Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM F-10

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

TRANSCANADA CORPORATION

(Exact name of Registrant as specified in its charter)

Canada

(Province or other jurisdiction of incorporation or organization) 4922; 4923; 4924; 5172

(Primary Standard Industrial Classification Code Number) Not Applicable

(I.R.S. Employer Identification Number)

TransCanada Tower, 450 First Street S.W., Calgary, Alberta, Canada, T2P 5H1, (403) 920-2000 (Address and telephone number of Registrant's principal executive offices)

TransCanada PipeLine USA Ltd., 717 Texas St., Houston, Texas 77002-2761, (832) 320-5201 (Name, address, and telephone number of agent for service in the United States)

Copies to:

Donald R. Marchand TransCanada Corporation TransCanada Tower 450 First Street S.W. Calgary, Alberta, Canada T2P 5H1

(403) 920-2000

Michael L. Hermsen, Esq. Mayer Brown LLP 71 Š. Wacker Drive

Chicago, Illinois U.S.A., 60606 (312) 782-0600

Ross A. Bentley

Blake, Cassels & Graydon LLP 855 – 2nd Street S.W. Suite 3500, Bankers Hall East Tower Calgary, Alberta, Canada AB T2P 4J8 (403) 260-9600

Approximate date of commencement of proposed sale of the securities to the public:

As soon as practicable after this Registration Statement is declared effective.

Province of Alberta, Canada

(Principal jurisdiction regulating this offering)

It is proposed that this filing shall become effective (check appropriate box):

upon filing with the Commission, pursuant to Rule 467(a) (if in connection with an offering being made contemporaneously in the United States A. 0 and Canada).

В X at some future date (check appropriate box below):

pursuant to Rule 467(b) on (designate a time not sooner than seven calendar days after filing). 1. 0

2. 0 pursuant to Rule 467(b) on (designate a time seven calendar days or sooner after filing) because the securities regulatory authority in the review jurisdiction has issued a receipt or notification of clearance on.

pursuant to Rule 467(b) as soon as practicable after notification of the Commission by the Registrant or the Canadian securities regulatory authority 3. 0 of the review jurisdiction that a receipt or notification of clearance has been issued with respect hereto.

4. after the filing of the next amendment to this Form (if preliminary material is being filed).

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to the home jurisdiction's shelf prospectus offering procedures, check the following box:

CALCULATION OF REGISTRATION FEE

Proposed maximum Proposed maximum Title of each class of Amount to offering price aggregate Amount of offering price securities to be registered be registered (1) per Security registration fee (2)

Common Shares (3)

| First Preferred Shares | | | | |
|-------------------------|---------|------|---------|------------|
| Second Preferred Shares | | | | |
| Subscription Receipts | | | | |
| Total | U.S.\$0 | 100% | U.S.\$0 | U.S.\$0.00 |

- (1) In U.S. dollars or the equivalent thereof in foreign denominated currencies or currency units.
- Pursuant to Rule 429 under the Securities Act of 1933, the prospectus contained herein relates to an aggregate of U.S.\$2,008,637,140 common shares, first preferred shares, second preferred shares and subscription receipts, consisting of U.S.\$0 being registered hereby and U.S.\$1,663,212,246 unsold common shares, first preferred shares, second preferred shares and subscriptions receipts that were previously registered under the Registrant's Registration Statement on Form F-10 (File No. 333-161929) initially filed on September 15, 2009 and U.S.\$345,424,894 unsold common shares, first preferred shares, second preferred shares and subscriptions receipts that were previously registered under the Registrant's Registration Statement on Form F-10 (File No. 333-151781) initially filed on June 19, 2008.
- (3) Includes associated common share purchase rights. The value, if any, attributable to the rights is reflected in the market price of the common shares.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registration Statement shall become effective as provided in Rule 467 under the Securities Act of 1933, as amended, or on such date as the Commission, acting pursuant to Section 8(a) of the Act, may determine.

PART I

INFORMATION REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

Base Shelf Prospectus

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the United States Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.



TRANSCANADA CORPORATION

\$2,000,000,000

Common Shares
First Preferred Shares
Second Preferred Shares
Subscription Receipts

TransCanada Corporation ("TCC" or the "Corporation") may from time to time offer common shares ("Common Shares"), first preferred shares ("First Preferred Shares"), second preferred shares ("Second Preferred Shares" and, together with the First Preferred Shares, the "Preferred Shares") and subscription receipts ("Subscription Receipts") (collectively, Common Shares, Preferred Shares and Subscription Receipts are referred to herein as the "Securities") having an aggregate offering price of up to \$2,000,000,000 (or the equivalent in U.S. dollars or other currencies) during the 25 month period that this short form base shelf prospectus, including any amendments hereto, remains valid.

The specific terms of any offering of Securities will be set forth in one or more shelf prospectus supplements (each, a "Prospectus Supplement") including, where applicable: (i) in the case of Common Shares, the number of shares offered and the offering price (or the manner of determination thereof if offered on a non-fixed price basis); (ii) in the case of Preferred Shares, the designation of the particular series, the number of shares offered, the offering price (or the manner of determination thereof if offered on a non-fixed price basis), any voting rights, any rights to receive dividends, any terms of redemption, any conversion or exchange rights and any other specific terms; and (iii) in the case of Subscription Receipts, the offering price (or the manner of determination thereof if offered on a non-fixed price basis), the procedures for the exchange of the Subscription Receipts for Common Shares or Preferred Shares, as the case may be, and any other specific terms. A Prospectus Supplement may include other terms pertaining to the Securities that are not prohibited by the parameters set forth in this prospectus.

All shelf information permitted under applicable laws to be omitted from this prospectus will be contained in one or more Prospectus Supplements that will be delivered to purchasers together with this prospectus. Each Prospectus Supplement will be incorporated by reference into this prospectus for the purposes of securities legislation as of the date of the Prospectus Supplement and only for the purposes of the distribution of the Securities to which the Prospectus Supplement pertains.

The issued and outstanding Common Shares are listed on the Toronto Stock Exchange ("TSX") and the New York Stock Exchange ("NYSE") under the symbol "TRP". The issued and outstanding First Preferred Shares, series 1 ("Series 1 Shares"), the First Preferred Shares, series 3 ("Series 3 Shares"), the First Preferred Shares, series 5 ("Series 5 Shares") and the First Preferred Shares, Series 7 ("Series 7 Shares") of TCC are listed for trading on the TSX under the symbols "TRP.Pr.A", "TRP.Pr.B", "TRP.Pr.C" and "TRP.Pr.D", respectively. There is no market through which the Preferred Shares or Subscription Receipts which may be offered under this prospectus may be sold and purchasers may not be able to resell any Preferred Shares or Subscription Receipts purchased under this prospectus. This may affect the pricing of the securities in the secondary market, the transparency and availability of trading prices, the liquidity of the securities, and the extent of issuer regulation. See "Risk Factors" as well as the "Risk Factors" section of the applicable Prospectus Supplement.

The Corporation may sell the Securities to or through underwriters purchasing as principals and may also sell the Securities to one or more purchasers directly or through agents. See "Plan of Distribution". The Prospectus Supplement relating to a particular offering of Securities will identify each underwriter or agent, as the case may be, engaged by TCC in connection with the offering and sale of Securities, and will set forth the terms of the offering of such Securities, including the method of distribution of such Securities, the public offering price, the proceeds to TCC, any fees, discounts or other compensation payable to underwriters or agents, and any other material terms of the plan of distribution. Securities may be sold from time to time in one or more transactions at a fixed price or fixed prices, or at non-fixed prices. If offered on a non-fixed price basis, Securities may be offered at market prices prevailing at the time of sale or at prices to be negotiated with purchasers at the time of sale, which prices may vary as between purchasers and during the period of distribution. If Securities are offered on a non-fixed price basis, the underwriters' compensation will be increased or decreased by the amount by which the aggregate price paid for Securities by the purchasers exceeds or is less than the gross proceeds paid by the underwriters to TCC. See "Plan of Distribution".

In connection with any offering of Securities, the underwriters or agents may over-allot or effect transactions which stabilize, maintain or otherwise affect the market price of the Securities at a level above that which otherwise might prevail on the open market. Such transactions may be commenced, interrupted or discontinued at any time. See "Plan of Distribution".

TCC's head and registered office is located at 450 - 1st Street S.W., Calgary, Alberta, Canada, T2P 5H1.

We are permitted, as a Canadian issuer, under the multi-jurisdictional disclosure system adopted by the United States ("U.S."), to prepare this prospectus in accordance with Canadian disclosure requirements. You should be aware that such requirements are different from those of the U.S.

Financial statements incorporated herein for periods beginning on or after January 1, 2012, have been prepared in accordance with U.S. generally accepted accounting principles, which is referred to as "U.S. GAAP". Comparative figures incorporated herein for periods prior to January 1, 2012, which were previously presented in accordance with generally accepted accounting principles in Canada, have been adjusted as necessary to be compliant with TCC's accounting policies under U.S. GAAP.

You should be aware that the acquisition of the Securities described herein may have tax consequences both in the U.S. and in Canada. Such tax consequences for investors who are residents in, or citizens of, the U.S. may not be described fully herein or in any applicable Prospectus Supplement. You should read the tax discussion in any applicable Prospectus Supplement, however, this prospectus or any applicable Prospectus Supplement may not fully describe these tax consequences.

Your ability to enforce civil liabilities under U.S. federal securities laws may be affected adversely by the fact that we are incorporated under the laws of Canada, that some or all of our officers and directors may be residents of Canada, that some or all of the experts named in the registration statement may be residents of Canada and that all or a substantial portion of our assets and said persons are located outside the U.S.

Paula R. Reynolds, John Richels, Mary Pat Salomone and W. Thomas Stephens are directors of the Corporation who reside outside of Canada and each of these directors has appointed the Corporation as agent for service of process at 450 - 1st Street, S.W., Calgary, AB T2P 5H1. Purchasers are advised that it may not be possible for investors to enforce judgments obtained in Canada against any person who resides outside of Canada, even if the party has appointed an agent for service of process.

These Securities have not been approved or disapproved by the United States Securities and Exchange Commission (the "SEC") or any state securities commission nor has the SEC or any state securities commission passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offence.

The date of this prospectus is

TABLE OF CONTENTS

| | Page |
|---|------|
| FORWARD-LOOKING INFORMATION | 4 |
| DOCUMENTS INCORPORATED BY REFERENCE | 6 |
| ABOUT THIS PROSPECTUS | 7 |
| WHERE TO FIND MORE INFORMATION | 8 |
| THE CORPORATION | 8 |
| CONSOLIDATED CAPITALIZATION | 9 |
| USE OF PROCEEDS | 9 |
| EARNINGS COVERAGE | 9 |
| DESCRIPTION OF THE SECURITIES BEING DISTRIBUTED | 10 |
| PLAN OF DISTRIBUTION | 12 |
| PRIOR SALES | 13 |
| TRADING PRICE AND VOLUME | 14 |
| ENFORCEABILITY OF CIVIL LIABILITIES | 15 |
| CERTAIN INCOME TAX CONSIDERATIONS | 15 |
| RISK FACTORS | 15 |
| LEGAL MATTERS | 16 |
| EXPERTS | 16 |
| INTEREST OF EXPERTS | 16 |
| DOCUMENTS FILED AS PART OF THE REGISTRATION STATEMENT | 16 |
| | |

FORWARD-LOOKING INFORMATION

This prospectus and the documents incorporated by reference in this prospectus include "forward-looking information" and "forward-looking statements" (collectively, "forward-looking information") within the meaning of securities laws, including the "safe harbour" provisions of the *Securities Act* (Ontario), the *Securities Act* (Alberta), the *United States Private Securities Litigation Reform Act of 1995*, Section 21E of the *United States Securities Exchange Act* of 1934, as amended (the "*Exchange Act*"), and Section 27A of the *United States Securities Act of 1933*, as amended (the "*Securities Act*"). The words "anticipate", "expect", "believe", "may", "will", "should", "estimate", "project", "outlook", "forecast", "intend", "target", "plan" or similar words are used to identify such forward-looking information. Forward-looking information in this prospectus and in the documents incorporated by reference herein is intended to provide you with information regarding us, including management's assessment of our future plans and financial outlook. Forward-looking information in this prospectus includes statements under the headings "Use of Proceeds" and "Plan of Distribution". Forward-looking information in this prospectus and the documents incorporated by reference herein may include, but is not limited to, statements regarding:

- anticipated business prospects;
- our financial and operational performance, including the performance of our subsidiaries;
- expectations or projections about strategies and goals for growth and expansion;
- expected cash flows and future financing options available to us;
- expected costs for planned projects, including projects under construction and in development;
- expected schedules for planned projects (including anticipated construction and completion dates);
- expected regulatory processes and outcomes;
- expected impact of regulatory outcomes;
- expected outcomes with respect to legal proceedings, including arbitration;
- expected capital expenditures and contractual obligations;
- expected operating and financial results;
- the expected impact of future commitments and contingent liabilities; and
- expected industry, market and economic conditions.

This forward-looking information reflects our beliefs and assumptions based on information available at the time the information was stated and, as such, is not a guarantee of future performance. By its nature, forward-looking information is subject to various assumptions, risks and uncertainties which could cause our actual results and achievements to differ materially from the anticipated results or expectations expressed or implied in such information.

Key assumptions on which our forward-looking information is based include, but are not limited to, assumptions about:

- 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; and
- acquisitions and divestitures.

The risks and uncertainties that could cause actual results or events to differ materially from current expectations include, but are not limited to:

- our ability to successfully implement our strategic initiatives;
- whether our strategic initiatives 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 we receive from our energy business;
- regulatory decisions and outcomes;
- outcomes of legal proceedings, including arbitration;
- performance of our counterparties;
- 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;
- labour, equipment and material costs;
- access to capital markets;
- interest and foreign exchange rates;
- weather;
- · cybersecurity;
- · technological developments; and
- economic conditions in North America as well as globally.

Additional information on these and other factors is discussed in this prospectus and the documents incorporated by reference herein including in the 2012 MD&A (as defined herein) under the headings "Natural Gas Pipelines — Business Risks", "Oil Pipelines — Business Risks", "Energy — Business Risks" and "Other Information — Risks and Risk Management", as may be modified or superseded by documents incorporated or deemed to be incorporated by reference in this prospectus.

Readers are cautioned against placing undue reliance on forward-looking information, which is given as of the date it is expressed in this prospectus or otherwise, and not to use future-oriented information or financial outlooks for anything other than their intended purpose. We undertake no obligation to publicly update or revise any forward-looking information in this prospectus or otherwise, whether as a result of new information, future events or otherwise, except as required by law.

DOCUMENTS INCORPORATED BY REFERENCE

Information has been incorporated by reference in this prospectus from documents filed with the securities commissions or similar authorities in Canada and with the SEC in the U.S.

The following documents which were filed by us with the securities commissions or similar authorities in each of the provinces and territories of Canada and the SEC are incorporated by reference in this prospectus:

- (a) audited comparative consolidated financial statements as at December 31, 2012 and 2011 and for each of the years in the three-year period ended December 31, 2012, the notes thereto, and the auditors' report thereon;
- (b) management's discussion and analysis of financial condition and results of operations as at and for the year ended December 31, 2012 (the "2012 MD&A");
- (c) annual information form for the year ended December 31, 2012 dated February 11, 2013 (the "Annual Information Form");
- (d) management proxy circular dated February 11, 2013 for the 2013 annual meeting of shareholders held April 26, 2013;
- (e) unaudited interim comparative consolidated financial statements as at September 30, 2013 and for the three and nine-month periods ended September 30, 2013 and 2012, and the notes thereto; and
- (f) management's discussion and analysis of financial condition and results of operations as at and for the three and nine-month periods ended September 30, 2013.

Any documents of the type referred to above, including all annual information forms, all information circulars, all annual and interim financial statements and management's discussion and analysis relating thereto, all material change reports (excluding confidential material change reports), press releases containing financial information for financial periods more recent than the most recent annual or interim financial statements, and any business acquisition reports, as well as all Prospectus Supplements disclosing additional or updated information subsequently filed by us with securities regulatory authorities in Canada after the date of this prospectus and prior to the date on which this prospectus ceases to be effective shall be deemed to be incorporated by reference into this prospectus. These documents will be available through the internet on the System for Electronic Document Analysis and Retrieval ("SEDAR"), which can be accessed at www.sedar.com. In addition, any similar documents filed by us with the SEC in our periodic reports on Form 6-K or annual reports on Form 40-F, and any other documents filed with or furnished to the SEC pursuant to Section 13(a), 13(c) or 15(d) of the *Exchange Act*, in each case after the date of this prospectus, shall be deemed to be incorporated by reference into the registration statement of which this prospectus forms a part, if and to the extent expressly provided in such reports. Our periodic reports on Form 6-K and our annual reports on Form 40-F are available on the SEC's Electronic Data Gathering and Retrieval ("EDGAR") system web site at www.sec.gov.

Any statement contained in this prospectus or in a document incorporated, or deemed to be incorporated, by reference herein shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained in this prospectus or in any subsequently filed document that also is, or is deemed to be, incorporated by reference herein modifies or supersedes such statement. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document that it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purpose that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the

circumstances in which it was made. Any statement so modified or superseded shall not constitute a part of this prospectus, except as so modified or superseded.

Upon a new annual information form and related annual audited comparative consolidated financial statements and accompanying management's discussion and analysis being filed by us with the applicable securities regulatory authorities during the term of this prospectus, the previous annual information form, the previous annual audited comparative consolidated financial statements and accompanying management's discussion and analysis, all material change reports and all business acquisition reports filed by us prior to the commencement of the financial year of the Corporation in which the new annual information form and the related annual audited comparative consolidated financial statements and accompanying management's discussion and analysis are filed shall be deemed no longer to be incorporated by reference into this prospectus for purposes of future offers and sales of Securities hereunder. Upon interim comparative consolidated financial statements and the accompanying management's discussion and analysis being filed by us with the applicable securities regulatory authorities during the term of this prospectus, all interim comparative consolidated financial statements and accompanying management's discussion and analysis filed prior to the filing of the new interim comparative consolidated financial statements shall be deemed no longer to be incorporated by reference into this prospectus for purposes of future offers and sales of Securities hereunder.

Any "template version" of any "marketing materials" (as such terms are defined under applicable Canadian securities laws) pertaining to a distribution of Securities will be filed on SEDAR. In the event that such "marketing materials" are filed subsequent to the date of the filing of the applicable Prospectus Supplement(s) pertaining to the distribution of the Securities that such "marketing materials" relate to and prior to the termination of such distribution, such filed versions of the "marketing materials" will be deemed to be incorporated by reference into the applicable Prospectus Supplement(s) for the purposes of the distribution of the Securities to which the Prospectus Supplement(s) pertain.

We will provide without charge to each person to whom this prospectus is delivered, including any beneficial owner, upon written or oral request of such person, a copy of any or all of the documents incorporated herein by reference (other than exhibits to such documents, unless such exhibits are specifically incorporated by reference in such documents). Requests should be directed to TransCanada Corporation, 450 - 1st Street S.W., Calgary, Alberta, Canada, T2P 5H1, Attention: Corporate Secretary, telephone number (403) 920-2000.

You should rely only on the information contained in or incorporated by reference in this prospectus or any applicable Prospectus Supplement and on the other information included in the registration statement of which this prospectus forms a part. We have not authorized anyone to provide you with different or additional information. We are not making an offer of these Securities in any jurisdiction where the offer is not permitted by law. You should not assume that the information contained in or incorporated by reference in this prospectus or any applicable Prospectus Supplement is accurate as of any date other than the date on the front of the applicable Prospectus Supplement.

ABOUT THIS PROSPECTUS

In this prospectus and in any Prospectus Supplement, unless otherwise specified or the context otherwise requires, all dollar amounts are expressed in Canadian dollars. References to "dollars" or "\$" are to lawful currency of Canada, and references to "U.S. dollars" or "U.S.\$" are to lawful currency of the U.S.

Unless otherwise indicated, all financial information included and incorporated by reference in this prospectus has been prepared in accordance with U.S. GAAP.

One or more Prospectus Supplements containing the specific variable terms of an offering of Securities will be delivered to purchasers of such Securities together with this prospectus and will be deemed to be incorporated by reference into this prospectus as of the date of such Prospectus Supplement solely for the purposes of the offering of the Securities offered thereunder.

Except on the cover page and under "Description of the Securities Being Distributed", and unless the context otherwise requires, all references in this prospectus and any Prospectus Supplement to "we", "us", "our", "TCC" or the "Corporation" mean TransCanada Corporation and its subsidiaries, partnership interests and joint venture investments.

WHERE TO FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form F-10 relating to the Securities. This prospectus, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement, certain items of which are contained in the exhibits to the registration statement as permitted by the rules and regulations of the SEC. Statements included or incorporated by reference in this prospectus about the contents of any contract, agreement or other documents referred to are not necessarily complete, and in each instance, you should refer to the exhibits for a complete description of the matter involved. Each time we sell Securities under the registration statement, we will provide a Prospectus Supplement that will contain specific information about the terms of that offering. The Prospectus Supplement may also add, update or change information contained in this prospectus.

We file annual and quarterly financial information and material change reports, business acquisition reports and other material with the securities commission or similar regulatory authority in each of the provinces and territories of Canada and with the SEC. Under the multi-jurisdictional disclosure system adopted by the U.S., documents and other information that we file with the SEC may be prepared in accordance with the disclosure requirements of Canada, which are different from those of the U.S. You may read and download any public document that TCC has filed with the securities commission or similar regulatory authority in each of the provinces and territories of Canada on SEDAR at www.sedar.com. You may read and copy any document TCC has filed with the SEC at the SEC's public reference room in Washington D.C. and may also obtain copies of those documents from the public reference room of the SEC at 100 F Street, N.E., Washington, D.C. 20549 by paying a fee. Additionally, you may read and download some of the documents that we have filed on EDGAR at www.sec.gov. Reports and other information about us may also be inspected at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

THE CORPORATION

TCC was incorporated pursuant to the provisions of the *Canada Business Corporations Act* on February 25, 2003 in connection with a plan of arrangement which established TCC as the parent company of TransCanada PipeLines Limited ("TCPL"). All of the outstanding common shares of TCPL are owned by TCC.

We operate our business in three segments: Natural Gas Pipelines, Oil Pipelines and Energy. Natural Gas Pipelines and Oil Pipelines are principally comprised of our respective natural gas and oil pipelines in Canada, the U.S. and Mexico as well as our regulated natural gas storage operations in the U.S. Energy includes our power operations and the non-regulated natural gas storage business in Canada.

Our principal subsidiaries as of December 31, 2012 are indicated in the diagram under the heading "TransCanada Corporation — Intercorporate Relationships" in the Annual Information Form.

CONSOLIDATED CAPITALIZATION

Other than the issuance by TransCanada PipeLines Limited ("TCPL"), a wholly-owned subsidiary of the Corporation, of U.S. \$625 million principal amount of 3.750% senior notes due 2023 and U.S. \$625 million principal amount of 5.000% senior notes due 2043, on October 7, 2013 (the "October 2013 Notes") there have been no material changes in the share and loan capital of the Corporation, on a consolidated basis, since September 30, 2013. TCPL redeemed all of its four million outstanding 5.60% cumulative redeemable first preferred shares series U ("Series U Shares") with a total face value of \$200 million on October 15, 2013 (the "October 2013 Redemption").

USE OF PROCEEDS

Unless otherwise indicated in a Prospectus Supplement relating to a particular offering of Securities, we intend to use the net proceeds from the sale of Securities to reduce or repay indebtedness and/or to, directly or indirectly, finance our long-term investment program. Specific information about the use of net proceeds will be set forth in the applicable Prospectus Supplement. We may invest funds which we do not immediately require in short-term marketable investment grade securities. We may, from time to time, issue securities (including debt securities) other than pursuant to this prospectus.

EARNINGS COVERAGE

The following financial ratios have been calculated on a consolidated basis for the respective 12-month periods ended December 31, 2012 and September 30, 2013 and are based on audited financial information in the case of the 12-month period ended December 31, 2012 and unaudited financial information in the case of the 12-month period ended September 30, 2013. The following financial ratios give pro forma effect to: (i) the October 2013 Redemption; and (ii) to the issuance of the October 2013 Notes. The financial ratios for the 12-month period ended December 31, 2012 also give pro forma effect to the issuance of the Series 7 Shares on March 4, 2013 and the issuance by TCPL of: (i) \$300 million principal amount of 4.55% medium term notes due 2041 and \$450 million principal amount of 3.69% medium term notes due 2023 on July 19, 2013 (collectively, the "July 2013 MTNs"); (ii) U.S. \$500 million principal amount of floating rate senior notes due 2016 (the "Floating Rate Notes") on July 3, 2013 (assuming a constant rate of interest for the notes for the applicable periods based on the rate of interest applicable to such notes on the date hereof); and (iii) U.S. \$750 million principal amount of 0.750% senior notes on January 15, 2013 (the "January 2013 Notes"). The following ratios do not give effect to the issue of any Securities pursuant to this prospectus. Adjustments for normal course issuances and repayments of long-term debt subsequent to September 30, 2013 and December 31, 2012, as applicable, would not materially affect the ratios and, as a result, have not been made.

| | December 31, 2012 | September 30, 2013 |
|---|----------------------|-----------------------|
| Earnings coverage on long-term debt and current liabilities | 2.1 times | 2.4 times |
| Earnings coverage on long-term debt, current liabilities and first preferred shares | 1.9 times(1) | 2.2 times(1) |

(1) Gives effect to the dividends declared on the Corporation's outstanding Series 1 Shares, Series 3 Shares, Series 5 Shares and Series 7 Shares and TCPL's outstanding first preferred shares (series Y), in the aggregate amount of \$119.6 million for the twelve-months ended December 31, 2012 and in the aggregate amount of \$114.8 million for the twelve-months ended September 30, 2013. All of TCPL's Series U Shares were redeemed on October 15, 2013.

The Corporation's dividend requirements on all of its issued and outstanding Preferred Shares and TCPL's outstanding first preferred shares (series Y) for: (i) the 12-month period ended December 31, 2012 after giving pro forma effect to the October 2013 Redemption and the issuance of the Series 7

Shares and adjusted to a before-tax equivalent using an effective income tax rate of 25.6%, amounted to approximately \$119.6 million; and (ii) for the 12-month period ended September 30, 2013 after giving pro forma effect to the October 2013 Redemption and adjusted to a before-tax equivalent using an effective income tax rate of 23.6% amounted to approximately \$114.8 million. The Corporation's interest requirements for: (i) the 12-months ended December 31, 2012 after giving pro forma effect to the issuances of the October 2013 Notes, the July 2013 MTNs, the Floating Rate Notes (assuming a constant rate of interest for the Floating Rate Notes for the applicable periods based on the rate of interest applicable to such Floating Rate Notes on the date hereof) and the January 2013 Notes amounted to approximately \$1.327 billion; and (ii) for the 12-months ended September 30, 2013 after giving pro forma effect to the issuances the October 2013 Notes amounted to approximately \$1.311 billion. The Corporation's earnings before interest expense and income tax for the 12-month period ended December 31, 2012 were approximately \$2.802 billion, which is 1.9 times the Corporation's aggregate pro forma dividend and interest requirements for this period. The Corporation's earnings before interest expense and income tax for the 12-month period ended September 30, 2013 were approximately \$3.204 billion, which is 2.2 times the Corporation's aggregate pro forma dividend and interest requirements for this period.

DESCRIPTION OF THE SECURITIES BEING DISTRIBUTED

We are authorized to issue an unlimited number of Common Shares, of which approximately 707 million were issued and outstanding as of November 25, 2013; an unlimited number of First Preferred Shares, issuable in series, of which 22 million Series 1 Shares, 14 million Series 3 Shares, 14 million Series 5 Shares and 24 million Series 7 Shares were outstanding as of November 25, 2013; and an unlimited number of Second Preferred Shares, issuable in series, of which none were outstanding as of November 25, 2013. No Subscription Receipts were issued and outstanding as of November 25, 2013.

The following description of each of the Common Shares, First Preferred Shares, Second Preferred Shares and Subscription Receipts is a summary of certain of their material attributes and characteristics which does not purport to be complete. The terms and conditions set forth in this section will apply, as applicable, to each Common Share, First Preferred Share, Second Preferred Share and Subscription Receipt unless otherwise specified in the applicable Prospectus Supplement.

Common Shares

The Common Shares entitle the holders thereof to one vote per share at all meetings of shareholders, except meetings at which only holders of another specified class of shares are entitled to vote, and, subject to the rights, privileges, restrictions and conditions attaching to the Preferred Shares, whether as a class or a series, and to any other class or series of shares of TCC which rank prior to the Common Shares, entitle the holders thereof to receive: (i) dividends if, as and when declared by the board of directors of TCC out of the assets of TCC properly applicable to the payment of the dividends in such amount and payable at such times and at such place or places as the board of directors of TCC may from time to time determine; and (ii) the remaining property of TCC upon a dissolution.

The Corporation has a shareholders' rights plan (the "Rights Plan") that is designed to encourage the fair treatment of shareholders in connection with any takeover bid for the Corporation. Rights issued under the Rights Plan become exercisable when a person (subject to certain exceptions), and any related parties, acquires or announces the intention to acquire 20% or more of the Corporation's outstanding Common Shares without complying with certain provisions set out in the Rights Plan or without approval of the board of directors of the Corporation. Should such an acquisition occur, each rights holder, other than the acquiring person and related parties, will have the right to purchase Common Shares essentially at a 50% discount to the market price at that time. For further particulars,

reference should be made to the Rights Plan, a copy of which may be obtained on request without charge from the Corporate Secretary of TCC, 450 - 1st Street S.W., Calgary, Alberta, Canada, T2P 5H1 (telephone (403) 920-2000).

First Preferred Shares

Subject to certain limitations, the board of directors of TCC may, at any time, and from time to time, issue First Preferred Shares in one or more series and determine for any such series, its designation, number of shares and respective rights, privileges, restrictions and conditions. The First Preferred Shares, as a class, have, among others, provisions to the effect set forth below.

The First Preferred Shares of each series shall rank on a parity with the First Preferred Shares of every other series, and shall be entitled to preference over the Common Shares, the Second Preferred Shares and any other shares ranking junior to the First Preferred Shares with respect to the payment of dividends, the repayment of capital and the distribution of the assets of TCC in the event of a liquidation, dissolution or winding up of TCC or any other distribution of the assets of the Corporation among its shareholders for the purpose of winding-up its affairs, and may also be given such other preferences not inconsistent with the provisions of the Articles of TCC.

Except as provided by the *Canada Business Corporations Act* or as referred to below, the holders of the First Preferred Shares will not have any voting rights nor will they be entitled to receive notice of or to attend shareholders' meetings. The holders of any particular series of First Preferred Shares will, if the directors of TCC so determine prior to the issuance of such series, be entitled to such voting rights as may be determined by the directors if TCC fails to pay dividends on that series of First Preferred Shares for any period as may be so determined by the directors.

Subject to the provisions of the *Canada Business Corporations Act* and any provisions relating to any particular series, TCC, upon giving proper notice, may redeem out of capital or otherwise at any time, or from time to time, the whole or any part of the then outstanding First Preferred Shares of any one or more series on payment for each such First Preferred Share of such price or prices as may be applicable to such series. Subject to the foregoing, in case a part only of the then outstanding First Preferred Shares of any particular series is at any time redeemed, the shares to be redeemed will be selected by lot in such manner as the directors or the transfer agent for the First Preferred Shares, if any, decide, or if the directors so determine, may be redeemed pro rata disregarding fractions.

The provisions attaching to the First Preferred Shares as a class may be modified, amended or varied only with the approval of the holders of the First Preferred Shares as a class. Any such approval to be given by the holders of the First Preferred Shares may be given by the affirmative vote of the holders of not less than $66^2/3$ per cent of the First Preferred Shares represented and voted at a meeting or adjourned meeting of such holders.

Second Preferred Shares

The rights, privileges, restrictions and conditions attaching to the Second Preferred Shares are substantially identical to those attaching to the First Preferred Shares, except that the Second Preferred Shares are junior to the First Preferred Shares with respect to the payment of dividends, repayment of capital and the distribution of the assets of TCC in the event of a liquidation, dissolution or winding up of TCC.

Subscription Receipts

The Subscription Receipts may be offered separately or together with the Common Shares, First Preferred Shares or Second Preferred Shares, as the case may be. The Subscription Receipts will be issued under a subscription receipt agreement that will be entered into by the Corporation at the time of issuance of the Subscription Receipts.

The applicable Prospectus Supplement will include details of the subscription receipt agreement covering the Subscription Receipts being offered. The specific terms of the Subscription Receipts, and the extent to which the general terms described in this section apply to those Subscription Receipts, will be set forth in the applicable Prospectus Supplement. A copy of the subscription receipt agreement will be filed by the Corporation with securities regulatory authorities in Canada after it has been entered into by the Corporation.

The particular terms of each issue of Subscription Receipts that will be described in the related Prospectus Supplement will include, where applicable:

- the number of Subscription Receipts;
- the price at which the Subscription Receipts will be offered;
- the procedures for the exchange of the Subscription Receipts into Common Shares, First Preferred Shares or Second Preferred Shares, as the case may be:
- the number of Common Shares, First Preferred Shares or Second Preferred Shares, as the case may be, that may be exchanged upon exercise of each Subscription Receipt;
- the designation and terms of any other Securities with which the Subscription Receipts will be offered, if any, and the number of Subscription Receipts that will be offered with each Security;
- terms relating to the holding and release or return of the gross proceeds from the sale of the Subscription Receipts plus any interest earned thereon;
- material income tax consequences of owning the Subscription Receipts; and
- any other material terms and conditions of the Subscription Receipts.

Pursuant to the Subscription Receipt agreement, original purchasers of Subscription Receipts will have a contractual right of rescission against the Corporation, following the issuance of the underlying Common Shares or other securities to such purchasers, upon the surrender or deemed surrender of the Subscription Receipts, to receive the amount paid for the Subscription Receipts in the event that the applicable Prospectus Supplement and any amendment thereto contains a misrepresentation or is not delivered to such purchaser, provided such remedy for rescission is exercised within 180 days from the closing date of the offering of Subscription Receipts.

PLAN OF DISTRIBUTION

We may sell the Securities: (i) through underwriters purchasing as principals; (ii) directly to one or more purchasers in accordance with applicable securities laws; or (iii) through agents. Securities may be sold from time to time in one or more transactions at a fixed price or fixed prices, or at non-fixed prices. If offered on a non-fixed price basis, Securities may be offered at market prices prevailing at the time of sale or at prices to be negotiated with purchasers at the time of sale, which prices may vary as between purchasers and during the period of distribution. If Securities are offered on a non-fixed price basis, the underwriters' compensation will be increased or decreased by the amount by which the aggregate price paid for Securities by the purchasers exceeds or is less than the gross proceeds paid by the underwriters to us.

The Prospectus Supplement relating to each offering of Securities will identify each underwriter or agent, as the case may be, and will also set forth the terms of that offering, including the type of Security being offered, the purchase price of such Security, the proceeds to the Corporation, any underwriters' or agents' fees, commissions or other items constituting underwriters' or agents' compensation, the public offering price, and any concessions or discounts allowed or reallowed or paid by any underwriters to others. Only underwriters or agents so named in the Prospectus Supplement are deemed to be underwriters or agents, as the case may be, in connection with the Securities offered thereby.

If underwriters purchase Securities as principal, the Securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase those Securities will be subject to certain conditions precedent, and the underwriters will be obligated to purchase all the Securities offered by the prospectus supplement if any of such Securities are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid may be changed from time to time.

The Securities may also be sold directly by us in accordance with applicable securities laws at prices and upon terms agreed to by the purchaser and us or through agents designated by us from time to time. Any agent involved in the offering and sale of the Securities pursuant to a particular Prospectus Supplement will be named, and any commissions payable us to that agent will be set forth, in such Prospectus Supplement. Unless otherwise indicated in the Prospectus Supplement, any agent would be acting on a best efforts basis for the period of its appointment.

In connection with the sale of the Securities, underwriters may receive compensation from us in the form of commissions, concessions or discounts. Any such commissions may be paid out of our general funds or the proceeds of the sale of the Securities. Under agreements which may be entered into by us, underwriters and agents who participate in the distribution of Securities may be entitled to indemnification by us against certain liabilities, including liabilities under securities legislation, or to contribution with respect to payments which such underwriters or agents may be required to make in respect thereof. Those underwriters and agents may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Any offering of Preferred Shares or Subscription Receipts will be a new issue of Securities with no established trading market. Unless otherwise specified in the applicable Prospectus Supplement, the Preferred Shares or Subscription Receipts will not be listed on any stock exchange. Certain dealers may make a market in such Securities, but will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given that any dealer will make a market in such Securities or as to the liquidity of the trading market, if any, for such Securities.

The applicable Prospectus Supplement will set forth the intention of any underwriters or agents who participate in the distribution of the Securities to overallot or effect transactions which stabilize, maintain, or otherwise affect the Security's price at a higher level than that which might exist in the open market. Such transactions may be commenced, interrupted or discontinued at any time without notice.

PRIOR SALES

We have not sold or issued any Common Shares, Preferred Shares, Subscription Receipts or securities convertible into Common Shares, Preferred Shares or Subscription Receipts during the twelve month period prior to the date hereof other than: (i) an aggregate of 2,163,988 Common Shares that were issued during this period upon the exercise of options ("Options") granted pursuant to our Stock Option Plan at a weighted average exercise price of \$35.67 per Option; (ii) 1,987,649 Options that were granted during this period to acquire an aggregate of 1,987,649 Common Shares at an average exercise price of \$47.05 per Option; and (iii) 24 million Series 7 Shares which were issued by the Corporation on March 4, 2013 at a price of \$25.00 per share.

TRADING PRICE AND VOLUME

The Common Shares are listed for trading on the TSX and the NYSE under the symbol "TRP" and the Series 1 Shares, the Series 3 Shares, the Series 5 Shares and the Series 7 Shares are listed for trading on the TSX under the symbols "TRP.Pr.A", "TRP.Pr.B", "TRP.Pr.C", and "TRP.Pr.D", respectively. The following table sets forth the reported monthly high, low and closing trading prices and monthly trading volumes of the Common Shares, Series 1 Shares, Series 3 Shares, Series 5 Shares and Series 7 Shares on the TSX for the period from October 1, 2012 to November 25, 2013.

| | | Common Shares | | | |
|---------------|---|------------------------------|------------|-------|------------|
| | | Share Price Trading Range | | | |
| | | ligh | Low | Close | Volume |
| | | | per share) | | |
| 2012 | | | | | |
| October | 4 | 15.4 5 | 43.16 | 44.97 | 23,049,914 |
| November | 4 | 45.98 | 43.64 | 45.98 | 20,383,391 |
| December | 4 | 17.44 | 45.30 | 47.02 | 22,542,514 |
| | | | | | |
| 2013 | | | | | |
| January | 4 | 19.44 | 46.82 | 47.21 | 26,082,774 |
| February | 4 | 18.87 | 46.80 | 48.04 | 25,462,009 |
| March | 5 | 50.08 | 47.40 | 48.50 | 25,389,845 |
| April | 5 | 50.26 | 47.65 | 49.94 | 26,052,153 |
| May | 5 | 51.21 | 47.07 | 47.56 | 26,146,463 |
| June | 4 | 17.97 | 44.62 | 45.28 | 33,556,916 |
| July | 4 | 17.79 | 45.10 | 46.93 | 23,656,071 |
| August | 4 | 18.48 | 44.75 | 45.91 | 20,421,616 |
| September | 4 | 46.51 | 44.89 | 45.25 | 20,209,858 |
| October | 4 | 17.24 | 43.94 | 46.99 | 21,425,727 |
| November 1-25 | 4 | 18.48 | 46.61 | 47.79 | 21,059,704 |

| | | Series | 1 Shares | <u> </u> | | Series | 3 Shares | | | Series | 5 Shares | <u> </u> | | Series 7 | 7 Shares ⁽ | 1) |
|-------------------|------------------------------|----------|---------------------------|----------|-------|----------|---------------------------|---------|-------|---------------------------|----------|----------|-------|----------|-----------------------|-----------|
| | Share Price Trading Range | | Share Price Trading Range | | | | Share Price Trading Range | | | Share Price Trading Range | | | | | | |
| | High | Low | Close | Volume | High | Low | Close | Volume | High | Low | Close | Volume | High | Low | Close | Volume |
| | (\$ | per shar | e) | | (\$ | per shar | e) | | (\$ | per shai | re) | | (\$ | per shar | e) | |
| 2012 | | | | | | | | | | | | | | | | |
| October | 25.85 | 25.41 | 25.50 | 214,250 | 25.10 | 24.82 | 24.96 | 432,217 | 25.64 | 25.30 | 25.43 | 217,288 | _ | _ | _ | _ |
| November | 25.70 | 25.21 | 25.33 | 345,144 | 24.97 | 24.15 | 24.23 | 309,882 | 25.80 | 25.36 | 25.59 | 172,451 | _ | _ | _ | _ |
| December | 25.75 | 25.25 | 25.69 | 251,155 | 24.47 | 24.14 | 24.43 | 321,065 | 26.07 | 25.61 | 25.95 | 156,765 | _ | _ | _ | _ |
| | | | | | | | | | | | | | | | | |
| 2013 | | | | | | | | | | | | | | | | |
| January | 26.00 | 25.50 | 25.75 | 442,484 | 25.00 | 24.39 | 24.80 | 555,279 | 25.95 | 25.30 | 25.70 | 282,832 | _ | _ | _ | _ |
| February | 26.00 | 25.33 | 25.49 | 413,651 | 24.90 | 24.34 | 24.56 | 621,184 | 25.87 | 25.44 | 25.62 | 285,166 | _ | _ | _ | _ |
| March | 25.75 | 25.35 | 25.66 | 405,750 | 25.04 | 24.32 | 24.93 | 508,121 | 26.08 | 25.41 | 25.59 | 321,154 | 26.15 | 25.25 | 26.00 | 3,292,039 |
| April | 25.79 | 25.22 | 25.45 | 514,560 | 24.90 | 24.37 | 24.65 | 571,040 | 25.79 | 25.40 | 25.50 | 292,516 | 26.15 | 25.82 | 26.00 | 1,990,847 |
| May | 25.59 | 25.16 | 25.19 | 677,235 | 24.97 | 24.55 | 24.76 | 448,999 | 25.75 | 25.39 | 25.60 | 235,352 | 26.10 | 25.70 | 25.75 | 640,573 |
| June | 25.29 | 23.12 | 24.76 | 330,543 | 24.90 | 22.60 | 23.19 | 263,285 | 25.65 | 24.25 | 24.75 | 177,521 | 25.87 | 24.72 | 25.16 | 912,786 |
| July | 25.24 | 24.41 | 24.43 | 289,147 | 23.94 | 22.81 | 22.86 | 349,059 | 24.75 | 23.00 | 23.30 | 329,537 | 25.61 | 24.95 | 25.18 | 639,196 |
| August | 25.24 | 24.41 | 24.43 | 289,147 | 22.96 | 20.27 | 21.72 | 312,075 | 23.73 | 21.25 | 23.10 | 270,842 | 25.12 | 23.80 | 24.87 | 478,375 |
| September | 25.14 | 24.19 | 24.65 | 379,661 | 22.09 | 19.91 | 20.14 | 922,863 | 23.97 | 22.50 | 23.34 | 450,168 | 25.05 | 23.85 | 24.84 | 383,697 |
| October | 24.67 | 23.26 | 24.11 | 287,790 | 20.64 | 19.94 | 20.03 | 290,469 | 23.74 | 22.00 | 22.75 | 251,607 | 25.12 | 24.50 | 25.05 | 765,889 |
| November 1- 25 | 24.80 | 23.58 | 24.30 | 202,401 | 21.10 | 19.98 | 20.85 | 418,223 | 23.19 | 22.26 | 22.80 | 637,150 | 25.17 | 24.50 | 25.00 | 402,305 |
| | | 20.00 | | 202, .01 | | 10.00 | _0.00 | .10,220 | 20.10 | | | 037,100 | 20117 | | 20.00 | .02,505 |

⁽¹⁾ The Series 7 Shares began trading on March 4, 2013.

ENFORCEABILITY OF CIVIL LIABILITIES

We are a corporation incorporated under and governed by the *Canada Business Corporations Act*. Some of our directors and officers, and some of the experts named in this prospectus, are residents of Canada or otherwise reside outside the U.S., and all or a substantial portion of their assets, and a substantial portion of the Corporation's assets which are held through subsidiaries, are located outside the U.S. We have appointed an agent for service of process in the U.S., but it may be difficult for holders of Securities who reside in the U.S. to effect service within the U.S. upon those directors, officers and experts who are not residents of the U.S. It may also be difficult for holders of Securities who reside in the U.S. to realize in the U.S. upon judgments of courts of the U.S. predicated upon the Corporation's civil liability and the civil liability of the directors and officers of the Corporation and experts under U.S. federal securities laws.

We have been advised by our Canadian counsel, Blake, Cassels & Graydon LLP, that a judgment of a U.S. court predicated solely upon civil liability under U.S. federal securities laws would probably be enforceable in Canada if the U.S. court in which the judgment was obtained has a basis for jurisdiction in the matter that would be recognized by a Canadian court for the same purposes. We have also been advised by Blake, Cassels & Graydon LLP, however, that there is real doubt whether an action could be brought in Canada in the first instance on the basis of liability predicated solely upon U.S. federal securities laws.

We have filed with the SEC, concurrently with our registration statement on Form F-10, an appointment of agent for service of process on Form F-X. Under the Form F-X, we appointed TransCanada Pipeline USA Ltd. as our agent for service of process in the U.S. in connection with any investigation or administrative proceeding conducted by the SEC, and any civil suit or action brought against or involving us in a U.S. court arising out of or related to or concerning the offering of Securities under this prospectus.

CERTAIN INCOME TAX CONSIDERATIONS

The applicable Prospectus Supplement will describe certain material Canadian federal income tax consequences to an investor who is a resident of Canada or who is a non-resident of Canada of the acquisition, ownership and disposition of any Securities offered thereunder, including whether the payment of dividends will be subject to Canadian non-resident withholding tax.

The applicable Prospectus Supplement will also describe certain material U.S. federal income tax consequences of the acquisition, ownership and disposition of any Securities offered thereunder by an initial investor who is a U.S. person (within the meaning of the United States Internal Revenue Code).

RISK FACTORS

Investment in the Securities is subject to various risks including those risks inherent in the pipeline, energy and gas storage industries. You should consider carefully the risk factors contained in and incorporated by reference in this prospectus (including subsequently filed documents incorporated by reference) and those described in a Prospectus Supplement relating to a specific offering of Securities.

Discussions of certain risks affecting us in connection with our business are provided in our annual and interim disclosure documents filed with the various securities regulatory authorities which are incorporated by reference in this prospectus.

LEGAL MATTERS

Certain matters relating to the issue and sale of the Securities will be passed upon on behalf of the Corporation by Blake, Cassels & Graydon LLP, as to matters of Canadian law, and Mayer Brown LLP will rely upon the opinion of Blake, Cassels & Graydon LLP.

EXPERTS

The consolidated financial statements of the Corporation as at December 31, 2012 and 2011 and for each of the years in the three-year period ended December 31, 2012, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, Chartered Accountants, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

INTEREST OF EXPERTS

As at the date of this prospectus, the partners and associates of Blake, Cassels & Graydon LLP, as a group, and the partners and associates of Mayer Brown LLP, as a group, beneficially own, directly or indirectly, less than 1% of any class of securities of the Corporation. In connection with the audit of the Corporation's annual financial statements for the year ended December 31, 2012, KPMG LLP confirmed that they are independent within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Alberta and within the meaning of the *Securities Act* and the applicable rules and regulations thereunder adopted by the SEC and the Public Company Accounting Oversight Board (United States).

DOCUMENTS FILED AS PART OF THE REGISTRATION STATEMENT

The following documents have been or will be filed with the SEC as part of the registration statement of which this prospectus forms a part: the documents referred to under "Documents Incorporated by Reference"; consents of KPMG LLP; consent of Blake, Cassels & Graydon LLP; consent of Mayer Brown LLP; and powers of attorney from directors and officers of the Corporation.

PART II

INFORMATION NOT REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

Indemnification of Certain Persons

Section 124 of the *Canada Business Corporations Act* ("CBCA") and Section 6 of By-Law No. 1 of TransCanada Corporation ("TransCanada" or the "Registrant") provide for the indemnification of directors and officers of TransCanada. Under these provisions, TransCanada shall indemnify a director or officer of TransCanada, a former director or officer, and may indemnify an individual who acts or acted at TransCanada's request as a director or officer or in a similar capacity of another entity (collectively, an "Indemnified Person") against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the Indemnified Person in respect of any civil, criminal, administrative, investigative or other proceeding (other than in respect to an action by or on behalf of TransCanada to procure a judgment in its favor) in which the individual is involved because of that association with TransCanada or other entity, if the Indemnified Person fulfills the following two conditions: (a) he or she acted honestly and in good faith with a view to the best interests of TransCanada or in the best interests of such other entity as applicable and (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he or she had reasonable grounds for believing that his or her conduct was lawful. In respect of an action by or on behalf of TransCanada or such other entity to procure a judgment in its favor, TransCanada, with the approval of a court, may indemnified Person against all costs, charges and expenses reasonably incurred by him or her in connection with such action if he or she fulfills the conditions set out in clauses (a) and (b) of the previous sentence. Notwithstanding the foregoing, an Indemnified Person is entitled to indemnification from TransCanada in respect of all costs, charges and expenses reasonably incurred by him or her in connection with the defense of any civil, criminal, administrative, investigative or other pro

Insofar as indemnification for liabilities arising under the United States Securities Act of 1933, as amended (the "Securities Act") may be permitted to directors, officers or controlling persons of the Registrant pursuant to the provisions described above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

TransCanada maintains directors' and officers' liability insurance with policy limits of U.S. \$200,000,000 in the aggregate, subject to a deductible in respect of corporate reimbursement of U.S.\$5,000,000 for each loss and a separate policy with a limit of U.S.\$50,000,000 for non-indemnifiable losses only. Generally, under this insurance TransCanada is reimbursed for payments in excess of the deductible made under corporate indemnity provisions on behalf of its directors and officers, and individual directors and officers (or their heirs and legal representatives) are covered for losses arising during the performance of their duties for which they are not indemnified by TransCanada. Noteworthy exclusions from coverage are: claims arising from illegal acts, those acts which result in illegal personal profit, violation of any fiduciary duty under the United States of America Employee Retirement Income Security Act of 1974, pollution damage (except for resultant shareholder actions), bodily injury, property damage or engineering professional services and claims brought by a director or officer against another director or officer or by TransCanada against a director or officer except for shareholder derivative actions not assisted in by a director or officer of TransCanada.

The foregoing is a description of the provisions of Section 124 of the CBCA and TransCanada's By-Law No. 1 regarding indemnification of directors and officers of TransCanada and TransCanada's directors' and officers' liability insurance in effect as of November 25, 2013.

Additionally, directors and officers of TransCanada are party to indemnity agreements with TransCanada pursuant to which TransCanada has agreed to indemnify such directors and officers from liability arising in connection with the performance of their duties. Such indemnity agreements conform with the provisions of the CBCA.

EXHIBITS

| | EXHIBITS |
|-------------------|--|
| Exhibit Number | Description |
| 4. | |
| 4.: | Management's Discussion and Analysis of Financial Condition and Results of Operations of TransCanada as at and for the year ended December 31, 2012 (included as part of the Form 40-F filed with the Securities and Exchange Commission on February 13, 2013 and incorporated by reference herein). |
| 4. | Annual Information Form of TransCanada for the year ended December 31, 2012, dated February 11, 2013 (included as part of the Form 40-F filed with the Securities and Exchange Commission on February 13, 2013 and incorporated by reference herein). |
| 4. | 4 Management Proxy Circular dated February 11, 2013 (filed with the Securities and Exchange Commission as part of a Form 6-K report on February 27, 2013 and incorporated by reference herein). |
| 4. | Consolidated comparative interim unaudited financial statements of TransCanada as at September 30, 2013 and for the nine-month periods ended September 30, 2013 and 2012, and the notes thereto (filed with the Securities and Exchange Commission as part of a Form 6-K report on November 5, 2013 and incorporated by reference herein). |
| 4. | Management's Discussion and Analysis of Financial Condition and Results of Operations of TransCanada as at and for the nine-month period ended September 30, 2013 (filed with the Securities and Exchange Commission as part of a Form 6-K report on November 5, 2013 and incorporated by reference herein). |
| **4. | 7 Consent of KPMG LLP filed with the Alberta Securities Commission. |
| **4. | 8 Consent of Blake, Cassels & Graydon LLP filed with the Alberta Securities Commission. |
| **4. | 9 Consent of Mayer Brown LLP filed with the Alberta Securities Commission. |
| *5. | 1 Consent of KPMG LLP. |
| **5 | Consent of Blake, Cassels & Graydon LLP. |
| **5. | 3 Consent of Mayer Brown LLP. |
| *6. | Power of attorney (included in the signature page to this Registration Statement). |
| * | Filed herewith. |
| ** | To be filed by amendment. |

PART III

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

Item 1. Undertaking

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the Commission staff, and to furnish promptly, when requested to do so by the Commission staff, information relating to the securities registered pursuant to Form F-10 or to transactions in said securities.

Item 2. Consent to Service of Process

- (a) Concurrently with the filing of this Registration Statement, the Registrant is filing with the Commission a written irrevocable consent and power of attorney on Form F-X.
- (b) Any change to the name or address of the agent for service of the Registrant shall be communicated promptly to the Commission by amendment to Form F-X referencing the file number of the relevant registration statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-10 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Calgary, Province of Alberta, Country of Canada, on the 26th day of November, 2013.

TRANSCANADA CORPORATION

By: /s/ RUSSELL K. GIRLING

Name: Russell K. Girling

Title: President and Chief Executive Officer

III-2

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Russell K. Girling, Donald R. Marchand and Christine R. Johnston his or her true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement, and any additional registration statements pursuant to Rule 462(b), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing appropriate or necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

This Power of Attorney may be executed in multiple counterparts, each of which shall be deemed an original, but which taken together shall constitute one instrument.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|--|--|-------------------|
| /s/ RUSSELL K. GIRLING Russell K. Girling | President and Chief Executive Officer (Principal Executive Officer) | November 26, 2013 |
| /s/ DONALD R. MARCHAND Donald R. Marchand | Executive Vice-President and Chief Financial Officer (Principal Financial Officer) | November 26, 2013 |
| /s/ G. GLENN MENUZ G. Glenn Menuz | Vice-President and Controller (Principal Accounting Officer) | November 26, 2013 |
| /s/ S. BARRY JACKSON S. Barry Jackson | Director, Chair | November 26, 2013 |
| /s/ KEVIN E. BENSON | Director | November 26, 2013 |
| Kevin E. Benson /s/ DEREK H. BURNEY | Director | November 26, 2013 |
| Derek H. Burney, O.C. | III-3 | |

| /s/ PAULE GAUTHIER | | |
|--|----------|-------------------|
| The Hon. Paule Gauthier, P.C., O.C., O.Q, Q.C. | Director | November 26, 2013 |
| /s/ PAULA ROSPUT REYNOLDS | | |
| Paula Rosput Reynolds | Director | November 26, 2013 |
| /s/ JOHN RICHELS | | |
| John Richels | Director | November 26, 2013 |
| /s/ MARY PAT SALOMONE | | |
| Mary Pat Salomone | Director | November 26, 2013 |
| /s/ W. THOMAS STEPHENS | | |
| W. Thomas Stephens | Director | November 26, 2013 |
| /s/ D. MICHAEL G. STEWART | | |
| D. Michael G. Stewart | Director | November 26, 2013 |
| /s/ RICHARD E. WAUGH | | |
| Richard E. Waugh | Director | November 26, 2013 |
| | III-4 | |

Title

Date

Signature

AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this Registration Statement, solely in the capacity of the duly authorized representative of TransCanada Corporation in the United States, on November 26, 2013 in Calgary, Alberta, Canada.

TRANSCANADA PIPELINE USA LTD.

By: /s/ CHRISTINE R. JOHNSTON

Name: Christine R. Johnston

Title: Vice-President and Assistant Secretary

III-5

EXHIBIT INDEX

| | EXHIBIT INDEX |
|---------------|--|
| Exhibit | Description |
| Number 4.1 | Audited comparative consolidated financial statements of TransCanada as at December 31, 2012 and 2011 and for each of the years in the three-year period ended December 31, 2012, the notes thereto, and the auditors' report thereon (included as part of the Form 40-F filed with the Securities and Exchange Commission on February 13, 2013 and incorporated by reference herein). |
| 4.2 | Management's Discussion and Analysis of Financial Condition and Results of Operations of TransCanada as at and for the year ended December 31, 2012 (included as part of the Form 40-F filed with the Securities and Exchange Commission on February 13, 2013 and incorporated by reference herein). |
| 4.3 | Annual Information Form of TransCanada for the year ended December 31, 2012, dated February 11, 2013 (included as part of the Form 40-F filed with the Securities and Exchange Commission on February 13, 2013 and incorporated by reference herein). |
| 4.4 | Management Proxy Circular dated February 11, 2013 (filed with the Securities and Exchange Commission as part of a Form 6-K report on February 27, 2013 and incorporated by reference herein). |
| 4.5 | Consolidated comparative interim unaudited financial statements of TransCanada as at September 30, 2013 and for the nine-month periods ended September 30, 2013 and 2012, and the notes thereto (filed with the Securities and Exchange Commission as part of a Form 6-K report on November 5, 2013 and incorporated by reference herein). |
| 4.6 | Management's Discussion and Analysis of Financial Condition and Results of Operations of TransCanada as at and for the nine-month period ended September 30, 2013 (filed with the Securities and Exchange Commission as part of a Form 6-K report on November 5, 2013 and incorporated by reference herein). |
| **4.7 | Consent of KPMG LLP filed with the Alberta Securities Commission. |
| **4.8 | Consent of Blake, Cassels & Graydon LLP filed with the Alberta Securities Commission. |
| **4.9 | Consent of Mayer Brown LLP filed with the Alberta Securities Commission. |
| *5.1 | Consent of KPMG LLP. |
| **5.2 | Consent of Blake, Cassels & Graydon LLP. |
| **5.3 | Consent of Mayer Brown LLP. |
| *6.1 | Power of attorney (included in the signature page to this Registration Statement). |
| * Fil | led herewith. |
| ** To | be filed by amendment. |
| | III-6 |
| | |

QuickLinks

PART I INFORMATION REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

TABLE OF CONTENTS

FORWARD-LOOKING INFORMATION

DOCUMENTS INCORPORATED BY REFERENCE

ABOUT THIS PROSPECTUS

WHERE TO FIND MORE INFORMATION

THE CORPORATION

CONSOLIDATED CAPITALIZATION

USE OF PROCEEDS

EARNINGS COVERAGE

DESCRIPTION OF THE SECURITIES BEING DISTRIBUTED

PLAN OF DISTRIBUTION

PRIOR SALES

TRADING PRICE AND VOLUME

ENFORCEABILITY OF CIVIL LIABILITIES

CERTAIN INCOME TAX CONSIDERATIONS

RISK FACTORS

LEGAL MATTERS

EXPERTS

INTEREST OF EXPERTS

DOCUMENTS FILED AS PART OF THE REGISTRATION STATEMENT

PART II INFORMATION NOT REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

EXHIBITS

PART III UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

Item 1. Undertaking

Item 2. Consent to Service of Process

SIGNATURES

POWER OF ATTORNEY

AUTHORIZED REPRESENTATIVE

EXHIBIT INDEX



KPMG LLP 205-5th Avenue SW Suite 2700, Bow Valley Square 2 Calgary AB T2P 4B9 Telephone (403) 691-8000 Fax (403) 691-8008 www.kpmg.ca

Consent of Independent Registered Public Accounting Firm

The Board of Directors of TransCanada Corporation

We consent to the use of our audit report dated February 11, 2013, on the consolidated financial statements of TransCanada Corporation, which comprise the consolidated balance sheets as at December 31, 2012 and December 31, 2011, the consolidated statements of income, comprehensive income, accumulated other comprehensive loss, equity and cash flows for each of the years in the three-year period ended December 31, 2012, and notes, comprising a summary of significant accounting policies and other explanatory information, which is incorporated herein by reference and to the reference to our firm under the heading "Experts" in the prospectus.

KPMGLLP

Chartered Accountants

November 26, 2013 Calgary, Canada

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International, a Swiss cooperative. KPMG Canada provides services to KPMG LLP.

QuickLinks

Exhibit 5.1

Consent of Independent Registered Public Accounting Firm