadian Natural Gas Pipelines	181	96	300	190
U.S. Natural Gas Pipelines	217	189	512	404
Other	44	57	176	264
Total	442	342	988	858

[2] *Non-GAAP measure. For additional information on these items see the November 8, 2017 Quarterly Report to Shareholders*

Funding Program Continued to Advance in Third Quarter

Strong, predictable and growing cash flow from operations

- Comparable funds generated from operations of $1.3 billion in the period and $4.2 billion year-to-date
- $1.4 billion of cash and cash equivalents on hand at September 30

Access to capital markets on compelling terms

- Issued $1.0 billion of medium term notes including $0.7 billion of 30-year notes at an initial rate of 4.33 per cent and $0.3 billion of 10.5-year notes at an initial rate of 3.39 per cent

Dividend Reinvestment Plan participation remains significant

- Approximately 35 per cent of dividends reinvested in common shares in quarter

At-The-Market (ATM) program, as appropriate

- To be utilized as appropriate; no common shares issued under ATM to date

Subsequent events – proceeds will help fund capital program

- Reimbursed for approximately $600 million of development and carrying costs incurred on Prince Rupert Gas Transmission project
- Agreed to sell Ontario Solar portfolio for approximately $540 million

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

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

4.0% yield
8-10% expected CAGR through 2020

Strong Financial Position

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

Performance Highlights Diversified, Low Risk Business Strategy

Question & Answer Period


Russ Girling


Don Marchand


Karl Johannson


Stan Chapman


Paul Miller


Glenn Menuz


David Moneta

Appendix – Reconciliation of Non-GAAP Measures (millions of dollars)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Comparable EBITDA[1]	1,667	1,886	5,474	4,757
Depreciation and amortization	(506)	(527)	(1,532)	(1,425)
Comparable EBIT[1]	1,161	1,359	3,942	3,332
Specific items:				
Net (loss) / gain on sales of U.S. Northeast power assets	(12)	(5)	469	(5)
Integration and acquisition related costs - Columbia	(32)	(96)	(91)	(132)
Keystone XL asset costs	(10)	(14)	(23)	(37)
Foreign exchange gain / (loss) - inter-affiliate loan	7	-	(1)	-
Ravenswood goodwill impairment	-	(1,085)	-	(1,085)
Alberta PPA terminations	-	-	-	(240)
Restructuring costs	-	-	-	(14)
TC Offshore loss on sale	-	-	-	(4)
Risk management activities	45	(81)	(102)	22
Segmented Earnings	1,159	78	4,194	1,837

(1) Comparable EBITDA and Comparable EBIT 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, except per share amounts)

	Three months ended September 30		Nine months ended September 30	
	2017	2016	2017	2016
Net Cash Provided by Operations	1,185	1,265	3,840	3,494
Increase / (decrease) in operating working capital	86	58	224	(28)
Funds Generated From Operations[1]	1,271	1,323	4,064	3,466
Specific items:				
Integration and acquisition related costs - Columbia	32	99	84	238
Keystone XL asset costs	10	14	23	37
U.S. Northeast power disposition costs	3	5	20	5
Comparable Funds Generated From Operations[1]	1,316	1,441	4,191	3,746
Dividends on preferred shares	(39)	(28)	(116)	(74)
Distributions paid to non-controlling interests	(66)	(77)	(215)	(201)
Maintenance capital expenditures including equity investments	(442)	(342)	(988)	(858)
Comparable Distributable Cash Flow[1]	769	994	2,872	2,613
Per Common Share[1]	$ 0.88	$ 1.25	$ 3.30	$ 3.56

(1) Funds Generated from Operations, Comparable Funds Generated from Operations, Comparable Distributable Cash Flow and Comparable Distributable Cash Flow per Common Share are non-GAAP measures. See the non-GAAP measures slide at the front of this presentation for more information.

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