

Management Information Circular

FEBRUARY 28, 2017

NOTICE OF ANNUAL
MEETING OF SHAREHOLDERS
TO BE HELD MAY 5, 2017

With more than 65 years' experience, TransCanada is a leader in the responsible development and reliable operation of North American energy infrastructure including natural gas and liquids pipelines, power generation and gas storage facilities.

TransCanada's common shares trade on the Toronto and New York stock exchanges under the symbol TRP.

1	LETTER TO SHAREHOLDERS
2	NOTICE OF 2017 ANNUAL MEETING
3	MANAGEMENT INFORMATION CIRCULAR
4	Summary
6	ABOUT THE SHAREHOLDER MEETING
6	Delivery of Meeting Materials
6	Voting
10	Business of the Meeting
26	GOVERNANCE
26	About Our Governance Practices
50	COMPENSATION
50	Compensation Governance
56	Director Compensation Discussion and Analysis
60	Director Compensation – 2016 Details
65	Human Resources Committee Letter to Shareholders
68	Executive Compensation Discussion and Analysis
95	Executive Compensation – 2016 Details
108	OTHER INFORMATION
109	APPENDICES

We encourage you to sign up for electronic delivery of the 2017 Annual Report and 2018 Management Information Circular.

Registered Shareholders can go to www.investorcentre.com, and click on "Sign up for eDelivery" at the bottom of the page. Enter your Holder Account Number from your form of proxy, and enter your postal code (if you are a Canadian resident), or your Family or Company Name (if you are not a resident of Canada), and click "Sign In".

Non-registered shareholders can go to www.investordelivery.com using the control number found on your voting instruction form or at www.proxyvote.com when you have finished voting. You can click on "Enroll for Electronic Delivery" and follow the instructions.

Letter to shareholders

February 28, 2017

Dear Shareholder:

TransCanada Corporation is pleased to invite you to the annual meeting of common shareholders on May 5, 2017. The meeting will be held at 10:00 a.m. (Mountain Daylight Time) in the Markin MacPhail Centre at Canada Olympic Park, 88 Canada Olympic Road S.W., Calgary, Alberta.

Attending the meeting is your opportunity to meet the Board of Directors (Board) and management, learn more about our performance in 2016 and our strategy for the future, and vote in person on the items of business. If you are unable to attend the meeting in person, you can vote by proxy and listen to the live webcast on our website (www.transcanada.com).

The attached Management information circular includes important information about the meeting and how to vote. Please take some time to read the document and remember to vote. You can find more information about TransCanada in our 2016 Annual report and on our website.

The Board would like to extend our sincere thanks to Mr. John Richels, who is retiring from the Board on May 5, 2017. Mr. Richels has provided many years of dedicated service to TransCanada and our shareholders. Mr. Richels served as a director for four years, during which time his industry knowledge and management experience provided valuable context and perspective to the Human Resources and Health, Safety and Environment committees.

The Board would also like to welcome Dr. Samarasekera to the Board. She was elected at the 2016 annual meeting of common shareholders, and brings a wealth of engineering, governance, public policy and leadership expertise to the Board of Directors.

On February 15, 2017, TransCanada announced the appointment of Mr. Stéphan Crétier to the Board of Directors, effective February 17, 2017. Mr. Crétier's leadership skills, strategic insight and business acumen will be a valuable addition to the Board.

At the end of 2016, TransCanada announced that Mr. Siim A. Vanaselja will be the next Chair of the Board, subject to his re-election. I will retire as Chair of the Board at the close of the 2017 annual meeting of common shareholders, and be succeeded by Mr. Vanaselja. I will continue to serve as a Board member, subject to my re-election.

Thank you for your continued confidence in TransCanada. Russ Girling, our CEO, and I look forward to seeing you at the meeting on May 5th.

Sincerely,



S. Barry Jackson
Chair of the Board of Directors

Notice of 2017 annual meeting

You are invited to our 2017 annual meeting of common shareholders:

WHEN

Friday, May 5, 2017 at 10:00 a.m.
Mountain Daylight Time (MDT)

WHERE

The Markin MacPhail Centre
Canada Olympic Park
88 Canada Olympic Road S.W.
Calgary, Alberta

YOUR VOTE IS IMPORTANT

If you are a shareholder of record of TransCanada common shares on March 20, 2017, you are entitled to receive notice of, attend and vote at this meeting.

Please take some time to read the attached Management information circular. It contains important information about the meeting and explains who can vote and how to vote.

By order of the Board of Directors,



Christine R. Johnston
Vice-President, Law and Corporate Secretary
TransCanada Corporation
Calgary, Alberta

February 28, 2017

Five items of business

1. Receive our audited consolidated financial statements for the year ended December 31, 2016, and the auditors' report.
2. Elect the directors.
3. Appoint the auditors and authorize the directors to set their compensation.
4. Participate in the advisory vote on our approach to executive compensation ('say on pay').
5. Consider other business that is properly brought before the meeting or any meeting that is reconvened if the meeting is adjourned.

Management information circular

We are sending you this Management information circular (circular) because you are a shareholder of record of TransCanada shares on March 20, 2017. You have the right to attend our 2017 annual meeting of common shareholders and to vote your shares in person or by proxy. If you are unable to attend the meeting, you can listen to the webcast in English on our website (www.transcanada.com).

Management is soliciting your proxy for the meeting, and we pay all costs for soliciting proxies. We will start mailing the proxy materials on March 28, 2017, and will also provide the materials to brokers, custodians, nominees and other fiduciaries to forward them to shareholders. A TransCanada employee may also contact you to encourage you to vote.

The Board of Directors (Board) has approved the contents of this circular, and has authorized us to send it to you. We have also sent a copy to each member of our Board and to our auditors, and will file copies with the appropriate government agencies.

In this document,

- ***you, your*** and ***shareholder*** mean a holder of common shares of TransCanada Corporation,
- ***we, us, our*** and ***TransCanada*** mean TransCanada Corporation, and
- ***TransCanada shares*** and ***shares*** mean common shares of TransCanada Corporation, unless stated otherwise.

Our principal corporate and executive offices are located at 450 1st Street S.W., Calgary, Alberta T2P 5H1

By order of the Board of Directors,



Christine R. Johnston
Vice-President, Law and Corporate Secretary
TransCanada Corporation
Calgary, Alberta

February 28, 2017

About shareholder mailings

In March 2016, we asked all registered and beneficial shareholders to advise us in writing if they did not want to receive our Annual reports when they became available.

If you are a registered shareholder who replied that you no longer want to receive the report, or a beneficial shareholder who did not reply, you will not receive a copy. If you purchased TransCanada shares after March 20, 2017, you may also not receive a copy of our 2016 Annual report.

Our 2016 Annual report is available on our website (www.transcanada.com) and on SEDAR (www.sedar.com), or you can request a free copy from our transfer agent:

Computershare Trust Company of Canada

Tel: 1.800.340.5024 (toll-free within North America)
1.514.982.7959 (outside North America)

Email: transcanada@computershare.com

Summary

The following pages are key points of information you will find in this circular. You should read the entire circular before voting.

Voting

You will be asked to vote on three items at the meeting:

Item	Board recommendation	More information (pages)
Elect 12 directors	For	12
Appoint KPMG LLP, Chartered Professional Accountants as auditors	For	10
Advisory vote on executive compensation (say on pay)	For	50 – 55, 65 – 107

Nominated Directors

Name	Occupation	Age	Independent	Director since	% Votes at 2016 AGM	2016 Committees	2016 Board attendance	Number of other public boards
Kevin E. Benson Calgary, AB	Corporate Director	70	Yes	2005	99.55	Audit Governance	100%	0
Derek H. Burney Ottawa, ON	Senior Strategic Advisor, Norton Rose Fulbright	77	Yes	2005	97.49	Audit Governance (Chair)	100%	0
Stéphan Crétier Dubai, UAE	Chairman, President and Chief Executive Officer, Garda World Security Corporation	53	Yes	2017	–	Audit Health, Safety & Environment	–	0
Russell K. Girling Calgary, AB	President and Chief Executive Officer, TransCanada	54	No	2010	99.83	–	100%	1
S. Barry Jackson Calgary, AB	Corporate Director	64	Yes	2002	97.70	Board Chair Governance Human Resources	100%	1
John E. Lowe Houston, TX	Corporate Director	58	Yes	2015	99.77	Audit Health, Safety & Environment	100%	2
Paula Rospot Reynolds Seattle, WA	President and Chief Executive Officer, PreferWest, LLC	60	Yes	2011	99.08	Health, Safety & Environment Human Resources (Chair)	100%	3
Mary Pat Salomone Naples, FL	Corporate Director	56	Yes	2013	99.75	Health, Safety & Environment Human Resources	100%	2
Indira Samarasekera Vancouver, BC	Senior Advisor, Bennett Jones LLP	64	Yes	2016	99.64	Audit Governance	100%	2
D. Michael G. Stewart Calgary, AB	Corporate Director	65	Yes	2006	99.81	Audit Health, Safety & Environment (Chair)	100%	2
Siim A. Vanaselja Westmount, QC	Corporate Director	60	Yes	2014	99.62	Audit (Chair) Governance	100%	1
Richard E. Waugh Calgary, AB	Corporate Director	69	Yes	2012	99.43	Governance Human Resources	100%	1

Compensation

TransCanada's compensation programs are designed to 'pay for performance' by rewarding employees, including our executives, for delivering results that meet or exceed our corporate objectives and support our overall strategy.

In order to attract, engage and retain high-performing employees, we review our programs each year to ensure we offer compensation that is market competitive. Our target compensation levels are determined with reference to median levels in our peer group. Actual performance that exceeds expectations can result in compensation above market median levels.

Our compensation programs are intended to align the executives' interests with those of our various stakeholders. The Human Resources committee and the Board place a significant emphasis on variable compensation, particularly long-term incentives, when determining the total direct compensation for our executives. Both our executive share unit and stock option plans encourage value creation over the long-term.

Our best practices include:

- benchmarking director and executive compensation against size appropriate peer groups to assess competitiveness and fairness
- maximums on variable compensation payments
- share ownership requirements for our directors and executives
- incentive compensation reimbursement ('clawback') policy and anti-hedging policy, and
- annual say on pay vote, averaging 96 per cent approval for the last three years.

Governance

We believe that strong corporate governance improves corporate performance and benefits all stakeholders. Our governance highlights are noted below.

Size of Board	13
Percentage of independent directors	92%
Percentage of women on Board	23%
Number of board interlocks	0
External board service limits for independent directors	4 public company boards in total
Corporate governance guideline on Board diversity	Yes
Average director age	62
All committees independent	Yes
Annual director elections	Yes
Individual director elections	Yes
Majority voting policy	Yes
Independent executive compensation consultant	Yes
Clawback policy	Yes
Double-trigger vesting on change of control	Yes
Separate chair and CEO	Yes
Director retirement age	70
Director share ownership requirements	4x cash + equity retainer
Executive share ownership requirements	5x (CEO), 2x (other named executives)
In-camera sessions at every Board and committee meeting	Yes
Annual say on pay	Yes
Code of business ethics	Yes
Board, committee and director evaluations annually	Yes
Board orientation and education program	Yes

Notes

- There are currently 13 directors on the Board, however, there will be 12 directors after the annual meeting of shareholders, as Mr. Richels is retiring.
- The Board may waive the director retirement policy in special circumstances or if a director has not yet served seven years on the Board by age 70. The Board has waived the retirement policy for Mr. Benson and Mr. Burney, as discussed on page 42.
- All executives must meet their requirements through direct share ownership.

About the shareholder meeting

As a shareholder of record, you are entitled to vote your TransCanada shares at the annual meeting. The meeting will cover five items of business, which are discussed in more detail starting on page 10.

This next section discusses delivery of the meeting materials and the voting process.

Delivery of meeting materials

We are using notice and access to deliver the circular to our registered shareholders.

This means that TransCanada will post the circular online for our shareholders to access electronically. You will receive a package in the mail with a notice (Notice) explaining how to access and review the circular electronically and how to request a paper copy at no charge. You will also receive a form of proxy in the mail so you can vote your shares.

Notice and access is an environmentally friendly and cost effective way to distribute the circular because it reduces printing, paper and postage.

This circular is available on SEDAR (www.sedar.com) and on our website (www.transcanada.com/notice-and-access).

How to request a paper copy of the circular

Starting March 28, 2017, registered shareholders can request a paper copy of the circular for up to one year. The circular will be sent to you at no charge.

If you would like to receive a paper copy of the circular, please follow the instructions provided in the Notice.

Requests by registered shareholders must be made by **5:00 p.m. Eastern Daylight Time (EDT), Wednesday, April 19, 2017** in order for you receive a paper copy of the circular before the annual meeting on May 5, 2017.

If you request a paper copy of the circular you will not receive a new form of proxy, so you should keep the original form sent to you in order to vote.

If you have questions about notice and access, you can call our Investor Relations line at 403.920.7911 or 1.800.361.6522.

Voting

WHO CAN VOTE

Shareholders of record on March 20, 2017 are entitled to receive notice of our 2017 annual meeting of common shareholders and vote their shares. Our Board set this date to allow enough time for shareholders to receive and review the materials, make their voting decisions and send in their voting instructions before the deadline.

As of February 28, 2017, we had 866,979,395 shares outstanding. Each share carries the right to one vote on any item of business that properly comes before the meeting and any meeting that is reconvened if the meeting is adjourned. Subject to our majority voting policy for director elections (see Governance Philosophy- Majority Voting), we need a simple majority of votes (50 per cent plus one vote) for all items to be approved by shareholders.

As of February 28, 2017, we had the following preferred shares outstanding:

First Preferred Shares	Number of shares outstanding
Series 1	9,498,423
Series 2	12,501,577
Series 3	8,533,405
Series 4	5,466,595
Series 5	12,714,261
Series 6	1,285,739
Series 7	24,000,000
Series 9	18,000,000
Series 11	10,000,000
Series 13	20,000,000
Series 15	40,000,000

The holders of these shares do not have voting rights at the meeting.

Registered shareholders

You are a registered shareholder if you have a share certificate in your name.

We will prepare a list of the registered shareholders as of March 20, 2017, showing the names of all shareholders who are entitled to vote at the meeting and the number of shares each owns. Our transfer agent, Computershare Trust Company of Canada (Computershare), will have a copy of the list at their Calgary office if you want to check it during regular business hours. Computershare is located at Suite 600, 530 8th Avenue S.W., Calgary, Alberta T2P 3S8. Tel: 403.267.6800.

You can also check the list when you arrive at the meeting.

Non-registered (beneficial) shareholders

You are a non-registered or beneficial shareholder if your securities broker, financial institution, clearing agency, trustee or custodian (your nominee) holds the shares for you in a nominee account.

Principal shareholders

Our directors and executives are not aware of any person or corporation that beneficially owns, directly or indirectly, or exercises control or direction over, more than 10 per cent of our outstanding shares.

HOW TO VOTE

You have two ways to vote:

- by proxy, or
- by attending the meeting and voting in person.

Voting by proxy

Voting by proxy means you are giving someone else the authority to attend the meeting and vote for you (your proxyholder).

You must return your signed proxy form in order to vote by proxy.

If you appoint the TransCanada proxyholders and specify your voting instructions, your shares will be voted accordingly. If you do not specify how you want to vote your shares, your shares will be voted for you as follows:

- **for** the nominated directors listed on the proxy form and in this circular,
- **for** the appointment of KPMG LLP, Chartered Professional Accountants as TransCanada's auditors and authorizing the directors to set their compensation, and
- **for** our approach to executive compensation, as described in this circular.

If you appoint someone else as your proxyholder, but do not specify how you want to vote your shares, the person can vote as they see fit.

If there are any amendments to the items of business or any other matters that properly come before the meeting (including

where the meeting will be reconvened if it was adjourned), your proxyholder has the discretion to vote as they see fit, in each instance, to the extent permitted by law whether the amendment or other matter of business that comes before the meeting is routine or contested.

Late proxies may be accepted or rejected by the chair of the meeting at his or her discretion and the chair of the meeting is under no obligation to accept or reject any particular late proxy. The Chair of the meeting may waive or extend the proxy cut-off without notice.

You can choose anyone to be your proxyholder – the person does not need to be a TransCanada shareholder or the TransCanada representatives named in the proxy form. You must write the person's name on your proxy form, and return the signed proxy form to Computershare to appoint someone as your proxyholder.

You should tell this person that you have appointed him or her as your proxyholder and that they need to attend the meeting in person and vote on your behalf. Your proxyholder must vote your shares according to your instructions. Your shares will not be voted if your proxyholder does not attend the meeting to vote for you.

If you have returned your signed proxy form and you do not appoint anyone to be your proxyholder, S. Barry Jackson, Chair of the Board, Russell K. Girling, President and Chief Executive Officer or Christine R. Johnston, Vice-President, Law and Corporate Secretary (TransCanada proxyholders) will be appointed to act as your proxyholder to vote or withhold from voting your shares at the meeting according to your instructions.

Registered shareholders

We mail the Notice directly to you, and your package includes a proxy form.

You may request a paper copy of the circular by following the instructions in the Notice that was mailed to you.

Appointing a proxyholder

You can appoint the TransCanada proxyholders named on the proxy form to vote your shares at the meeting according to your instructions. If you appoint them, but do not indicate your voting instructions on the form, your shares will be voted **for** each item of business.

You can decide to appoint someone else to represent you and vote your shares at the meeting. Print the name of that person in the blank space on the proxy form. If you do not specify how to vote your shares, your proxyholder can vote as they see fit.

Take some time to read about the items of business (see page 10), then complete the proxy form mailed to you, sign and date it, and mail it in the envelope provided.

Computershare must receive the completed form **by 12:00 p.m. Eastern Daylight Time (EDT) on Wednesday, May 3, 2017.**

If your package is missing an envelope, use a blank one and address it to:

Computershare Trust Company of Canada
Stock Transfer Services
100 University Avenue, 8th Floor
Toronto, Ontario M5J 2Y1

If you want to submit your voting instructions by phone or on the internet, you must do so **by 12:00 p.m. EDT on Wednesday, May 3, 2017.** See the instructions on your proxy form.

Attending the meeting and voting in person

If you want to attend the meeting and vote in person, do not complete the proxy form. Just register with Computershare when you arrive at the meeting.

You can still attend the meeting if you have already submitted your voting instructions, but you cannot vote again at the meeting, unless you revoke your proxy as described on the next page.

Non-registered (beneficial) shareholders

Your broker, its agent or its nominee can only vote your TransCanada shares if they have received proper voting instructions from you. If you are a beneficial shareholder, your package includes a voting instruction form. Complete the form and follow the return instructions on the form.

The voting instruction form is similar to a proxy form, however it can only instruct the registered shareholder how to vote your shares. You cannot use the form to vote your shares directly.

Your broker is required by law to receive voting instructions from you before voting your shares. Every broker has their own mailing procedures and instructions for returning the completed voting instruction form, so be sure to follow the instructions provided on the form.

Most brokers delegate responsibility for obtaining instructions from their clients to Broadridge Investor Communications Corporation (Broadridge). Broadridge mails the proxy materials and voting instruction form to beneficial shareholders, at our expense.

The voting instruction form will name the same TransCanada representatives listed on page 7 to act as TransCanada proxyholders.

Attending the meeting and voting in person

You can attend the meeting and vote in person, or you can appoint someone else to attend the meeting and give your voting instructions. Print your name, or the name of the person you are appointing, in the blank space provided on the voting instruction form. Complete the rest of the form and then mail it to Broadridge (or to your broker, as instructed on your voting instruction form) as soon as possible. Your package also includes instructions for submitting your voting instructions by phone or on the internet if you prefer either of these methods. You can still attend the meeting if you have already submitted your voting instructions, but you cannot vote again at the meeting, unless you revoke your proxy as described below.

Broadridge tabulates the results of all the instructions it receives from beneficial shareholders, and provides appropriate voting instructions to our transfer agent.

CHANGING YOUR VOTE

Registered Shareholders

If you change your mind and want to revoke your proxy, you need to notify us in writing. Sign a written statement (or have your attorney sign a statement with your written authorization) and send it to:

Corporate Secretary
TransCanada Corporation
450 1st Street S.W.
Calgary, Alberta T2P 5H1
Fax: 403.920.2467

We must receive the notice **by 12:00 p.m. EDT on Wednesday, May 3, 2017**, or the last business day prior to the day the meeting is reconvened if it was adjourned. You can also give the notice to the Chair of the meeting in person at the meeting.

If you submitted your voting instructions by phone or on the internet, you can revoke or change your vote by sending your new instructions again, as long as they are received **by 12:00 p.m. EDT on Wednesday, May 3, 2017**, or the last business day prior to the day the meeting is reconvened if it was adjourned. A vote that is cast with a later date and time will supersede an earlier vote.

Non-registered (beneficial) Shareholders

If you change your mind, contact your broker or nominee.

HOW THE VOTES ARE COUNTED

As transfer agent, Computershare counts and tabulates the votes on our behalf to ensure the votes are kept confidential. They only show us the ballot or proxy form if:

- it is required by law,
- there is a proxy contest, or
- there are written comments on the proxy form.

Unable to attend the meeting?

We will have a live webcast of our meeting in English on our website – go to www.transcanada.com for details.

Business of the meeting

Our annual meeting will cover five items of business:

FINANCIAL STATEMENTS – see our 2016 Annual report (available at www.transcanada.com). You will receive our consolidated financial statements for the year ended December 31, 2016, and the auditors' report. These documents have been filed with the appropriate government regulatory agencies and are included in our 2016 Annual report. We mail you the Annual report unless you declined in writing, or failed to respond that you wanted to receive a copy when we asked you in March 2016. Our Annual report is also available in English and French on our website (www.transcanada.com), or you can request a copy from our Corporate Secretary.

DIRECTORS – see page 12

You will vote on electing 12 directors to the Board. The director profiles starting on page 13 give important information about each nominated director, including his or her background, experience and memberships on other public company boards he or she serves on. All of the nominated directors currently serve on our Board, and we have included their 2016 attendance, the value of TransCanada shares or deferred share units (DSUs) they currently hold (their **at-risk investment**) and their election results from the 2016 annual meeting. You can find more information about their at-risk investment on pages 62 and 63.

All directors are elected for a one-year term.

- | | | |
|-----------------------|--------------------------|---------------------------|
| 1. Kevin E. Benson | 5. S. Barry Jackson | 9. Indira Samarasekera |
| 2. Derek H. Burney | 6. John E. Lowe | 10. D. Michael G. Stewart |
| 3. Stéphan Crétier | 7. Paula Rosput Reynolds | 11. Siim A. Vanaselja |
| 4. Russell K. Girling | 8. Mary Pat Salomone | 12. Richard E. Waugh |

The Board recommends you vote **for** the nominated directors:

RESOLVE to elect the directors listed in TransCanada's Management information circular dated February 28, 2017 to hold office until the next annual meeting of shareholders or until their successors are earlier elected or appointed.

AUDITORS

You will vote on appointing the auditors. The auditors will hold office until the close of our next annual meeting of shareholders.

The Board recommends that KPMG LLP, Chartered Professional Accountants (KPMG) be appointed as auditors. Representatives of KPMG will attend the meeting, have an opportunity to make a statement and respond to any questions.

KPMG has been our external auditors since 1956, and have confirmed they are **independent** with respect to TransCanada within the meaning of the relevant rules and related interpretations prescribed by the relevant professional bodies in Canada and applicable legal requirements.

About quorum

We must have a **quorum** for the meeting to proceed.

Quorum constitutes two people present, in person, at the meeting, who are entitled to vote at the meeting and represent at least 25 per cent of the issued and outstanding TransCanada shares. The two people are entitled to vote in their own right, by proxy, or as a duly authorized representative of a shareholder.

The table below shows the services KPMG provided during the last two fiscal years and the fees we paid them:

(\$ millions)	2016	2015
Audit fees	8.2	7.8
<ul style="list-style-type: none"> audit of the annual consolidated financial statements services related to statutory and regulatory filings or engagements review of interim consolidated financial statements and information contained in various prospectuses and other securities offering documents 		
Audit-related fees	0.1	0.2
<ul style="list-style-type: none"> services related to the audit of the financial statements of certain TransCanada post-retirement and post-employment plans, and pipeline abandonment trusts 		
Tax fees	0.6	0.5
<ul style="list-style-type: none"> Canadian and international tax planning and tax compliance matters, including the review of income tax returns and other tax filings 		
All other fees	–	–
Total fees	8.9	8.5

Note: The tax fees principally related to fees incurred on account of compliance matters.

You will also vote on authorizing the directors to set the auditors' compensation.

The Board recommends you vote **for** appointing KPMG as our auditors to hold office until the close of our next annual meeting of shareholders:

RESOLVE to appoint KPMG LLP, Chartered Professional Accountants, as auditors of TransCanada until the close of our next annual meeting of shareholders, and authorize the directors to fix their remuneration.

ADVISORY VOTE ON OUR APPROACH TO EXECUTIVE COMPENSATION

You will have an opportunity to have a say on pay by participating in the advisory vote on our approach to executive compensation. The Board believes the vote is beneficial because it holds directors accountable to shareholders for their decisions on executive compensation and provides valuable feedback.

While the vote is non-binding, the Board will take the results into consideration when it considers compensation policies, procedures and decisions in the future. We will disclose the results of the advisory vote in our report on voting results for the meeting, which will be posted on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Since 2010, we have held annual say on pay votes at our annual shareholder meetings. Over the last three years, these advisory votes were approved by 94.28 per cent in 2014, 97.10 per cent in 2015, and 97.47 per cent in 2016. The voting results confirm that a significant majority of shareholders have accepted our approach to executive compensation.

The Board recommends you vote **for** our approach to executive compensation:

RESOLVE on an advisory basis, without diminishing the role and responsibilities of TransCanada's Board of Directors, that the shareholders accept the approach to executive compensation disclosed in TransCanada's Management information circular dated February 28, 2017.

OTHER BUSINESS

We did not receive any shareholder proposals for the meeting. The Board and management are not aware of any other items to be properly brought before the meeting.

THE NOMINATED DIRECTORS

Our articles currently state that the Board must have a minimum of eight and a maximum of 15 directors. The Board has determined that 12 directors will be elected this year.

The Board believes this size is appropriate based on the scope of our business, the skills and experience of the nominated directors and the four standing committees, and to achieve effective decision-making. It believes that all of the nominated directors are well qualified to serve on the Board.

Mr. Crétier, who was appointed to the Board of Directors in February 2017, is being nominated for the first time. Mr. Crétier brings extensive skills and experience in leadership, strategic insight, and business acumen to the Board.

Each nominated director has expressed his or her willingness to serve on our Board until our next annual meeting of shareholders. If elected, they will also serve on the Board of TransCanada PipeLines Limited (TCPL), our main operating subsidiary.

11 of the 12 nominated directors (92 per cent) are *independent* within the meaning of Canadian and applicable U.S. securities law, regulation and policy, and the rules of the Toronto Stock Exchange (TSX) and New York Stock Exchange (NYSE), the two stock exchanges TransCanada shares are listed on. The only exception is Russell K. Girling because of his role as President and Chief Executive Officer (CEO).

The profiles on the following pages show each director's holdings in TransCanada shares at February 23, 2016, and as of the date of this circular. The Deferred Share Units (DSUs) are calculated on the basis of meeting and retainer fees paid in 2016 and dividend equivalents credited up to January 29, 2016 and January 31, 2017. They also indicate the year he or she joined the Board and has continually served as a director of TransCanada (or TCPL, prior to 2003 when it became a wholly-owned subsidiary of TransCanada). All of the nominated directors are Canadian residents, except for Mr. Lowe, Ms. Reynolds and Ms. Salomone, who are U.S. residents, and Mr. Crétier, who is a resident of the United Arab Emirates.

We have share ownership requirements for our directors and executives to align their interests with those of our shareholders.


As of February 28, 2017, all of our directors, except for three, meet the requirements. The following directors have five years from their appointment date to meet the requirements (see page 58 for more information):

Director	Date appointed	Share ownership date
Mr. Crétier	February 17, 2017	February 17, 2022
Ms. Salomone	February 12, 2013	February 12, 2018
Dr. Samarasekera	April 29, 2016	April 29, 2021

Ms. Salomone met the share ownership requirements at December 31, 2016. Director compensation was transitioned to a flat fee retainer, in lieu of meeting fees on January 1, 2017, and as a result, the share ownership requirement increased from \$720,000 to \$940,000.

Mr. Girling meets the share ownership requirements for the CEO (see page 77 for details).

The at-risk investment reflects the total market value of the director's TransCanada shares and DSUs based on the closing share price on the TSX of \$61.06 on February 28, 2017. See *At-risk investment* on pages 62 and 63 for more information.

	Kevin E. Benson		
	AGE 70, CALGARY, AB, CANADA DIRECTOR SINCE 2005		
	Independent		
	Skills and experience	<ul style="list-style-type: none"> • Accounting & finance • Governance • Government/regulatory • Management/leadership • Operations • Risk management 	
At-risk investment		\$4,970,467	

Mr. Benson is a corporate director. He was President and Chief Executive Officer of Laidlaw International, Inc. from June 2003 to October 2007, and Laidlaw, Inc. from September 2002 to June 2003. Mr. Benson served as President and Chief Executive Officer of The Insurance Corporation of British Columbia from December 2001 until September 2002. He was also a director of the Calgary Airport Authority from January 2010 to December 2013.

In February 2015, Mr. Benson became a director of Winter Sport Institute (non-profit). Mr. Benson is a Chartered Accountant (South Africa) and was a member of the South African Society of Chartered Accountants.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Audit committee	5/5	100%	
Governance committee	3/3	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	375,803,538	(99.55%)	1,699,271 (0.45%)
2015	338,385,874	(98.34%)	5,726,837 (1.66%)
2014	340,352,665	(99.80%)	667,571 (0.20%)
Other public company boards	Stock exchange		Board committees
—	—		—
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	13,000	13,000	yes
DSUs	68,403	61,866	



Derek H. Burney, O.C.

AGE 77, OTTAWA, ON, CANADA | DIRECTOR SINCE 2005

Independent

Skills and experience	• Energy/utilities	• International markets
	• Governance	• Management/leadership
	• Government/regulatory	

At-risk investment \$4,621,754

Mr. Burney is a senior strategic advisor at Norton Rose Fulbright (law firm). He is the Chairman of GardaWorld's International Advisory Board (risk management and security services) which position he has held since April 2008. He also became a member of the Paradigm Capital Inc. Advisory Board (investment dealer) in May 2011 and a member of The Ottawa Hospital Board (Governor) in November 2011.


Mr. Burney served as President and Chief Executive Officer of CAE Inc. from October 1999 to August 2004. Prior to that, he was Chairman and Chief Executive Officer of Bell Canada International Inc. from 1993 to 1999. He also served as lead director at Shell Canada Limited from April 2001 to May 2007.

Mr. Burney held various positions with the Canadian Foreign Service, including serving from 1989 to 1993 as Canada's Ambassador to the United States. From 1987 to 1989, he was Chief of Staff to the Prime Minister and was directly involved in the negotiation of the Canada-U.S. Free Trade Agreement. In 1992, Mr. Burney was awarded the Public Service of Canada's Outstanding Achievement Award and, in 1993, he was named an Officer of the Order of Canada.

Mr. Burney is Chancellor of Lakehead University. He was conferred Honorary Doctor of Laws Degrees from Lakehead University, Queen's University, Wilfrid Laurier University, Carleton University and University of Windsor. He also holds an Honours Bachelor of Arts and Master of Arts from Queen's University.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	(100%)	
Audit committee	5/5	(100%)	
Governance committee (Chair)	3/3	(100%)	
Annual general meeting voting results	Votes withheld		
2016	375,210,087	(99.39%)	2,292,864 (0.61%)
2015	335,490,909	(97.49%)	8,621,171 (2.51%)
2014	340,086,044	(99.73%)	934,222 (0.27%)
Other public company boards	Stock exchange	Board committees	
–	–	–	
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	12,910	12,318	yes
DSUs	62,782	56,230	

Mr. Burney was a director of Canwest Global Communications Corp. (Canwest) from April 2005 to October 2010, and served as Chair from August 2006 to October 2010. Canwest voluntarily entered into the *Companies' Creditors Arrangement Act* (CCAA) and obtained an Order from the Ontario Superior Court of Justice (Commercial Division) to start proceedings on October 6, 2009. Although no cease trade orders were issued, Canwest shares were de-listed by the TSX after the filing and started trading on the TSX Venture Exchange. Canwest emerged from CCAA protection, and Postmedia Network acquired its newspaper business on July 13, 2010 while Shaw Communications Inc. acquired its broadcast media business on October 27, 2010. Mr. Burney ceased to be a director of Canwest on October 27, 2010.

	Stéphan Crétier		
	AGE 53, DUBAI, UNITED ARAB EMIRATES DIRECTOR SINCE 2017		
	Independent		
	Skills and experience	<ul style="list-style-type: none"> • Accounting & finance • Governance • Government/regulatory • International markets • Management/leadership • Operations • Risk management 	
	At-risk investment	\$0	

Mr. Crétier is the Chairman, President and Chief Executive Officer of Garda World Security Corporation (Garda World) (private security services). He is also a director of a number of Garda World's direct and indirect subsidiaries.

Mr. Crétier previously served as a director of ORTHOsoft Inc. (formerly ORTHOsoft Holdings Inc.) (medical software technology) from August 2004 to November 2004, a director of BioEnvelop Technologies Corp. (manufacturing) from 2001 to 2003 and as a director, and President and Chief Executive Officer of Rafale Capital Corp. (manufacturing) from 1999 to 2001.

He plays an active role as a board member of several organizations, including the Montreal Economic Institute, a leading free market think-tank, and the Ligue Internationale des Sociétés de Surveillance. He also serves on the Board of Trustees of the Hirshhorn Museum, a Smithsonian Institution in Washington D.C.

In 2007, Mr. Crétier was honored by the Canadian Cancer Society for his exceptional contribution to its mission and in 1998 he was named Young Entrepreneur of the Year by the Quebec Young Chamber of Commerce.

Mr. Crétier holds a Masters of Business Administration degree from the University of California (Pacific).

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	—	—	
Audit committee	—	—	
Health, Safety & Environment committee	—	—	
Annual general meeting voting results	Votes withheld		
2016	—	—	—
2015	—	—	—
2014	—	—	—
Other public company boards	Stock exchange		Board committees
—	—	—	—
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	—	—	Mr. Crétier has until February 17, 2022 to meet the requirements.
DSUs	—	—	

Mr. Crétier joined the Board of Directors on February 17, 2017.



Russell K. Girling

AGE 54, CALGARY, AB, CANADA | CHIEF EXECUTIVE OFFICER | DIRECTOR SINCE 2010

Not Independent (President and Chief Executive Officer of TransCanada)

At-risk investment \$12,718,370

Mr. Girling has been the President and Chief Executive Officer (CEO) of TransCanada and TCPL since July 1, 2010. He has led TransCanada Corporation through a period of unprecedented growth, including the development of its Liquids Pipelines business, expansion of its power generation portfolio and the successful US\$13 billion acquisition of Columbia Pipeline Group, Inc. in July 2016.

Prior to becoming CEO, Mr. Girling was Chief Operating Officer, responsible for overseeing TransCanada's pipelines and energy businesses, corporate development activities and strategies, operations and major projects and corporate services. Mr. Girling has also served as President, Pipelines, Executive Vice-President, Corporate Development, Chief Financial Officer and Executive Vice-President, Power.


Prior to joining TransCanada in 1994, Mr. Girling held several marketing and management positions at Suncor Inc., Northridge Petroleum Marketing and Dome Petroleum.

Mr. Girling is currently a director of Agrium Inc., the American Petroleum Institute and the Business Council of Canada and is a member of the U.S. National Petroleum Council and U.S. Business Roundtable. Mr. Girling is the former Chairman of the Interstate Natural Gas Association of America, former Chairman of the Natural Gas Council and former director of the Canadian Energy Pipeline Association. He has also served as Chairman and CEO of TC PipeLines GP, Inc. (general partner of TC PipeLines, LP), Chairman of TransCanada Power, L.P. and director of Bruce Power Inc.

Mr. Girling has a Bachelor of Commerce degree and a Master of Business Administration in Finance from the University of Calgary.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	376,856,536	(99.83%)	646,477 (0.17%)
2015	338,970,732	(98.51%)	5,141,980 (1.49%)
2014	340,122,398	(99.74%)	897,869 (0.26%)
Other public company boards	Stock exchange		Board committees
Agrium Inc. (agricultural)	TSX, NYSE		Audit Corporate Governance
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	208,293	148,582	yes (for CEO)
DSUs	—	—	

As President and CEO of TransCanada, Mr. Girling is not a member of any of our committees, but is invited to attend committee meetings as required.

	S. Barry Jackson		
	AGE 64, CALGARY, AB, CANADA BOARD CHAIR DIRECTOR SINCE 2002		
	Independent		
	Skills and experience	<ul style="list-style-type: none"> • Energy/utilities • Engineering • Governance • Health, safety & environment • Management/leadership • Oil & gas/utilities • Operations 	
	At-risk investment	\$11,343,238	

Mr. Jackson is a corporate director. He is currently the Chair of the Board of TransCanada and is a director of WestJet Airlines Ltd. (airline) and Laricina Energy Ltd. (oil and gas, exploration and production).

Mr Jackson has previously served as director of Nexen Inc. (oil and gas, exploration and production) from 2001 to June 2013, serving as Chair from 2012, a director of Cordero Energy Inc. from 2005 to 2008, the Chair of Resolute Energy Inc. from 2002 to 2005, the Chair of Deer Creek Energy Limited from 2001 to 2005, and director of ENMAX Corporation from 1999 to 2002, Westcoast Energy Inc. from 2001 to 2002, and Gulf Canada Resources Ltd. from 2000 to 2001. He has also been the President and Chief Executive Officer of Crestar Energy Inc. from 1993 to 2000 and was the Chair of the Canadian Association of Petroleum Producers in 1997. Prior to that, he held a number of senior management positions in the oil and gas industry since 1974.

Mr. Jackson has a Bachelor of Science in Engineering from the University of Calgary.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors (Chair)	15/15	100%	
Governance committee	3/3	100%	
Human Resources committee	5/5	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	368,817,294	(97.70%)	8,685,719 (2.30%)
2015	338,454,635	(98.36%)	5,658,076 (1.64%)
2014	339,899,220	(99.67%)	1,121,029 (0.33%)
Other public company boards	Stock exchange		Board committees
WestJet Airlines Ltd. (airline)	TSX		People and Compensation Safety, Health and Environment (Chair)
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	39,000	39,000	yes
DSUs	146,772	132,848	

Laricina Energy (Laricina), a private company, voluntarily entered into the *Companies' Creditors Arrangement Act* (CCAA) and obtained an order from the Court of Queen's Bench of Alberta, Judicial Centre of Calgary for creditor protection and stay of proceedings effective March 26, 2015. A final court order was granted on January 28, 2016, allowing Laricina to exit from protection under the CCAA and concluding the stay of proceedings against Laricina and subsidiaries.



John E. Lowe

AGE 58, HOUSTON, TX, U.S.A. | DIRECTOR SINCE 2015

Independent

Skills and experience

- Accounting & finance
- Energy/utilities
- Government/regulatory
- Health, safety & environment
- International markets
- Management/leadership
- Oil & gas/utilities
- Operations
- Risk management

At-risk investment \$1,401,449

Mr. Lowe has been the non-executive Chairman of Apache Corporation's (oil and gas) board of directors since May 2, 2015, having previously joined Apache's board in July 2013. He also currently serves on the board of directors for Phillips 66 (energy infrastructure) and has been the Senior Executive Adviser at Tudor Pickering, Holt & Co. LLC (energy investment and merchant banking) since September 2012.

Mr. Lowe has previously served as a director of Agrium Inc. (agriculture) from May 2010 to August 2015, DCP Midstream LLC (energy infrastructure) and its wholly owned subsidiary, DCP Midstream GP, LLC, the general partner of DCP Midstream Partners, LP from October 2008 to April 2012 and Chevron Phillips Chemical Co. LLC (global petrochemicals) from October 2008 to January 2011. He has also held various executive and management positions with ConocoPhillips (oil and gas, exploration and production) for more than 25 years, including Assistant to the Chief Executive Officer of ConocoPhillips, Executive Vice President of Exploration & Production and Executive Vice President of Commercial.

Mr. Lowe is a member of the Board of Trustees for the Houston Museum of Natural Science, is on the Katy ISD Education Foundation Board and is on the Board of Advisors of Kelce School at Pittsburg State University. He has also previously served on the Texas Children's Hospital West Campus Advisory Council and is a former director of the National Association of Manufacturers.

Mr. Lowe holds a Bachelor of Science degree in Finance and Accounting from Pittsburg State University in Pittsburg, Kansas and is a Certified Public Accountant (inactive).

TransCanada Board/committees	2016 meeting attendance	
Board of Directors	15/15	100%
Audit committee	5/5	100%
Health, Safety & Environment committee	4/4	100%
Annual general meeting voting results	Votes in favour	Votes withheld
2016	376,651,391 (99.77%)	851,418 (0.23%)
2015	—	—
2014	—	—
Other public company boards	Stock exchange	Board committees
Apache Corporation (oil and gas)	NYSE	Non-executive Chairman
Phillips 66 Company (energy infrastructure)	NYSE	Public Policy Audit
TransCanada securities held	2017	2016
Shares	15,000	15,000
DSUs	7,952	2,271
		Meets share ownership requirements
		yes



Paula Rosput Reynolds

AGE 60, SEATTLE, WA, U.S.A. | DIRECTOR SINCE 2011

Independent

Skills and experience	• Accounting & finance	• Management/leadership
	• Energy/utilities	• Oil & gas/utilities
	• Governance	• Risk management

At-risk investment \$1,686,050

Ms. Reynolds has been the President and Chief Executive Officer of PreferWest, LLC (business advisory group) since October 2009. She serves as a director CBRE Group, Inc. (commercial real estate), BP p.l.c. (oil and gas), BAE Systems plc. (aerospace, defense, information security) and Siluria Technologies Inc. (natural gas).

Ms. Reynolds previously served as a director at Delta Airlines Inc. from August 2004 to June 2015 and Anadarko Petroleum Corporation (oil and gas, exploration and production) from August 2007 to May 2014. She also served as Vice-Chair and Chief Restructuring Officer of American International Group Inc. (insurance and financial services) from October 2008 to September 2009 as part of the team that was appointed during the global financial crisis. Prior to that appointment, she served as President and Chief Executive Officer of Safeco Corporation (insurance) until its acquisition by Liberty Mutual Group in September 2008. She was also Chair, President and Chief Executive Officer of AGL Resources Inc. from August 2000 to January 2006.

Ms. Reynolds has held the roles of Chief Executive Officer, President and Chief Operating Officer of Atlanta Gas Light Company (energy infrastructure), a wholly-owned subsidiary of AGL Resources Inc. She also previously served as President and Chief Executive Officer of Duke North America (energy infrastructure), a subsidiary of Duke Energy Corporation, and President of PanEnergy Power Services Inc. (energy infrastructure). Prior to that she was Senior Vice-President of Pacific Gas Transmission Company (natural gas pipeline), a predecessor company of Gas Transmission Northwest LLC, a subsidiary of TransCanada.

Ms. Reynolds currently serves on the board for the Fred Hutchinson Cancer Research Center and was, until June 2015, on the board for KCTS-9 public television in Seattle. She has a Bachelor of Arts in Economics, with honours, from Wellesley College.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Health, Safety & Environment committee	4/4	100%	
Human Resources committee (Chair)	5/5	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	374,046,880 (99.08%)		3,456,071 (0.92%)
2015	338,415,097 (98.34%)		5,696,983 (1.66%)
2014	339,076,515 (99.43%)		1,943,752 (0.57%)
Other public company boards	Stock exchange		Board committees
BAE Systems plc (aerospace, defence, information security)	London Stock Exchange (LSE) American Depositary Receipt (ADR) NYSE		Audit Remuneration (Chair)
BP p.l.c. (oil and gas)	LSE ADR NYSE Frankfurt		Audit Chairman's Committee
CBRE Group, Inc. (commercial real estate)	NYSE		–
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	6,000	6,000	yes
DSUs	21,613	16,651	



Mary Pat Salomone

AGE 56, NAPLES, FL, U.S.A. | DIRECTOR SINCE 2013

Independent

Skills and experience	• Energy/utilities	• Health, safety & environment	• Operations
	• Engineering	• International markets	
	• Governance	• Management/leadership	

At-risk investment \$879,691

Ms. Salomone is a corporate director. She currently serves on the board of directors of Herc Rentals (equipment rental) and Intertape Polymer Group (manufacturing). She also serves as a trustee of the Youngstown State University Foundation.

Ms. Salomone was the Senior Vice-President and Chief Operating Officer of The Babcock & Wilcox Company (B&W) (energy infrastructure) from January 2010 to June 30, 2013. Prior to that, she served as Manager of Business Development from 2009 to 2010 and Manager of Strategic Acquisitions from 2008 to 2009 for Babcock & Wilcox Nuclear Operations Group, Inc. From 1998 through December 2007, Ms. Salomone served as an officer of Marine Mechanical Corporation, which B&W acquired in 2007, including her term as President and Chief Executive Officer from 2001 through 2007.

Ms. Salomone previously served on the board of directors of United States Enrichment Corporation (basic materials, nuclear) from December 2011 to October 2012 and on the Naval Submarine League from 2007 to 2013. She was formerly a member of the Governor's Workforce Policy Advisory Board in Ohio and the Ohio Employee Ownership Center, and served on the board of Cleveland's Manufacturing Advocacy & Growth Network.

Ms. Salomone has a Bachelor of Engineering in Civil Engineering from Youngstown State University and a Master of Business Administration from Baldwin Wallace College. She completed the Advanced Management Program at Duke University's Fuqua School of Business in 2011.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Audit committee	2/2	100%	
Health, Safety & Environment committee	4/4	100%	
Human Resources Committee	3/3	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	376,547,744	(99.75%)	955,268 (0.25%)
2015	340,476,224	(98.94%)	3,636,487 (1.06%)
2014	339,022,297	(99.41%)	1,997,970 (0.59%)
Other public company boards	Stock exchange		Board committees
Herc Rentals (rental equipment)	NYSE		Compensation Nominating & Governance
Intertape Polymer Group (manufacturing)	TSX		Audit Compensation
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	3,000	2,000	Ms Salomone has until February 12, 2018 to meet the requirements
DSUs	11,407	8,512	

Ms. Salomone was a director of Crucible Materials Corp. (Crucible) from May 2008 to May 1, 2009. On May 6, 2009, Crucible and one of its affiliates filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the District of Delaware (the Bankruptcy Court). On August 26, 2010, the Bankruptcy Court entered an Order confirming Crucible's Second Amended Chapter 11 Plan of Liquidation.



Indira V. Samarasekera

AGE 64, VANCOUVER, BC, CANADA | DIRECTOR SINCE 2016

Independent

Skills and experience

- Engineering
- Governance
- Government/regulatory
- Management/leadership

At-risk investment \$161,931

Dr. Samarasekera is currently a senior advisor for Bennett Jones LLP (law firm) and serves on the board of the Bank of Nova Scotia (Scotiabank) (chartered bank), Magna International (manufacturing, automotive parts), Asia-Pacific Foundation, the Rideau Hall Foundation, the Perimeter Institute of Theoretical Physics and the selection panel for Canada's outstanding chief executive officer of the year. She is also a member of the TriLateral Commission, a federal member on the Independent Advisory Board for Senate Appointments and is a fellow of the Royal Society of Canada.

Dr. Samarasekera is internationally recognized as one of Canada's leading metallurgical engineers for her groundbreaking work on steel process engineering and she was the first incumbent of the Dofasco Chair in Advanced Steel Processing at the University of British Columbia. From 2005 to 2015, she served as President of the University of Alberta. Prior to that, she was elected to the National Academy of Engineering in the U.S. She has also served as the chair of the Worldwide Universities Network and has served on several boards and committees including the Prime Minister's Advisory Committee for Renewal of the Public Service, a Presidential Visiting Committee at the Massachusetts Institute of Technology and Canada's Science, Technology, Innovation Council.

Dr. Samarasekera has received honorary degrees from the Universities of Alberta, British Columbia, Toronto, Waterloo, Montreal and Western in Canada, and Queen's University in Belfast, Ireland. She received the Peter Lougheed Leadership Award from the Public Policy Forum in Canada in 2012 and was awarded the Order of Canada in 2002. Dr. Samarasekera was also granted a PhD in metallurgical engineering from the University of British Columbia in 1980 and, as a Hays Fulbright Scholar, she earned an MSc from the University of California in 1976.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	7/7	100%	
Audit	3/3	100%	
Governance	1/1	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	376,140,498 (99.64%)		1,362,311 (0.36%)
2015	–		–
2014	–		–
Other public company boards	Stock exchange		Board committees
Bank of Nova Scotia (chartered bank)	NYSE, TSX		Corporate Governance Human Resources
Magna International Inc. (manufacturing, automotive parts)	NYSE, TSX		Corporate Governance, Compensation and Nominating
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	–	–	Dr. Samarasekera has until April 29, 2021 to meet the requirements
DSUs	2,652	–	

Dr. Samarasekera joined the Board of Directors on April 29, 2016.



D. Michael G. Stewart

AGE 65, CALGARY, AB, CANADA | DIRECTOR SINCE 2006

Independent

Skills and experience	• Energy/utilities	• Management/leadership	• Risk management
	• Health, safety & environment	• Oil & gas/utilities	
	• International markets	• Operations	

At-risk investment	\$2,905,174
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Mr. Stewart is a corporate director. He serves as a director of Pengrowth Energy Corporation (oil and gas, exploration and production) and Canadian Energy Services and Technology Corp. (oilfield services). He was a director of Northpoint Resources Ltd. (oil and gas, exploration and production) from July 2013 to February 2015, a director of C&C Energia Ltd. (oil and gas) from May 2010 to December 2012, a director of Orleans Energy Ltd. (oil and gas) from October 2008 to December 2010, a director of Pengrowth Corporation (administrator of Pengrowth Energy Trust) from October 2006 to December 2010, a director of Canadian Energy Services Inc. (general partner of Canadian Energy Services L.P.) from January 2006 to December 2009, Chairman and trustee of Esprit Energy Trust from August 2004 to October 2006, and a director of Creststreet Power & Income General Partner Limited (general partner of Creststreet Power & Income Fund L.P.) from December 2003 to February 2006. Mr Stewart held a number of senior executive positions with Westcoast Energy Inc. from September 1993 to March 2002, including Executive Vice-President, Business Development. He has been active in the Canadian energy industry for over 40 years. He is a member of the Institute of Corporate Directors and the Association of Professional Engineers, Geologists and Geophysicists of Alberta (non-practicing).

Mr. Stewart holds a Bachelor of Science (Geological Sciences) with First Class Honours from Queen's University.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Audit committee	5/5	100%	
Health, Safety & Environment committee (Chair)	4/4	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	376,770,778	(99.81%)	732,173 (0.19%)
2015	340,638,900	(98.99%)	3,473,810 (1.01%)
2014	340,433,367	(99.83%)	586,881 (0.17%)
Other public company boards	Stock exchange		Board committees
Canadian Energy Services & Technology Corp.	TSX		Audit Governance (Chair)
Pengrowth Energy Corporation (oil and gas, exploration and production)	TSX, NYSE		Compensation Corporate Governance and Nominating (Chair)
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	16,651	16,008	yes
DSUs	30,928	27,882	



Siim A. Vanaselja

AGE 60, WESTMOUNT, QC, CANADA | INCOMING BOARD CHAIR | DIRECTOR SINCE 2014

Independent

Skills and experience

- Accounting & finance
- Governance
- International markets
- Management/leadership
- Risk management

At-risk investment

\$1,509,342

Mr. Vanaselja is a corporate director. He currently serves on the boards of Great-West Lifeco Inc. (financial services) and Maple Leaf Sports and Entertainment Ltd. (sports, property management).

Mr. Vanaselja was the Executive Vice-President and Chief Financial Officer of BCE Inc. and Bell Canada (telecommunications and media) from January 2001 to June 2015. Prior to joining BCE Inc., he was a partner at the accounting firm KPMG Canada in Toronto.

Mr. Vanaselja previously served as a member of the Conference Board of Canada's National Council of Financial Executives, the Corporate Executive Board's working council for Chief Financial Officers and Moody's Council of Chief Financial Officers. During the period of the 2008 global financial crisis, he was a member of the Minister of Finance's Special Advisory Committee to address the continued functioning of financial and credit markets in Canada.

He is a member of the Institute of Corporate Directors and the Chartered Professional Accountants of Ontario. He holds an Honours Bachelor of Business degree from the Schulich School of Business. His community involvement has included work with Big Brothers Big Sisters of Toronto, St. Mary's Hospital, the Heart and Stroke Foundation of Québec and the annual Walk for Kids Help Phone.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Audit committee (Chair)	5/5	100%	
Governance committee	3/3	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	376,082,537	(99.62%)	1,420,476 (0.38%)
2015	339,990,729	(98.80%)	4,121,981 (1.20%)
2014	339,898,687	(99.67%)	1,121,579 (0.33%)
Other public company boards	Stock exchange		Board committees
Great-West Lifeco Inc. (financial services)	TSX		Audit Risk Investment Executive
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	12,000	12,000	yes
DSUs	12,719	7,898	



Richard (Rick) E. Waugh

AGE 69, CALGARY, AB, CANADA | DIRECTOR SINCE 2012

Independent

Skills and experience	• Accounting & finance	• Management/leadership
	• Governance	• Risk management
	• International markets	

At-risk investment	\$3,252,239
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Mr. Waugh is a corporate director. He also serves as an advisor for Acasta Enterprises Inc. (asset management/investment), in addition to serving on the board of directors of several non-profit corporations and affiliations. Mr. Waugh was President and Chief Executive Officer of Scotiabank (chartered bank) until November 2013, and then served as Deputy Chairman and director of Scotiabank until January 2014. Mr. Waugh also served as a director of Catalyst Inc. (non-profit) until November 2013 and Chair of Catalyst Canada Advisory Board until October 2013.

Mr. Waugh holds a Bachelor of Commerce (Honours) degree from the University of Manitoba and a Master of Business Administration from York University. He is a Fellow of the Institute of Canadian Bankers and has been awarded Honorary Doctor of Laws degrees from York University, the University of Manitoba and Assumption University. He was awarded Officer of the Order of Canada in 2013.

TransCanada Board/committees	2016 meeting attendance		
Board of Directors	15/15	100%	
Governance committee	3/3	100%	
Human Resources committee	5/5	100%	
Annual general meeting voting results	Votes in favour		Votes withheld
2016	375,332,926	(99.43%)	2,170,087 (0.57%)
2015	340,511,473	(98.95%)	3,601,053 (1.05%)
2014	340,375,952	(99.81%)	644,327 (0.19%)
Other public company boards	Stock exchange		Board committees
–	–		–
TransCanada securities held	2017	2016	Meets share ownership requirements
Shares	29,730	29,730	yes
DSUs	23,533	18,557	

SERVING TOGETHER ON OTHER BOARDS

While the Board does not prohibit directors having common membership on other boards, the Board reviews potential common membership on other boards as they arise to determine whether it affects the ability of those directors to exercise independent judgment as members of TransCanada's Board.

Mr. Burney serves as Chairman of GardaWorld's International Advisory Board (GardaWorld Advisory Board). Mr. Crétier is the Chair, and President and CEO of Garda World Security Corporation (Garda World), and several of its subsidiaries. While Mr. Burney and Mr. Crétier do not serve together on a board, Garda World and GardaWorld Advisory Board are affiliated entities. The Board has determined that this affiliation does not affect the ability of either Mr. Burney or Mr. Crétier to exercise independent judgment as members of TransCanada's Board.

We also place limits on the number of boards that our directors may serve on. See **Governance – Serving on other boards**.

MEETING ATTENDANCE

We expect our directors to demonstrate a strong commitment to their roles and responsibilities while serving on our Board. The table below shows the directors' 2016 attendance record, which was 100 per cent for all Board and committee meetings. The Board also held four strategic issues sessions and a strategic planning meeting over two days in 2016.

	Board committees										
	Board of directors		Audit		Governance		Health, Safety and Environment		Human Resources		Overall attendance
	#	%	#	%	#	%	#	%	#	%	%
Kevin E. Benson	15/15	100	5/5	100	3/3	100	–	–	–	–	100
Derek H. Burney	15/15	100	5/5	100	3/3	100	–	–	–	–	100
Russell K. Girling	15/15	100	–	–	3/3	100	–	–	5/5	100	100
S. Barry Jackson	15/15	100	–	–	3/3	100	–	–	5/5	100	100
John E. Lowe	15/15	100	5/5	100	–	–	4/4	100	–	–	100
Paula Rospud Reynolds	15/15	100	–	–	–	–	4/4	100	5/5	100	100
John Richels	15/15	100	–	–	–	–	4/4	100	5/5	100	100
Mary Pat Salomone	15/15	100	2/2	100	–	–	4/4	100	3/3	100	100
Indira Samarasakera	7/7	100	3/3	100	1/1	100	–	–	–	–	100
D. Michael G. Stewart	15/15	100	5/5	100	–	–	4/4	100	–	–	100
Siim A. Vanaselja	15/15	100	5/5	100	3/3	100	–	–	–	–	100
Richard E. Waugh	15/15	100	–	–	3/3	100	–	–	5/5	100	100

Notes

- Eight of the 15 Board meetings were not regularly scheduled meetings.
- Mr. Girling is not a member of any committees, but is invited to attend committee meetings as required.
- Ms. Salomone was a member of the Audit committee until April 29, 2016.
- Ms. Salomone became a member of the Human Resources Committee on April 29, 2016.
- On April 29, 2016, Dr. Samarasekera was appointed as a director and to the Audit and Governance committees.

Governance

We believe that strong governance improves corporate performance and benefits all stakeholders.

This section discusses our approach to governance and describes our Board and how it works.

About our governance practices

Our Board and management are committed to the highest standards of ethical conduct and corporate governance.

TransCanada is a public company listed on the TSX and the NYSE, and we recognize and respect rules and regulations in both Canada and the U.S.

Our corporate governance practices comply with the Canadian governance guidelines, which include the governance rules of the TSX and Canadian Securities Administrators (CSA):

- National Instrument 52-110, *Audit Committees*,
- National Policy 58-201, *Corporate Governance Guidelines*, and
- National Instrument 58-101, *Disclosure of Corporate Governance Practice* (NI 58-101).

We also comply with the governance listing standards of the NYSE and the governance rules of the U.S. Securities and Exchange Commission (SEC) that apply, in each case, to foreign private issuers.

Our governance practices comply with the NYSE standards for U.S. companies in all significant respects, except as summarized on our website (www.transcanada.com). As a non-U.S. company, we are not required to comply with most of the governance listing standards of the NYSE. As a foreign private issuer, however, we must disclose how our governance practices differ from those followed by U.S. companies that are subject to the NYSE standards.

We benchmark our policies and procedures against major North American companies to assess our standards and we adopt best practices as appropriate. Some of our best practices are derived from the NYSE rules and comply with applicable rules adopted by the SEC to meet the requirements of the *Sarbanes-Oxley Act of 2002* and the *Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank)*.

BOARD CHARACTERISTICS

Our Board and its members exemplify strong principles of corporate governance:

- an independent, non-executive Chair
- an effective board size
- all directors except our CEO are independent
- knowledgeable and experienced directors who ensure that we promote ethical behaviour throughout TransCanada
- qualified directors who can make a meaningful contribution to the Board and the development of our strategy and business and oversight of our risk management processes
- significant share ownership requirements to align the directors’ interests with those of our shareholders, and
- annual assessments of Board, Chair, committee and director effectiveness.

Size and composition

TransCanada’s articles state that the Board must have between eight and 15 directors. The Board has determined that 12 directors will be elected this year at the annual meeting. The Board believes this size is appropriate based on the scope of our business, the skills and experience of the nominated directors and the four standing committees, and to achieve effective decision making. It believes that all of the nominated directors are well qualified to serve on the Board.

We believe our Board must consist of qualified and knowledgeable directors, and include directors with direct experience in the oil and gas, pipelines and power sectors.

WHERE TO FIND IT

> About our governance practices	26
Board characteristics	26
Governance philosophy	29
Role and responsibilities of the Board	31
Orientation and education	37
Board effectiveness and director assessment	39
Engagement	43
Communicating with the Board	43
Shareholder proposals	44
Board committees	45

Board diversity

We have been committed to a diverse Board since 1999, when our Corporate governance guidelines were revised to include a variety of diversity criteria, which bring a range of perspectives to the Board that are not limited to gender diversity.

While the Governance committee has not set a specific target for the number of women directors on our Board, the committee believes that a diverse board with a variety of perspectives enhances our decision-making and helps keep the Board informed and effective. We do not believe targets are an appropriate method of increasing diversity on the Board. Instead, we believe that a process-based method of reviewing directors on a variety of diversity factors (including gender) is more appropriate, particularly given the business environment in which TransCanada operates.

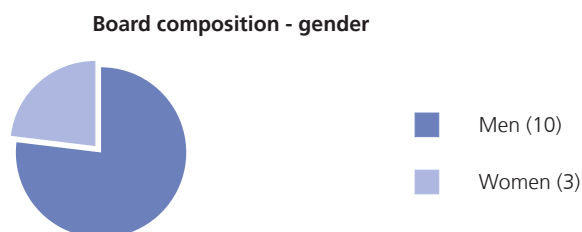
In order to achieve a diverse Board, the committee focuses on the process surrounding director nomination. Each year, the committee reviews the general and specific criteria applicable to candidates to be considered for nomination to the Board. These guidelines outline the criteria that the committee considers when evaluating potential director nominees. We have not adopted a written policy with respect to the identification and nomination of women directors because we believe that encompassing our diversity criteria in our written Corporate governance guidelines is more appropriate than a separate written policy.

Our Corporate governance guidelines provide that when choosing director nominees, the committee takes into account the diversity of backgrounds, skills and experience, and personal characteristics such as age, gender, and geographic residence among the directors along with the key common qualities required for effective Board participation. The committee regularly considers the current number of women on the Board when selecting director candidates by considering gender, in addition to other characteristics, as one of the factors.

The committee aims to maintain the composition of the Board in a way that provides the best mix of skills and experience to guide our strategy and oversee ongoing business operations. TransCanada does not have term limits for directors, but does have a retirement policy to encourage board renewal, as discussed in **Director tenure**, on page 42.

The committee ensures that the list of potential director candidates discussed includes a reasonable number of qualified women candidates, but ultimate decisions are made based on the qualifications of the candidates and the expertise needs of the Board.

We believe that this process is effective as 23 per cent of the Board is currently composed of women directors. After the annual meeting, if the nominated directors are all elected, 25 per cent of the Board will be comprised of women directors.



Independence

An independent board is a fundamental principle of governance. We believe that the majority of our directors must be **independent** in accordance with applicable Canadian legal requirements and guidelines, and consistent with the independence criteria of the regulations of the SEC and rules of the NYSE.

The Governance committee and the Board review the independence of each Board member and nominated director against these criteria once a year. The Governance Committee also reviews family relationships and associations with companies that have relationships with TransCanada when it reviews director independence.

The Board has determined that all of the nominated directors are independent, except for Mr. Girling because of his role as President and CEO. Other than Mr. Girling, none of the directors have a direct or indirect material relationship with TransCanada that could reasonably be expected to interfere with the exercise of his or her independent judgment.

Independent Chair

The Chair is appointed by the Board, and serves in a non-executive capacity. We have had separate Chair and CEO positions since our incorporation in 2003 and at our predecessor company since 1994. Mr. Jackson has served as the independent non-executive Chair since April 30, 2005.

In late 2016, we announced that Mr. Siim A. Vanaselja will be the next independent non-executive Chair of the Board, subject to his re-election at the 2017 annual meeting of shareholders. Mr. Vanaselja will succeed Mr. Jackson, who will retire as Chair of the Board at the close of the 2017 annual meeting of common shareholders. Mr. Jackson will continue to serve as a Board member, subject to his re-election at the 2017 annual meeting of shareholders.

Independent advice

The Board and each of its four standing committees can retain independent advisors to assist in carrying out their duties and responsibilities.

Serving on other boards

To ensure we do not have overboarding or interlocking relationships that would conflict with a director's independence or interfere with fulfilling their Board duties and responsibilities, we have the following policy:

- outside directors may not serve on more than four public company boards in total,
- the CEO may not serve on more than two public company boards in total, and
- Audit committee members may not serve on more than three audit committees in total.

Currently, none of our directors serves on more than four public company boards, the CEO serves on two public company boards (including TransCanada's), and none of our Audit committee members serves on more than two audit committees in total.

We discuss the time commitment and duties and responsibilities with every candidate so they have a full understanding of the role and our expectations of directors. The Governance committee monitors director relationships to ensure their business associations do not hinder their role as a TransCanada director or Board performance overall.

The Board believes that it is important for it to be composed of qualified and knowledgeable directors. As a result, due to the specialized nature of the energy infrastructure business, some of the nominated directors are associated with or sit on the boards of companies that ship natural gas or liquids through our pipeline systems. Transmission services on most of TransCanada's pipeline systems in Canada and the U.S. are subject to regulation and, accordingly, we generally cannot deny transportation services to a creditworthy shipper. As discussed in **Conflicts of interest**, the Governance committee monitors relationships among directors to ensure that business associations do not affect the Board's performance.

See the director profiles starting on page 13 for the other public company boards each nominated director serves on.

Independent of management

Our Corporate governance guidelines stipulate that the Board must meet at the end of each Board meeting, *in-camera*, without management present. In 2016, the independent directors met separately before and at the end of every regularly scheduled Board meeting.

Our Board has adopted the policy of holding in-camera sessions at each meeting of its committees without management. Members of management meet with the independent directors upon request.

GOVERNANCE PHILOSOPHY

We believe that effective corporate governance improves corporate performance and benefits all shareholders and that honesty and integrity are vital to ensuring good corporate governance.

The Board has formally adopted the Corporate governance guidelines recommended by the Governance committee. These guidelines address the structure and composition of the Board and its committees, and clarify the responsibilities of the Board and management.

Ethical business conduct

Our Code of business ethics (the Code) incorporates principles of good conduct and ethical and responsible behaviour to guide our decisions and actions and the way we conduct business.

The Code applies to all employees, officers and directors as well as contract workers of TransCanada and its wholly-owned subsidiaries and operated entities in countries where we conduct business. All employees (including executive officers) and directors must certify their compliance with the Code.

Any unusual behaviour or suspected violations of the Code must be reported immediately. Employees can report a concern to their supervisor, Corporate compliance, Internal audit, their Compliance coordinator, or to our Ethics help-line. The help-line allows anyone – employees, contractors, consultants, other stakeholders and the general public – to report a concern, confidentially and anonymously, about any perceived accounting irregularities, legal or ethical violations or other suspected breaches of the Code. The telephone number is published on our website and employee intranet, in other employee communications and in our Annual report. Our policy strictly prohibits reprisals or retaliation against anyone who files an ethics concern or complaint in good faith.

Internal audit handles most investigations, including any concerns about directors and senior management. Human resources professionals handle any concerns relating to human resource matters such as harassment.

The Audit committee monitors compliance with the Code and reports any significant violations to the Board. The committee follows formal procedures for receiving and reviewing complaints, determining a course of action and retaining the information on file. It also oversees the operation of the Ethics help-line as part of its responsibilities.

Any waiver of the Code for our executives and directors must be approved by the Board, or the appropriate committee. There were no material departures from the Code in 2016.

Effective July 1, 2016, TransCanada acquired Columbia Pipeline Group, Inc. (Columbia). Columbia's code of business ethics and compliance program was assessed and determined to be essentially equivalent to TransCanada's Code. Columbia employees will transition to compliance with TransCanada's Code during 2017.

The Code is posted on our website (www.transcanada.com).

Conflicts of interest

The Code covers potential conflicts of interest.

Serving on other boards

The Board considers whether directors serving on the boards of, or acting as officers or in another similar capacity for, other entities including public and private companies, Crown corporations and other state-owned entities, and non-profit organizations pose any potential conflict. The Board reviews these relationships annually to determine that they do not interfere with any of our director's ability to act in our best interests. If a director declares a material interest in any material contract or material transaction being considered at a meeting, the director is not present during the discussion and does not vote on the matter.

Our Code requires employees to receive consent before accepting a directorship with an entity that is not an affiliate. The CEO and executive vice-presidents (our executive leadership team) must receive the consent of the Governance committee. All other employees must receive the consent of the Corporate Secretary or her delegate.

Affiliates

The Board oversees relationships between TransCanada and any affiliates to avoid any potential conflicts of interest. This includes our relationship with TC PipeLines, LP, a master limited partnership listed on the NYSE.

Auditor independence

Pursuant to the Audit committee charter, the Audit committee reviews, approves and monitors adherence to our hiring policies for partners, employees and former partners and employees of our current and former external auditors to ensure auditor independence is maintained. The committee also has a pre-approval policy with respect to permitted non-audit services.

Our Annual information form (AIF) includes more information about the Audit committee, including the committee charter. The 2016 AIF is available on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Majority voting

Our majority voting policy applies to electing a new Board when the number of nominated directors is the same as the number of director positions available. If, prior to a meeting, a nominated director receives more "withheld" proxy votes than five per cent of the total votes cast by proxy, we will hold a vote by ballot for all directors. If a director does not receive a majority of "for" votes cast by ballot, the director must resign from the Board. The Board will accept the resignation if there are no exceptional circumstances. We expect the Board to announce its decision to either accept or reject the director's resignation in a press release within 90 days after the annual meeting, and include its reasons for rejecting the resignation, if applicable.

This policy does not apply if there is a proxy contest over the election of directors.

Share ownership

We have share ownership requirements for our directors and executives to align their interests with those of our shareholders. Ownership levels are significant, and directors and executives must meet the requirements within five years of assuming their position.

As of February 28, 2017, all of our directors who have served for at least five years meet the share ownership requirements, as do most of our directors who have served for fewer than five years. Mr. Crétier, Ms. Salomone and Dr. Samarasekera, each have five years from the date of their appointment to meet the requirements:

Director	Date appointed	Share ownership date
Mr. Crétier	February 17, 2017	February 17, 2022
Ms. Salomone	February 12, 2013	February 12, 2018
Dr. Samarasekera	April 29, 2016	April 29, 2021

Ms. Salomone met the share ownership requirements at December 31, 2016. Director compensation was transitioned to a flat fee retainer, in lieu of meeting fees on January 1, 2017, and as a result the share ownership requirement increased from \$720,000 to \$940,000.

See *Aligning the interests of directors and shareholders* on page 58 and *Aligning the interests of executives and shareholders* on page 77 for more information.

ROLE AND RESPONSIBILITIES OF THE BOARD

The Board's primary responsibilities are to foster TransCanada's long-term success, oversee our business and affairs and management, and to act honestly, in good faith and in the best interests of TransCanada.

The Board's main objective is to promote our best interests, to maximize long-term shareholder value and to enhance shareholder returns.

The Board has key duties and responsibilities, delegates some duties to its four standing committees, and discharges others to management for managing the day-to-day affairs of the business.

The Chair is responsible for ensuring that the Board is organized properly, functions effectively and meets its obligations and responsibilities. The Chair's role includes coordinating the affairs of the Board, working with management (primarily the CEO), and ensuring effective relations with Board members, shareholders, other stakeholders and the public.

Charters and position descriptions

The Board and each committee have adopted a charter that outlines its principal responsibilities.

The charters are reviewed every year to ensure that they reflect current developments in corporate governance and corporate best practices, and the Board approves any necessary changes.

The Board charter describes the:

- composition and organization of the Board
- duties and responsibilities for managing our affairs, and
- oversight responsibilities for:
 - management and human resources
 - strategy and planning
 - financial and corporate issues
 - business and risk management, including compensation risk
 - policies and procedures
 - compliance reporting and corporate communications, and
 - general legal obligations, including its ability to use independent advisors as necessary.

The Board has also developed position descriptions for the Chair of the Board, each committee Chair and the CEO. The position descriptions for the Chair of the Board and the CEO are part of their terms of reference. The position descriptions for the Chair of each committee are contained in the committee charters.

See **Appendix A** for a copy of the Board charter. The Board charter, committee charters and position descriptions for the Chair of the Board and the CEO are posted on our website (www.transcanada.com).

Strategic planning

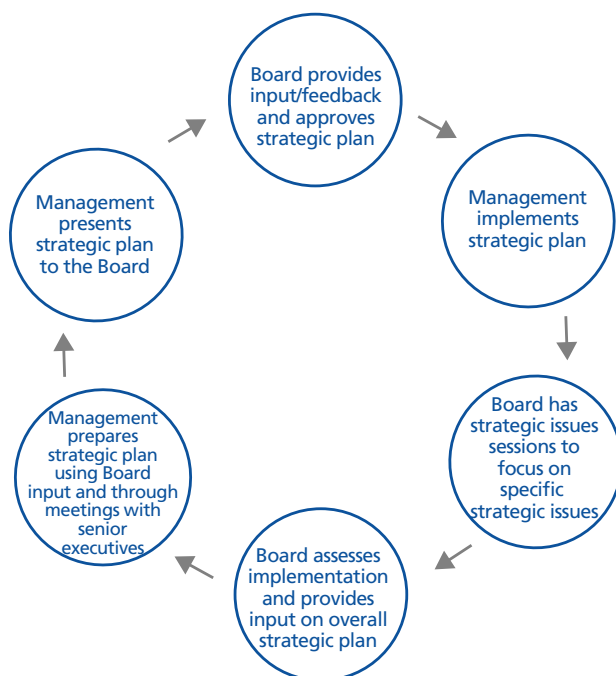
We have a multi-year strategic plan that balances risk and reward.

The Board provides oversight and direction in the strategic planning process to ensure management develops corporate strategies that support our vision to be the leading energy infrastructure company in North America. We set annual corporate objectives to support our core strategies for achieving growth and creating value for shareholders. These are established with and approved by the Board every year. The Governance committee oversees the processes used for the preparation and articulation of our strategic plan.

The Board monitors management's progress toward achieving strategic goals, and discusses a broad range of matters related to our strategy, business interests and the dynamic environment in which we operate at each regularly scheduled meeting. Management also reports regularly on our operational and financial performance.

The Board generally holds a formal annual strategic planning session over two days and several sessions on strategic issues throughout the year. At strategic planning sessions, management and the Board review and discuss management's strategic plan, with the strategic plan put forward to the Board for approval. The strategic issues sessions provide the Board with the opportunity to consider specific strategic issues in detail. The frequency of these strategic sessions provides the Board with the time they need to discuss and address strategic issues.

In addition to the ongoing strategic planning process, the Board and Governance committee address emerging strategic issues throughout the year as they arise.



See **Meeting attendance** on page 25 for more information about the meetings held in 2016 and **Orientation and education** on pages 37 and 38 for more information about the strategic issues and planning sessions attended by Board members in 2016.

Risk oversight

Process

The Board and its committees are responsible for risk oversight including overseeing management systems and processes for identification, evaluation, prioritization, mitigation and monitoring of risk. Our directors have a broad range of experience and skills in risk management and, as a result, the Board is highly engaged and qualified to participate in a meaningful discussion of key business risks with management at Board and committee meetings.

A key business risk is generally defined as an exposure that has the potential to materially impact TransCanada's ability to meet or support its business, operational or strategic objectives.

TransCanada maintains a comprehensive corporate risk register which identifies principal risks associated with our business and seeks input across the organization to ensure it reflects any new key business risks as our business grows and our environment evolves. In addition, 'top-of-mind' concerns are solicited from our senior executives and presented to the Board. This process recognizes the dynamic and evolving business environment in which we operate and allows management to keep the Board informed of existing and emerging risks and how those risks are managed or mitigated in accordance with TransCanada's risk parameters and risk tolerance.

All risks identified under the corporate risk register are categorized using a risk responsibility matrix which establishes clear accountabilities to the Board, committees and executives responsible for specific oversight of each risk.

Our risks are categorized according to these main areas:

- corporate strategy
- business strategy and execution
- business opportunity
- commercial operations
- physical operations, and
- general corporate risk (including compensation risk).

The Governance committee oversees our risk management process. The committee reviews 'top-of-mind' business risks with management at each committee meeting and the risk responsibility matrix with management annually to ensure there is proper Board and committee oversight according to the terms of their charters, and that we have management programs in place to mitigate those risks. It also recommends, along with the respective committee (or executive) assigned responsibility for specific risks, any enhancements to our risk management program and policies to the Board.

In addition, all projects and opportunities recommended by management to the Board for approval include specific descriptions on the associated risks. The risk discussion associated with each project forms a part of the Board's determination of whether to approve projects or pursue opportunities.

Our process ensures that the Board is fully informed of the interrelationship between the business environment and risks, and is intended to facilitate and stimulate discussion of our key business risks.

Our AIF and Annual report include more information about the risks applicable to TransCanada. The 2016 AIF and the 2016 Annual report are available on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Committee responsibilities

The various Board committees are also involved in risk oversight in their respective areas to ensure a robust risk management process with appropriate expertise, attention and diligence given to each key business risk. The chart below includes the risk focus area of each committee, and information on each risk focus area. The committees receive updates regularly from management on their risk focus areas, and update the Board on their risk oversight activities regularly. In addition to its specific focus area, each committee maintains an overall awareness of risk management for TransCanada, and includes other issues in its reports to the Board as appropriate.

Committee	Risk focus	Description
Audit	Financial risk	<ul style="list-style-type: none"> Oversees management's role in monitoring compliance with financial risk management policies and procedures and reviewing the adequacy of our financial risk management. Ensures that: <ul style="list-style-type: none"> our financial risk management strategies, policies and limits are designed to ensure our risks and related exposures are in line with our business objectives and risk tolerance, and risks are managed within limits that are ultimately established by the Board, implemented by senior management and monitored by our risk management and internal audit groups. Oversees cyber security and its related risks to TransCanada.
Governance	Risk management process and management allocation of risks	<ul style="list-style-type: none"> Reviews TransCanada's 'top-of-mind' business risks with management at each committee meeting. Oversees the risk responsibility matrix with management annually to ensure there is proper Board and committee oversight according to the terms of their charters. Ensures that we have management programs in place to mitigate those risks. Recommends, along with the respective committee (or executive) assigned responsibility for specific risks, any enhancements to our risk management program and policies to the Board.
Health, Safety and Environment	Operational risk, people and process safety, security and environmental risk	<ul style="list-style-type: none"> Monitors compliance with our health, safety and environment (HSE) corporate policies through regular reporting from management, within the framework of our integrated HSE management system that is used to capture, organize and document our related policies, programs and procedures. See the next page for more details.
Human Resources	Human resources and compensation risk	<ul style="list-style-type: none"> Oversees the compensation policies and practices to effectively identify and mitigate compensation risks and discourage members of the executive leadership team or others from taking inappropriate or excessive risks and to ensure our compensation policies are not reasonably likely to have a material adverse effect on TransCanada. See Compensation governance starting on page 50 for more information about how we manage our compensation risk.

HSE risk management system

Our management system for HSE is modeled after international standards, conforms to external industry consensus standards and voluntary programs, and complies with applicable legislative and regulatory requirements and various other internal management systems. It follows a continuous improvement cycle organized into four key areas:

- **Planning:** risk and regulatory assessment, objectives and targets, and structure and responsibility
- **Implementing:** development and implementation of programs, plans, procedures and practices aimed at operational risk management
- **Reporting:** document and records management, communication and reporting, and
- **Action:** ongoing audit and review of HSE performance.

The committee reviews HSE performance and operational risk management. It receives detailed reports on:

- overall HSE corporate governance
- operational performance and preventive maintenance metrics
- asset integrity programs
- emergency preparedness, incident response and evaluation
- people and process safety performance metrics, and
- developments in and compliance with applicable legislation and regulations.

The committee also receives updates on any specific areas of operational and construction risk management review being conducted by management and the results and corrective action plans flowing from internal and third party audits.

Generally, each year the committee or the committee Chair tours one of our existing assets or projects under development as part of its responsibility to monitor and review our HSE practices. Additionally, the Board and the committee have a joint site visit annually.

Succession planning

The Board is responsible for succession planning at the executive level including the development of the CEO succession plan. Succession planning for the CEO position is an ongoing process that includes analysis of each potential candidate's performance, skills and experience, assessment of the personal attributes and characteristics that the Board believes are necessary for the role, and assessment of developmental opportunities to increase senior executive bench strength.

The CEO prepares an overview of the executive vice-president roles, noting the required skills and expertise for each position and the current executive's areas of strength. He also prepares development plans for each executive and presents them to the Board. The CEO meets formally with each executive at least twice a year, and more frequently as necessary, to discuss progress on his or her development plan.

The CEO identifies potential future candidates for the executive vice-president positions and presents them to the Board for discussion. Each candidate is assessed based on their skills and experience and the competencies that are required for promotion to the senior executive level. Development opportunities are also identified so each candidate can receive additional or varied management experience, training, development and educational opportunities. The Board reviews each position and the performance assessment and competencies of potential successors at least once a year and makes decisions as appropriate.

Management diversity

Our executive leadership team includes our President and CEO, and all of our executive vice-presidents. Senior management includes our executive leadership team, as well as our senior vice-presidents and vice-presidents.

In 2013, management set and the Board reviewed three and five-year goals to increase the number of women in senior management.

Setting these goals supports our long-term commitment to ensuring TransCanada has a capable and diverse senior management team. We believe that having a defined goal for the representation of women in senior management is an effective way to increase the number of women on our executive leadership team over the long term. More women at the senior management level provides a larger group of women that can be considered for promotion to executive positions.

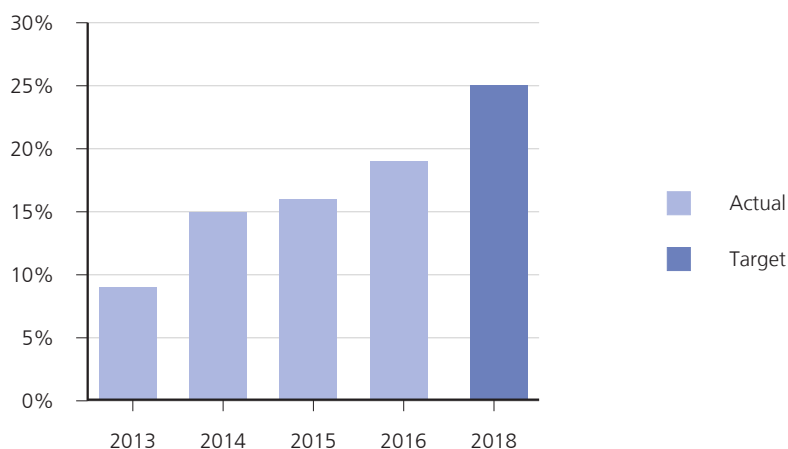
In order to achieve these goals we have focused on identifying, assessing and developing high potential candidates from our existing talent pool as well as strategic hires. High potential candidates are each assigned a sponsor on the executive leadership team who works with them to increase their exposure within the organization and at the Board.

The executive leadership team reviews and discusses this talent pool regularly and approves all senior management appointments. The Board approves all appointments to the executive leadership team.

Progress towards these goals is reviewed and assessed by the Human Resources committee and executive leadership team at least annually to ensure that we have a qualified pool of women, and that the women in senior management are being adequately supported and developed. The Board receives progress reports on our goals annually. In addition, the Human Resources committee annually reviews the company's initiatives to provide development opportunities for high potential and diverse candidates below the executive level.

We have achieved notable progress towards achieving our goals at the senior management level. In 2013, we set a three-year goal of 18 per cent of women in senior management. We exceeded that goal, with women holding 19 per cent of senior management positions at the end of 2016. Our target is to increase this percentage to 25 per cent by 2018.

Women in senior management



The Board encourages the inclusion of women candidates for consideration for all executive leadership positions, but ultimate decisions are made based on the qualifications of the candidates.

We do not have specific goals for the executive leadership team. In 2016, two of our eight or 25 per cent of our executive leadership team members were women. As of February 28, 2017, two of our nine, or 22 per cent of our executive leadership team were women.

Access to management

The Board has complete access to management, but gives reasonable advance notice to avoid disrupting the business and operations. The Board Chair and committee Chairs also connect with relevant members of the executive leadership team as needed.

The Board encourages the executive leadership team to include key managers in Board and committee meetings so they can share their expertise on specific matters. This gives the Board an opportunity to meet individuals who have the potential to assume more senior positions in the future, and for these individuals to gain exposure to the Board.

ORIENTATION AND EDUCATION

New directors participate in an orientation program featuring sessions on corporate strategy, our main business issues, and historical and financial information about TransCanada. They also have an opportunity to visit and tour our facilities and project sites and meet with the executive leadership team and other directors.

We tailor the sessions for each director based on individual needs and their specific areas of interest. New directors also meet one-on-one with members of the executive leadership team for an overview of the different areas of our business and operations and a discussion of key areas of interest. Briefing sessions are also held for new committee members.

Directors receive a reference manual with:

- details about their duties and obligations as a member of the Board
- information about our business and operations
- copies of the Board and committee charters
- copies of past public filings, and
- documents from recent Board meetings.

The Governance committee reviews the orientation program and manual every year so they continue to meet our needs and those of new directors.

The committee also develops the continuing education program every year based on current and emerging issues, our corporate objectives and input from other directors. Our 2016 education program included three in-depth focus sessions covering the business fundamentals of each of our lines of business (natural gas pipelines, liquids pipelines and energy).

Continuing education helps strengthen a director's knowledge and understanding of the business, industry, governance and other issues. Senior management and external experts make presentations to the Board and committees from time to time on various topics related to the business, including changes to legal, regulatory and industry requirements. Continuing education is also conducted on an informal basis and our directors are provided with articles and publications of interest.

We suggest seminars and education programs for our directors that may be relevant, and pay the registration fee and travel expenses as appropriate. We also offer to pay annual fees for memberships with organizations that are appropriate and provide relevant publications and educational opportunities to our directors.

2016 Director education program

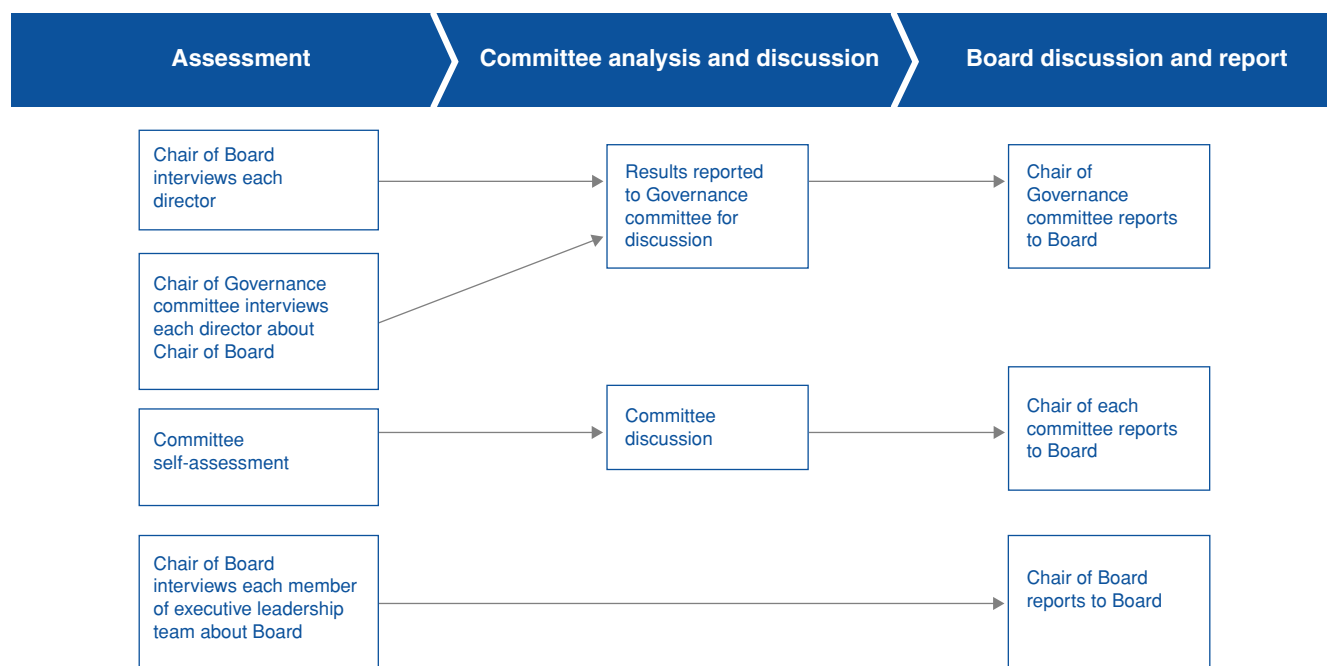
Date	Topic	Presented/hosted by	Attended by
May 5	Focus Session – North American Power	IHS	All directors
May 13	Focus Session – Oil Markets	IHS	All directors
June 2	National Conference, Calgary	Institute of Corporate Directors	D. Michael G. Stewart
June 3	Focus Session - Global and North America Natural Gas	IHS	All directors
June 13 - 14	Strategic planning session – economic outlook, clean energy landscape and renewables, natural gas pipelines, oil market fundamentals and asset allocation	Members of the executive leadership team and Senior Vice-President, Strategy and Corporate Development	All directors
August 9 - 10	Site visit - Columbia office and tour of construction sites, West Virginia	Chief Operating Officer	D. Michael G. Stewart
September 7	Strategic issues session – Mexico fundamentals and political risk	Credit Suisse and Estrategia Pública Consultores	All directors
September 8	Construction site tour – Tula, Hidalgo, Mexico	Mexico project team	All directors
November 2	Strategic issues session – oil & gas pipelines strategic review, and analysis on market activity	Executive Vice-President, Liquids Pipelines and Senior Vice-President, Strategy and Corporate Development	All directors
December 6	Strategic issues session – stakeholder environment	Senior Vice-President, Government Relations, Communication and Community Relations and Vice-President, Environment, Land and Indigenous Relations	All directors

BOARD EFFECTIVENESS AND DIRECTOR ASSESSMENT

The Governance committee oversees an assessment of the performance of the Board, the Chair, committees and individual directors annually and reports the results to the Board.

Interviews include questions about effectiveness, communication and personal and individual peer performance and solicit input from directors about areas for potential improvement. The interviews are open-ended to encourage discussion and seek specific input on topics such as risk, strategy and governance.

The Governance committee believes the interview process is the most effective way for directors to give feedback that can be reviewed by the entire Board. The committee also monitors developments in board governance and evolving best practices in corporate governance.



In 2016, the assessment process showed that the Chair, each director, and all committees are functioning effectively and fulfilling the mandates set out in the Board and committee charters.

In late 2016, we announced that Mr. Jackson would be retiring as Chair of the Board at the close of the 2017 annual meeting of shareholders, and that Mr. Vanaselja would be his successor. As a result, the assessment of the Chair of the Board for 2016 concentrated on 'lessons learned' during Mr. Jackson's tenure that would be valuable to Mr. Vanaselja as the incoming Chair of the Board.

Financial literacy

The Board has determined that all members of the Audit committee are *financially literate*, which means each member can read and understand a set of financial statements that are generally comparable to ours in terms of breadth and complexity of accounting issues. You can find more information about their education and financial experience in the director profiles starting on page 13, in the Audit committee report on page 46 and in the AIF which is available on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Board renewal

The Governance committee regularly assesses the skill set of each director, and reviews it against the director retirement schedule, their ages and the composition of each committee. The review also takes into account the desirability of maintaining a reasonable diversity of backgrounds, and character and behavioural qualities such as integrity.

The Governance committee, with input from the Chair of the Board and the CEO, is responsible for identifying suitable director candidates, and canvasses the entire Board for potential nominees. The committee also uses a third party recruitment specialist to identify potential director candidates. The committee is responsible for assessing the individuals and proposing the strongest candidates for nomination. An evolving roster of suitable director candidates is maintained by the committee.

The committee looks for a mix of skills and experience required for overseeing our business and affairs. The Board considers personal characteristics such as gender, ethnic background and geographic residence when looking at diversity. However, candidates are nominated as directors based on their background and ability to contribute to the Board and committee meetings.

The committee ensures that the Board seeks expertise in the following key areas:

- Accounting & finance
- Energy/utilities
- Engineering
- Governance
- Government/regulatory
- Health, safety and environment
- International markets
- Law
- Management/leadership
- Oil & gas/utilities
- Operations, and
- Risk management.

Candidates who are being nominated for the first time must have experience in industries similar to ours, or experience in general business management or with corporations that are similar in size and scope. Candidates must also be willing to serve on the Board, able to devote the necessary time to fulfill their duties and responsibilities and be under 70 years old.

The committee recommends potential candidates based on their qualifications and independence and how these qualities balance with the skill set of the current Board, the structure and composition of the committees and the director retirement schedule. This assessment helps the Board determine the best mix of skills and experience to guide our business operations and our long-term strategy.

Board matrix

The matrix below shows the likely retirement year of the current non-executive directors based on current age, and the skills, committees, education and expertise of all our nominated directors. The Governance committee considers these factors and others when discussing Board renewal.

Director (expected retirement year)	Education	Committees	Key Expertise Areas											
			Accounting/finance	Energy/utilities	Engineering	Governance	Government/regulatory	Health, safety and environment	International markets	Law	Management/leadership	Oil & gas/utilities	Operations	Risk management
Kevin E. Benson (2018)	Chartered Accountant	Audit Governance	X			X	X				X		X	X
Derek H. Burney (2018)	M.A. Political Science B.A. Political Science (Hon)	Audit Governance (Chair)		X		X	X		X		X			
Stéphan Crétier (2033)	MBA	Audit Health, Safety and Environment	X			X	X		X		X		X	X
Russell K. Girling	MBA B. Comm	–	X	X		X	X	X			X	X	X	X
S. Barry Jackson (2023)	B.Sc. Engineering	Chair Governance Human Resources		X	X	X		X			X	X	X	
John E. Lowe (2029)	Certified Public Accountant	Audit Health, Safety and Environment	X	X			X	X	X		X	X	X	X
Paula Rospot Reynolds (2027)	B.A. Economics (Hon)	Health, Safety and Environment Human Resources (Chair)	X	X		X					X	X		X
Mary Pat Salomone (2030)	MBA B.A. Engineering	Health, Safety and Environment Human Resources		X	X	X		X	X		X		X	
Indira Samarasekera (2023)	PhD Metallurgical Engineering M.Sc. Mechanical Engineering B.Sc. Mechanical Engineering	Audit Governance			X	X	X				X			
D. Michael G. Stewart (2022)	B.Sc. Geological Science	Audit Health, Safety and Environment (Chair)		X				X	X		X	X	X	X
Siim A. Vanaselja (2027)	Hon. BBA	Audit (Chair) Governance	X			X			X		X			X
Richard E. Waugh (2018)	Hon. MBA B. Comm (Hon)	Governance Human Resources	X			X			X		X			X

Director tenure

Once a director turns 70, he or she will not stand for re-election at the next annual meeting. The Board may waive the retirement age for a director if:

- they have not served seven consecutive years by age 70, or
- their continued service is in the best interests of the company, because of their specific skills and experience.

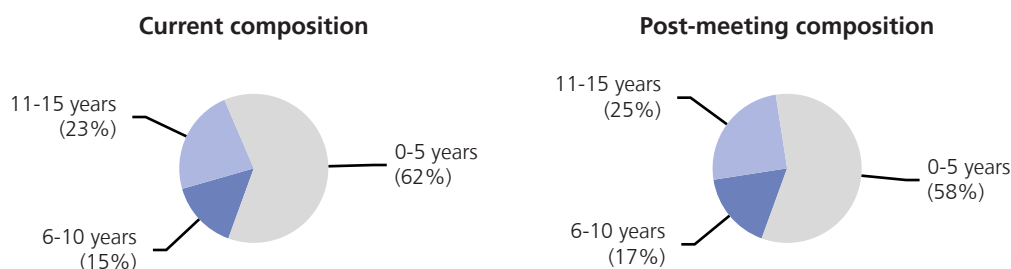
The Governance committee reviews factors like age, changes in principal occupation, consistently poor attendance, poor performance and other relevant circumstances that may trigger the resignation or retirement of a director.

TransCanada does not use term limits for our directors. We do not believe term limits are an effective mechanism to promote board renewal. In addition to the annual director assessment, which ensures that each of our Board members, committees and the Board is functioning effectively, the committee reviews director succession planning at least annually. This review provides the opportunity for the committee to focus on creating a board with an appropriate mix of experience and skills to guide the long-term strategy and ongoing business operations of the company. Our flexible retirement policy promotes effective Board turnover without limiting the mix of skills and experience on the Board.

The Board has waived the retirement age policy for Mr. Benson and Mr. Burney and asked each of them to stand for re-election at the 2017 annual meeting. The Board and Governance committee determined that the retirement age policy should be waived for Mr. Benson and Mr. Burney as they continue to provide significant contributions to the Board. Mr. Benson's extensive business experience and management skills continue to provide valuable input to TransCanada's business and affairs. Mr. Burney's experience and deep understanding of the evolving business and political environment continue to be important, particularly with respect to the Keystone XL Pipeline project. The Board believes that the skills, experience, and continuity provided by Mr. Benson and Mr. Burney's extended tenure will be valuable to the Board over the coming year.

While Mr. Jackson is stepping down as Board Chair, he is standing for re-election. We believe that his continued membership on the Board provides continuity, and allows TransCanada to benefit from his extensive experience in the oil and gas industry.

The graphs below show the composition of our Board by years of service as of the date of this circular and after the annual meeting, assuming all of the nominated directors are elected.



ENGAGEMENT

We believe it is important to engage with our stakeholders.

Members of our Board engage with governance organizations and shareholder advocacy groups to discuss emerging best practices and provide commentary on how we maintain our high standard of corporate governance.

TransCanada regularly engages with our shareholders and other stakeholders. Our executive leadership team hosts teleconferences to discuss our quarterly financial and operating results. The teleconferences are webcast and available to analysts, media, shareholders and the public. Our executive and senior management also typically speak at investor conferences and meet one-on-one with investors as part of our shareholder engagement. In 2016, we engaged with institutions representing more than 50 per cent of current outstanding shares.

A list of upcoming and past events and presentations, including presentation slides and webcasts, where available, can be found online at www.transcanada.com.

Investor relations welcomes opportunities to engage with our shareholders and other stakeholders. You may contact our investor relations department directly by phone, email, or regular mail at:

Investor Relations
TransCanada Corporation
450 1st Street S.W.
Calgary, Alberta
Canada T2P 5H1
investor_relations@transcanada.com
1.800.361.6522

COMMUNICATING WITH THE BOARD

Shareholder engagement allows us to hear directly from shareholders and other important stakeholders about any issues or concerns.

Shareholders, employees and others can contact the Board directly by writing to:

Chair of the Board of Directors
c/o Corporate Secretary
TransCanada Corporation
450 1st Street S.W.
Calgary, Alberta T2P 5H1

The Board, including committee Chairs, will also be available at the annual meeting to receive questions from shareholders.

SHAREHOLDER PROPOSALS

According to Canadian law, shareholder proposals can only be considered for the annual meeting of common shareholders if they are submitted by a specific date.

Our Corporate Secretary must receive any shareholder proposals **before 5:00 p.m. MDT on November 30, 2017** to be considered for the Management information circular for our 2018 annual meeting of common shareholders.

ADVANCE NOTICE BYLAW

Shareholders who wish to nominate a director for the 2017 annual meeting of common shareholders, other than by a shareholder proposal, must:

- notify the Corporate Secretary in writing, and
- provide the information required in our By-law Number 1, which can be found on our website (www.transcanada.com) or on SEDAR (www.sedar.com).

Any notices of director nominees must be received by the Corporate Secretary **before 5:00 p.m. MDT on April 5, 2017** for an individual to be included in our list of director nominees for our 2017 annual meeting of common shareholders.

The chart below explains when advance notice of director nominations is required for annual meetings and special meetings:

Type of meeting	Announcement timing	Advance notice deadline
Annual meeting	Public announcement more than 50 days before meeting	Not less than 30 days before meeting
	Public announcement 50 days or less before meeting	Not less than 10 days following the first public announcement of the meeting
Special meeting to elect directors	Public announcement more than 50 days before meeting	Not less than 15 days before meeting
	Public announcement 50 days or less before meeting	Not less than 15 days following the first public announcement of the meeting

BOARD COMMITTEES

The Board has four standing committees:

- Audit committee
- Governance committee
- Health, Safety and Environment committee, and
- Human Resources committee.

Each of the committees is comprised entirely of independent directors.

The Governance committee is responsible for reviewing the composition of each committee and recommending any changes once new directors are appointed or elected to the Board. Each committee must consist entirely of independent directors, except for the Health, Safety and Environment committee, which must have a majority of independent directors. Currently, all members of the Health, Safety and Environment committee are independent. Each committee has the authority to retain advisors to help it carry out its responsibilities. The Board does not have an executive committee.

Each committee reviews its charter at least once a year, and recommends any changes to the Governance committee and the Board. You can find the committee charters on our website (www.transcanada.com).

The Audit and the Human Resources committees hold simultaneous meetings, as do the Governance and Health, Safety and Environment committees, so each committee has sufficient time to focus on its responsibilities. As a result, Mr. Jackson, the independent non-executive Chair of the Board, is a voting member of the Governance committee and the Human Resources committee, and is not a member of the Audit committee or the Health, Safety and Environment committee.

The committees will be reconstituted after the annual meeting.

Each meeting has time set aside for members to discuss the committee operations and responsibilities without management present.

Audit committee

Members	Siim Vanaselja (Chair) Kevin E. Benson Derek H. Burney Stéphan Crétier (as of February 17, 2017) John Lowe Mary Pat Salomone (until April 29, 2016) Indira Samarasekera (as of April 29, 2016) D. Michael G. Stewart
Meetings in 2016	5 regularly scheduled meetings (February, April, July, November, December)
Independent	7 independent directors, 100 per cent independent and financially literate.
	Mr. Vanaselja, Mr. Benson and Mr. Lowe are “audit committee financial experts” as defined by the SEC in the U.S., and each have the accounting or related financial management experience required under the NYSE rules.
Mandate	The Audit committee is responsible for assisting the Board in overseeing the integrity of our financial statements and our compliance with legal and regulatory requirements. It is also responsible for overseeing and monitoring the accounting and reporting process and the process, performance and independence of our internal and external auditors.

The Audit committee meets in-camera with the Chief Financial Officer (CFO) at the beginning of each meeting, and also meets separately with the external auditors and Vice-President, Corporate Compliance and Internal Audit. The committee also meets in-camera at the end of each meeting.

2016 highlights

- **Reviewed** our 2016 interim and annual disclosure documents including the unaudited interim and audited annual consolidated financial statements and related management’s discussion and analysis, AIF and circular and recommended them for approval.
- **Oversaw** our financial reporting risks including issues relating to materiality and risk assessment.
- **Received** the external auditor’s formal written statement of independence (which sets out all of its relationships with TransCanada) and its comments to management about our internal controls and procedures.
- **Reviewed** the appointment of the external auditor and estimated fees and recommended them to the Board for approval.
- **Reviewed** the audit plans of the internal and external auditors and pre-approved the non-audit services performed by KPMG relating primarily to tax and benefit plans.
- **Recommended** the funding of the Registered Pension Plan and Supplemental Pension Plan.
- **Reviewed** the major accounting policies and estimates.
- **Received** reports from management on our cybersecurity plans and initiatives.
- **Oversaw** the corporate compliance program requirements, structure and results, including foreign corrupt practices and anti-bribery statutes and policies.
- **Monitored** Canadian and U.S. financial reporting and legal and regulatory developments affecting our financial reporting process, controls and disclosure.
- **Reviewed and recommended** changes to the suite of risk management policies, and reviewed developments and reports relating to counterparty, insurance and market risks.
- **Reviewed and recommended** prospectuses relating to the issuance of securities.
- **Recommended** amendments to the Public disclosure policy and *Code of business ethics*.
- **Approved** annual election to enter into uncleared swaps as permitted under U.S. legislation and monitored compliance.
- **Received** regular reports from management on risk management, finance and liquidity, treasury, pensions, compliance, material litigation and information services security controls.
- **Received** regular reports from Internal Audit.
- **Reviewed** adequacy of staff complements in accounting and tax.
- **Reviewed and Recommended** amendments to the Audit committee charter.
- **Reviewed** material litigation.

Our AIF includes more information about the Audit committee, including the committee charter, oversight responsibilities, each member’s education and experience, and policies and procedures for pre-approving permitted non-audit services. The 2016 AIF is available on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Governance committee

Members	Derek H. Burney (Chair) Kevin E. Benson S. Barry Jackson Indira Samarasekera (as of April 29, 2016) Siim A. Vanaselja Richard E. Waugh
Meetings in 2016	3 regularly scheduled meetings (February, April, November)
Independent	6 independent directors, 100 per cent independent
Mandate	<p>The Governance committee is responsible for assisting the Board with maintaining strong governance policies and practices at TransCanada, reviewing the independence and financial literacy of directors, managing director compensation and the Board assessment process, and overseeing our strategic planning process and risk management activities.</p> <p>It monitors the relationship between management and the Board, directors' share ownership levels, governance developments and emerging best practices. It is also responsible for identifying qualified candidates for the Board to consider as potential directors.</p> <p>It also recommends the meeting schedule for Board and committee meetings, site visits, and oversees matters related to the timing of our annual meeting.</p>

The Governance committee meets in-camera at the beginning and end of each meeting.

2016 highlights

- **Reviewed** the independence of each director according to our written criteria to give the Board guidance in its annual assessment of independence and the structure and composition of each committee, and the other directorships held by Board members (including public and private companies, Crown corporations and non-profit organizations).
- **Oversaw** our strategic planning process, including strategic issues to be considered and planning of our strategic issues and planning sessions.
- **Oversaw** our risk management activities, including receiving updates on 'top of mind' business risks and making recommendations to the Board as appropriate.
- **Reviewed** the identified principal risks with management to ensure we have proper Board and committee oversight and management programs in place to mitigate risks.
- **Monitored** director share ownership requirements.
- **Recommended** that director compensation be moved to a flat fee structure and that the director retainer be increased. The committee also recommended increases to the Audit committee and Human Resources committee Chair retainers.
- **Reviewed** our Corporate governance guidelines and committee charters and recommended appropriate changes to the Board for approval. The changes included limiting the total number of boards that a director may serve on to four, and the total number of boards that the CEO may serve on to two.
- **Reviewed** say on pay updates and voting trends.
- **Oversaw** the annual assessment of the Board, committees and Chair.
- **Monitored** updates to securities regulations (regulation and legal updates affecting our policies, procedures and disclosure practices) and matters relating to the financial markets. The committee continues to monitor legal developments and emerging best practices in Canada, the U.S. and internationally.
- **Oversaw** the Board's retirement policy, Board renewal, and the selection of new director candidates.
- **Oversaw** the selection of the new Board Chair. The process was led by the Governance committee Chair.
- **Reviewed** our lobbying policies, activities and expenditures.
- **Reviewed** external governance assessments and made recommendations for revisions to governance practices to the Board as appropriate.

Health, Safety and Environment committee

Members	D. Michael G. Stewart (Chair) Stéphan Crétier (as of February 17, 2017) John Lowe Paula Rosput Reynolds John Richels (retiring May 5, 2017) Mary Pat Salomone Paule Gauthier (retired April 29, 2016)
Meetings in 2016	4 regularly scheduled meetings (February, April, June and November)
Independent	6 independent directors, 100 per cent independent
Mandate	<p>The Health, Safety and Environment committee is responsible of oversight for health, safety, security and environmental matters (HSE matters).</p> <p>The committee reviews and monitors:</p> <ul style="list-style-type: none"> the performance and activities of TransCanada on HSE matters including compliance with applicable and proposed legislation, regulations and orders; conformance with industry standards and best practices; people, health, safety and security; process safety; asset reliability; operational risk management and asset integrity plans and programs; and emergency response plans and programs the systems, programs and policies relating to HSE matters and whether they are being appropriately developed and effectively implemented actions and initiatives undertaken by TransCanada to prevent, mitigate and manage risks related to HSE matters which may have the potential to adversely impact our operations, activities, plans, strategies or reputation; or prevent loss or injury to our employees and assets or operations from malicious acts, natural disasters or other crisis situations any critical incidents respecting our assets or operations involving: the fatality of or a life threatening injury to a person; any pipeline ruptures resulting in significant property damage or loss of product; any whistleblower events relating to HSE matters; or any incidents involving personnel and public safety, property damage, environmental damage or physical security that have the potential to severely and adversely impact our reputation and or business continuity significant regulatory audits, findings, orders, reports and/or recommendations issued by or to TransCanada related to HSE matters or issues, together with management's response thereto.

The Health, Safety and Environment committee met separately with the Chief Operating Officer at the end of each meeting. The committee also meets in-camera at the end of each meeting.

2016 highlights

- **Received and reviewed** regular reports on HSE related activities, performance and compliance.
- **Received** regular reports on operational risk management, people and process safety and regulatory compliance matters related to asset integrity.
- **Reviewed** the status of critical incidents, root cause analysis and incident follow-up.
- **Monitored** management's response and the status of corrective action plans to significant audits from the National Energy Board, Pipeline and Hazardous Materials Safety Administration and other regulatory agencies.
- **Oversaw** our risk management activities related to health, safety, security and environment, and reported to the Board as appropriate.
- **Monitored** the effectiveness of health, safety and environment policies, management systems, programs, procedures and practices through the receipt of reports on four levels of governance activities related to internal and external audit findings.
- **Monitored** updates to Canadian and U.S. air emissions and greenhouse gas legislation, climate change initiatives and related compliance matters.
- **Committee Chair visited** the Columbia office, and toured construction sites in West Virginia.
- **Received** an update on Columbia HSE performance and integration.
- **Received** an overview of the Crisis Management Plan.
- **Received** an annual update on insurance coverage.
- **Received** and reviewed regular reports on the operational and HSE performance at Bruce Power.

Human Resources committee

Members	Paula Rosput Reynolds (Chair) S. Barry Jackson John Richels (retiring May 5, 2017) Mary Pat Salomone (as of April 29, 2016) Richard E. Waugh Paule Gauthier (retired April 29, 2016)
Meetings in 2016	5 regularly scheduled meetings (January, February, September, November and December)
Independent	5 independent directors, 100 per cent independent
Mandate	<p>The Human Resources committee is responsible for assisting the Board with developing strong human resources policies and plans, overseeing the compensation programs, and assessing the performance of the CEO and other members of the executive leadership team against pre-established objectives and recommending their compensation to the Board.</p> <p>It approves all executive incentive awards, and any major changes to the compensation programs and benefits plans for employees. It is also responsible for the benefits under our Canadian pension plans and reviewing our share ownership requirements for executives.</p>

The Human Resources committee meets in-camera at the beginning and end of each meeting.

2016 highlights

- **Assessed** the performance of the executive leadership team and recommended the 2016 executive compensation awards to the Board for approval.
- **Reappointed** Meridian Compensation Partners (Meridian) as the independent compensation advisor to the committee after determining that Meridian is independent based on the factors enumerated by the NYSE.
- **Increased** the number of common shares reserved for issuance under the stock option plan to allow for grants to be made over the next three years, as approved by shareholders.
- **Modified** the performance measure relative weightings for the named executives under the short-term incentive plan to reflect organizational changes.
- **Adopted** a provision for the 2016 grant under the executive share unit (ESU) plan that the cumulative comparable earnings per share multiplier will be a maximum of 1.0 if the ratio of cumulative dividends per share/cumulative comparable funds generated from operations per share for the three-year period is greater than 50 per cent.
- **Reviewed** the methodology for determining exclusions from comparable earnings per share.
- **Reviewed** a compensation related risk checklist.
- **Reviewed** and recalibrated peer groups as necessary.
- **Reviewed** the stock option plan and recommended changes to amendment provisions to align with best practices.

Compensation

We are committed to high standards of corporate governance, including compensation governance.

This section tells you how the Board makes director and executive compensation decisions at TransCanada, and explains its decisions for 2016.

Compensation governance

The Board, the Human Resources committee and the Governance committee are responsible for the integrity of our compensation governance practices.

Human Resources committee

- Paula Rosput Reynolds (Chair)
- S. Barry Jackson
- John Richels (retiring May 5, 2017)
- Mary Pat Salomone (as of April 29, 2016)
- Richard E. Waugh

Governance committee

- Derek H. Burney (Chair)
- Kevin E. Benson
- S. Barry Jackson
- Indira Samarasekera (as of April 29, 2016)
- Siim A. Vanaselja
- Richard E. Waugh

The Board approves all matters related to executive and director compensation. The committees are responsible for reviewing compensation matters and making any recommendations. Both committees are entirely independent. Each Human Resources committee member is independent under the NYSE compensation committee independence requirements.

WHERE TO FIND IT

> Compensation governance	50
Expertise	51
Compensation oversight.....	52
Independent consultant.....	55
Director compensation consultant ..	55
> Director compensation	56
Director compensation discussion and analysis	56
2016 details	60
> Executive compensation	68
Human Resources committee letter to shareholders	65
Executive compensation discussion and analysis	68
2016 details	95

EXPERTISE

Human resources and executive compensation

The Human Resources committee is responsible for executive compensation. It consists of five independent directors who have an appropriate mix of skills and experience in management, business, industry, human resources, executive compensation and public accountability for carrying out their responsibilities.

Name	Human resources/ compensation experience	CEO/EVP experience	Risk management	Governance	Law	Finance & accounting
Paula Rosput Reynolds (Chair)	X	X	X	X		X
S. Barry Jackson	X	X		X		
John Richels (retiring May 5, 2017)	X	X	X	X	X	X
Mary Pat Salomone (as of April 29, 2016)	X	X		X		X
Richard E. Waugh	X	X	X	X		X

All of the members have experience as members of human resources or compensation committees of other public companies. All of the members also have governance experience and most have finance and accounting experience.

Ms. Reynolds, the committee Chair, was the CEO of two U.S. public companies and was responsible for overseeing compensation plans and their implementation, and has experience in designing and assessing performance-based goals for executives. She has worked closely with compensation consultants and has been involved in all aspects of the design, implementation and administration of compensation programs.

Mr. Jackson has served as the chair or been a member of the compensation committee for several public companies. As a former CEO of a public oil and gas company, Mr. Jackson has experience in overseeing executive compensation programs and working closely with compensation consultants, and has been involved in all aspects of the design, implementation and administration of compensation programs as a senior executive and director.

Mr. Richels was the president and CEO of a publicly traded company and now serves as Chairman. He was also the CFO of a public company, and was the managing and chief operating partner for a law firm. Mr. Richels has experience in developing and implementing compensation plans and performance-based goals for executives and enterprise-wide personnel.

Ms. Salomone currently serves as the chair and member of compensation committees for two other publicly traded companies. She was previously the Senior Vice-President and Chief Operating Officer of a publicly traded energy infrastructure company and also held a number of senior positions within the energy infrastructure industry. Ms. Salomone has experience in the implementation and administration of the compensation programs and performance-based goals for executives.

Mr. Waugh, as the former CEO of a publicly traded financial institution, has experience in overseeing, administering and implementing executive compensation programs and compensation plans.

In addition to the committee's collective experience in compensation matters, all of the members stay actively informed of trends and developments in compensation matters and the applicable legal and regulatory frameworks.

Governance

You can find specific details about each director's background and experience in the director profiles starting on page 13, and more information about the committees starting on page 45.

The Governance committee is responsible for director compensation and risk oversight. It consists of five independent directors who have a mix of skills and experience in business, risk, governance, human resources and compensation. Five of the members are currently or have been members of human resources or compensation committees of other public companies. Five of the members also have experience as a CEO of one or more public companies, which has provided each of them with experience in oversight of and direct involvement in compensation matters.

COMPENSATION OVERSIGHT

The purpose of the Board's compensation oversight is to ensure that executives and directors are compensated fairly with respect to market in a way that does not lead to undue risk in TransCanada's business and operations.

The Board reviews our compensation policies and practices every year, considers the possibility of risks, and makes any adjustments it deems necessary to ensure that our compensation policies are not reasonably likely to have a material adverse effect on TransCanada. It carries out this work directly or through the Human Resources committee and the Governance committee.

The Board has approved various compensation policies and practices to effectively identify and mitigate compensation risks and discourage members of the executive leadership team or others from taking inappropriate or excessive risks.

Multi-year strategic plan

We have a multi-year strategic plan that identifies our core strategies to achieve our vision of being the leading energy infrastructure company in North America. Our core strategies include:

- maximizing the full-life value of our infrastructure assets and commercial positions
- commercially developing and building new asset investment programs
- cultivating a focused portfolio of high quality development options, and
- maximizing our competitive strengths.

Executive compensation is closely linked to the strategic plan. Our annual corporate objectives support the strategic plan and are integrated in our compensation decision-making process. At the end of each year, the Board assesses our performance against the corporate objectives to determine the Corporate factor that is used in calculating short-term incentive awards for the executive leadership team and all other employees. The Board also ensures that the annual individual performance objectives for each member of the executive leadership team align with our corporate objectives and reflect performance areas that are specific to each role when it determines total direct compensation for each executive.

Compensation philosophy

Our compensation philosophy guides all compensation program design and decisions. Our approach to compensation is structured to meet four key objectives: pay for performance, be market competitive, align executives' interests with those of our various stakeholders, and attract, engage and retain our executives. In setting compensation levels, each component – base salary, short-term and long-term incentives – as well as total direct compensation are determined with reference to median levels in our peer group (see pages 73 through 85 for details).

Executive compensation is designed to pay for performance, as a significant portion of total direct compensation is variable or at-risk compensation. See pages 90 through 94 for the pay mix for each named executive.

Executive compensation structured to manage risk

The Human Resources committee and the Board have structured the executive compensation program to ensure that executives are compensated fairly and in a way that does not present undue risk to TransCanada or encourage executives to take inappropriate risks.

- **Structured process:** The committee has implemented a formal decision-making process that involves management, the committee and the Board. The committee uses a multi-step review process for all compensation matters, first adopting goals and metrics of performance, reviewing how performance compares to the pre-established metrics and then seeking Board input as to the reasonableness of the results.
- **Benchmarking to ensure fairness:** Executive compensation is reviewed every year. Director compensation is reviewed every two years by the Governance committee and the Board. Both director and executive compensation are benchmarked against size appropriate peer groups to assess competitiveness and fairness, and the appropriateness of the composition of the applicable peer groups is reviewed.
- **Modelling and stress testing:** The committee uses modelling to stress test different compensation scenarios and potential future executive compensation. This includes an analysis of the potential effect of different corporate performance scenarios on previously awarded and outstanding compensation to assess whether the results are reasonable. The committee also uses modelling to assess the payments under the terms of the executives' employment agreements for severance and change of control situations.
- **Independent advice:** The committee uses an independent external compensation consultant to provide advice in connection with executive pay benchmarking, incentive plan design, compensation governance and pay for performance.
- **Alignment with shareholders:** The committee and the Board place a significant emphasis on long-term incentives when determining the total direct compensation for the executive leadership team. Our long-term incentives include stock options and performance vesting executive share units (ESUs) – both of which encourage value creation over the long-term and align executives' interests with our shareholders.
- **Pre-established objectives:** Each year the Board approves corporate, business/functional and individual objectives that are aligned with the overall business plan for each member of the executive leadership team. These objectives are used to assess performance and determine compensation.
- **Multi-year performance-based compensation:** Awards under the ESU plan are paid out based on our performance against objectives set for the three-year vesting period.
- **Limits on variable compensation payments:** Short-term incentive awards are subject to a minimum of a zero payout up to a maximum payout of two times target. Long-term incentive awards under the ESU plan are limited to a maximum payout of 2.0 times the final number of units accrued at the end of the vesting period (1.5 for awards prior to the 2015 grant).
- **Discretion:** The Board completes a formal assessment annually, and can then use its discretion to increase or decrease any compensation awards if it deems it appropriate based on market factors or other extenuating circumstances. However, to maintain the integrity of the metrics-based framework, the Board exercises its discretion sparingly.

Policies and guidelines to manage risk

The Governance committee, the Human Resources committee and the Board have instituted several policies to ensure that compensation risk is appropriately managed and that the interests of both directors and executives are aligned with those of our shareholders. These policies are derived from best practices in governance and legal requirements.

- **Corporate objectives:** We adopt corporate objectives consistent with our approved financial plan so that the Board can monitor how compensation influences business decisions.
- **Share ownership requirements:** We have share ownership requirements for both directors and executives, reflecting the Board's view that directors and executives can represent the interests of shareholders more effectively if they have a significant investment in TransCanada.
- **Prohibition on hedging:** Our trading policy includes an Anti-hedging policy preventing directors and officers from using derivatives or other instruments to insulate them from movements in our share price. This includes prepaid variable forward contracts, equity swaps, collars, units of exchange funds, and other hedging vehicles.
- **Reimbursement:** We have an Incentive compensation reimbursement policy which requires employees at the vice-president level and above to repay vested and unvested short and long-term incentive compensation (including proceeds realized from the exercise of stock options) granted in the three-year period preceding a restatement of financial results or a material error in financial reporting if the restatement or error resulted from the employee's intentional misconduct. We will amend the policy as necessary to conform with any applicable laws, such as the final Dodd-Frank rules. In addition, if there is an incidence of misconduct with our financial reporting and we must restate our financial statements because of material non-compliance with a financial reporting requirement, our CEO and CFO are required by law to reimburse TransCanada for incentive-based compensation related to the period the misconduct occurred. They must also reimburse us for any profits they realized from trading TransCanada securities during the 12 months following the issue of the misstated financial statements.
- **Say on pay:** We implemented a non-binding advisory shareholder vote on our approach to executive compensation starting in 2010. The results shown in the table below confirm that a significant majority of shareholders have accepted our approach to executive compensation. The approval vote as a percentage of shares voted in favour of our approach to executive compensation for the last three years are as follows:

Year	Approval vote (%)
2016	97.47
2015	97.10
2014	94.28

- **Code of business ethics:** Our Code of business ethics applies to employees, contract workers, independent consultants and directors. The Code incorporates principles of good conduct and ethical and responsible behaviour to guide our decisions and actions and the way we conduct business.

After considering the implications associated with our compensation policies and practices, completing a review of our policies and practices described above, and with advice from the independent consultant to the Human Resources committee, the Board believes that:

- we have the proper practices in place to effectively identify and mitigate potential risk, and
- TransCanada's compensation policies and practices do not encourage any member of our executive leadership team, or any employee to take inappropriate or excessive risks, and are not reasonably likely to have a material adverse effect on our company.

In addition to our compensation policies and practices, our corporate values – Safety, Responsibility, Integrity, and Collaboration – also guide director, officer and employee behaviour, underpin our company culture and define the character of the organization we share and work in every day.

INDEPENDENT CONSULTANT

The Human Resources committee retains an independent compensation consultant to provide advice on compensation-related matters.

The committee created a mandate for the consultant that includes:

- advising on compensation levels for the CEO and named executives
- assessing the CEO's recommendations on the compensation of the other named executives
- attending all of its committee meetings (unless otherwise requested by the committee Chair)
- providing data, analysis or opinion on compensation-related matters requested by the committee or its Chair, and
- reporting to the committee on any matters that may arise related to executive compensation.

Meridian Compensation Partners (Meridian) has been the independent compensation consultant since September 2014. The committee obtains independent advice from the consultant who provides a neutral source of data and information on compensation practices and trends. While the consultant's advice is an important tool in the committee's processes, the committee remains wholly responsible for making its own decisions and recommendations to the Board.

Meridian provides advice to the committee on matters relating to executive compensation, it does not provide consulting or other services to TransCanada, and is not permitted to provide services to management. Before engaging Meridian, and each year after considering all factors bearing on the consultant's independence, including those factors enumerated by the NYSE, the committee determined that Meridian is independent.

The table below shows the executive compensation-related fees paid in 2015 and 2016.

Executive compensation-related fees

(\$ in millions)

Meridian	2016	2015
Consulting to the Human Resources committee	0.15	0.17
All other fees	—	—
Total fees	\$0.15	\$0.17

DIRECTOR COMPENSATION CONSULTANT

In 2016, the Governance committee retained a compensation consultant, Willis Towers Watson, to assist in its review of board compensation, market competitiveness and board compensation trends.

The table below shows director compensation-related fees paid in 2015 and 2016.

Director compensation-related fees

(\$ in millions)

Willis Towers Watson	2016	2015
Consulting to the Governance committee		
• preparing a report on director compensation	0.04	—
All other fees		
• compensation consulting and market data services for executives and non-executives	0.05	0.03
• benefit and pension actuarial consulting services for our Canadian and U.S. operations	2.65	2.77
• pension administration services for our Canadian and U.S. operations	1.92	1.85
• preparing a report on LP director compensation	0.03	—
• insurance placement and advice	1.40	—
Total fees	\$ 6.09	\$ 4.65

Director compensation discussion and analysis

APPROACH

Our director compensation program reflects our size and complexity, and reinforces the importance we place on delivering shareholder value. Director compensation includes annual retainers and meeting fees that are paid in cash and DSUs to link a significant portion of their compensation to the value of our shares (see *Deferred share units*, below for more information about the DSU plan).

The Board follows a formal performance assessment process to ensure directors are engaged and make meaningful contributions to the Board and committees they serve on.

The Governance committee reviews director compensation every two years, and makes compensation recommendations to the Board for its review and approval. Recommendations take into consideration the directors’ time commitment, duties and responsibilities, and director compensation practices at comparable companies.

Directors of TransCanada also serve as directors of TCPL. Board and committee meetings of TransCanada and TCPL run concurrently, and the director compensation described below is for serving on both Boards. TransCanada does not hold any material assets directly, other than TCPL common shares and receivables from some of our subsidiaries. As a result, TCPL assumes all directors’ costs according to a management services agreement between the two companies.

WHERE TO FIND IT

> Director compensation discussion and analysis	56
Approach	56
Components	59
> 2016 details	60
Director compensation table	60
At-risk investment	62
Incentive plan awards	64

Benchmarking

Director compensation is benchmarked against two peer groups. The companies in the custom peer group are relatively consistent with the group of Canadian publicly-traded companies included in the executive compensation peer group and this group provides an industry specific market reference point. Since directors tend to be recruited from a variety of industries, the general industry peer group provides an additional market reference point of publicly-traded Canadian companies that are similar in size and scope to TransCanada. Total compensation is determined with reference to median levels in our peer groups, so we can attract and retain qualified directors. The Governance committee reviews director compensation every two years, based on independent advice respecting compensation paid by our peer companies. The Governance committee refers to the report when conducting its compensation review.

The peer groups were revised in 2016, when the Governance committee reviewed director compensation. The custom peer group was revised to align with the peer group adopted by the Human Resources committee for 2016 named executive compensation. Talisman Energy Inc. was removed from the peer groups, as it is no longer a public company.

2016 peer groups

Custom peer group	General industry peer group
American Electric Power Co.	Agrium Inc.
Canadian National Railway Company	Canadian National Railway Company
Canadian Natural Resources Ltd.	Canadian Pacific Railway Limited
Cenovus Energy Inc.	Cenovus Energy Inc.
Dominion Resources Inc.	Enbridge Inc.
Enbridge Inc.	Encana Corporation
Encana Corporation	Maple Leaf Foods Inc.
Exelon Corporation	Metro Inc.
Fortis Inc.	National Bank of Canada
Husky Energy Inc.	Potash Corporation of Saskatchewan Inc.
Imperial Oil Ltd.	Resolute Forest Products Inc.
Kinder Morgan Inc.	Suncor Energy Inc.
NextRa Energy Inc.	TELUS Corporation
Occidental Petroleum Corporation	
PG&E Company	
Southern Company	
Spectra Energy Corp.	
Suncor Energy Inc.	
Teck Resources Ltd.	
Williams Companies Inc.	

Aligning the interests of directors and shareholders

The Board believes that directors can represent the interests of shareholders more effectively if they have a significant investment in TransCanada. Directors must hold at least four times their annual cash plus equity retainer in shares or DSUs within five years of joining the Board.

Directors can meet the requirements by purchasing TransCanada shares, participating in our dividend reinvestment plan or by directing all or a portion of their compensation to be paid in DSUs. We recalibrate the ownership values if the cash plus equity retainer is increased.

If their holdings fall below the minimum level because of fluctuations in our share price, we expect directors to attain the minimum threshold within a reasonable amount of time set by the Governance committee.

As President and CEO, Mr. Girling must instead meet our CEO share ownership requirement which is five times his base salary. Mr. Girling meets these ownership requirements (see page 77 for details).

As of February 28, 2017, all but three of our directors meet the share ownership requirements, as do most of our directors who have served for fewer than five years. Mr. Crétier, Ms. Salomone and Dr. Samarasekera each have five years from the date they were appointed to meet the director share ownership requirements:

Director	Date appointed	Share ownership date
Mr. Crétier	February 17, 2017	February 17, 2022
Ms. Salomone	February 12, 2013	February 12, 2018
Dr. Samarasekera	April 29, 2016	April 29, 2021

Ms. Salomone met the share ownership requirements at December 31, 2016. Director compensation was transitioned to a flat fee retainer, in lieu of meeting fees on January 1, 2017, and as a result the share ownership requirement increased from \$720,000 to \$940,000.

Deferred share units

DSUs are notional shares that have the same value as TransCanada shares. DSUs earn dividend equivalents as additional units, at the same rate as dividends paid on our shares.

Our DSU plan allows directors to choose to receive a portion of their retainers, meeting fees and travel fees in DSUs instead of cash. The plan also allows the Governance committee to use discretion to grant DSUs to directors as additional compensation (excluding employee directors such as our President and CEO). No discretionary grants of DSUs were made to directors in 2016.

Directors redeem their DSUs when they leave the Board. Directors can redeem their DSUs for cash or shares purchased on the open market.

COMPONENTS

Directors receive annual retainers, meeting fees and travel fees when applicable. They are also reimbursed for out-of-pocket expenses they incur while attending meetings, and are paid a per diem for Board and committee activities outside of our meeting schedule. Directors who are U.S. residents receive the same amounts in U.S. dollars. Mr. Girling is compensated in his role as President and CEO, and does not receive any director compensation. Both the annual Board retainer and the separate retainer for the Chair of the Board are paid in cash and DSUs according to the fee schedule below:

2016 compensation		
Retainers paid quarterly from the date the director is appointed to the Board and committees		
Board paid to each director except the Chair of the Board	\$180,000 per year (\$70,000 cash + \$110,000 in DSUs)	represented 1,904 DSUs for Canadian directors and 2,499 DSUs for U.S. directors in 2016
Chair of the Board receives a higher retainer because of his level of responsibility Flat fee (no meeting fees paid)	\$491,000 per year (\$201,000 in cash + \$290,000 in DSUs)	represented 5,021 DSUs in 2016
Committee paid to each committee member except the Chair of the committee	\$5,500 per year	
Committee Chairs receive a higher committee retainer for additional duties and responsibilities	\$20,000 per year	Audit
	\$15,000 per year	Human resources
	\$12,000 per year	Governance and health, safety and environment
Meeting fees Board and committee meetings	\$1,500 per meeting	
Travel fees if round trip travel is more than three hours	\$1,500 per round trip	
Other fees special assignments	\$1,500 (per diem for additional activities)	no other fees were paid in 2016

DSUs are credited quarterly, in arrears, using the closing price of TransCanada shares on the TSX at the end of each quarter. In 2016, all of our directors chose to receive 100 per cent of their retainer, meeting and travel fees in DSUs, except Mme. Gauthier, Ms. Salomone, Ms. Reynolds and Mr. Stewart.

Starting January 1, 2017, non-employee directors, except for the Chair of the Board, will receive a flat fee retainer of \$235,000, \$125,000 of which is paid in mandatory DSUs. Directors will no longer receive meeting fees. This change to a flat fee structure is simpler to administer, and provides a more accurate representation of the time commitment associated with serving on our Board. Our directors attend Board and special meetings, but also provide advice outside of meetings and are attentive to the best interests of TransCanada at all times. A majority of TransCanada's peers have adopted a flat fee structure. The Governance committee determined that a flat fee structure is a more appropriate form of compensation. The increase in retainer also aligns our compensation closer to the median of our peer groups.

Starting January 1, 2017, the Audit committee Chair retainer was increased by \$4,000, from \$20,000 to \$24,000, and the Human Resources committee Chair retainer was increased by \$3,000, from \$15,000 to \$18,000. These increases reflect the additional increased workload of chairing the Audit and Human Resources committees, and align our differentiated committee Chair retainer practices to the median of our peer groups.

Director compensation – 2016 details

The table below shows total director compensation awarded, credited or paid in 2016.

DIRECTOR COMPENSATION TABLE

Name	Fees earned (\$)	Share-based awards (\$)	Option-based awards (\$)	Non-equity incentive plan compensation (\$)	Pension value (\$)	All other compensation (\$)	Total (\$)
Kevin E. Benson	120,750	110,000	—	—	—	—	230,750
Derek H. Burney	134,000	110,000	—	—	—	—	244,000
Paule Gauthier (retired April 29, 2016)	46,203	36,164	—	—	—	—	82,367
S. Barry Jackson	201,000	290,000	—	—	—	38,164	529,164
John Lowe	170,311	144,441	—	—	—	—	314,752
Paula Rosput Reynolds	177,885	144,441	—	—	—	—	322,326
John Richels	169,308	144,441	—	—	—	—	313,749
Mary Pat Salomone	170,289	144,441	—	—	—	—	314,730
Indira Samarasekera (joined April 29, 2016)	83,769	74,137	—	—	—	—	157,906
D. Michael G. Stewart	128,750	110,000	—	—	—	—	238,750
Siim A. Vanaselja	143,500	110,000	—	—	—	—	253,500
Richard E. Waugh	128,250	110,000	—	—	—	—	238,250

Notes

- Mr. Lowe, Ms. Reynolds, Mr. Richels and Ms. Salomone received their share-based awards, retainers, meeting fees, travel and other fees in U.S. dollars. The values presented in this table are in Canadian dollars, which have been converted at a quarterly exchange rate of 1.2971 CAD/USD as at March 31, 2016, 1.3009 CAD/USD as at June 30, 2016, 1.3117 CAD/USD as at September 30, 2016 and 1.3427 CAD/USD as at December 31, 2016.
- Mr. Girling is compensated in his role as President and CEO, and does not receive any director compensation.
- Fees earned includes Board and committee retainers, meeting fees and travel fees paid in cash, including the portion they chose to receive as DSUs.
- Share-based awards include the portion of the Board retainer (\$110,000) and the Board Chair retainer (\$290,000) that we automatically pay in DSUs. There were no additional grants of DSUs in 2016.
- In 2016, we paid \$32,180 for third-party office and other expenses for Mr. Jackson and he received a reserved parking space valued at \$5,984.

The table below is a breakdown of director compensation by component. It includes the total fees paid in cash and the DSUs credited as at the grant date, unless stated otherwise. **DSUs credited** includes the minimum portion of the Board retainer paid in DSUs and the retainers, meeting and travel fees that directors chose to receive as DSUs in 2016.

Name	Retainers			Meeting fees		Travel	Other	Totals		
	Board (\$)	Committee (\$)	Committee Chair (\$)	Board meetings (\$)	Committee meetings (\$)	Travel fee (\$)	Strategic planning sessions (\$)	Fees paid in cash (\$)	DSUs credited (\$)	Total cash & DSUs credited (\$)
Kevin E. Benson	70,000	11,000	—	24,750	12,000	1,500	1,500	—	230,750	230,750
Derek H. Burney	70,000	5,500	12,000	24,000	12,000	9,000	1,500	—	244,000	244,000
Paule Gauthier (retired April 29, 2016)	23,077	3,626	—	10,500	6,000	3,000	—	33,577	48,790	82,367
S. Barry Jackson	201,000	—	—	—	—	—	—	—	491,000	491,000
John Lowe	91,917	14,444	—	30,432	17,755	13,812	1,951	—	314,752	314,752
Paula Rosput Reynolds	91,917	7,222	19,697	27,505	17,749	11,844	1,951	80,073	242,253	322,326
John Richels	91,917	14,444	—	31,402	17,749	11,844	1,951	—	313,749	313,749
Mary Pat Salomone	91,917	14,444	—	32,378	17,755	11,844	1,951	170,289	144,441	314,730
Indira Samarasekera (joined April 29, 2016)	47,115	7,404	—	12,750	6,000	9,000	1,500	—	157,906	157,906
D. Michael G. Stewart	70,000	5,500	12,000	24,750	13,500	1,500	1,500	128,750	110,000	238,750
Siim A. Vanaselja	70,000	5,500	20,000	24,000	12,000	10,500	1,500	—	253,500	253,500
Richard E. Waugh	70,000	11,000	—	24,750	12,000	9,000	1,500	—	238,250	238,250

Notes

- Mr. Lowe, Ms. Reynolds, Mr. Richels and Ms. Salomone received their share-based awards, retainers, meeting fees, travel and other fees in U.S. dollars. The values presented in this table are in Canadian dollars, which have been converted at a quarterly exchange rate of 1.2971 CAD/USD as at March 31, 2016, 1.3009 CAD/USD as at June 30, 2016, 1.3117 CAD/USD as at September 30, 2016 and 1.3427 CAD/USD as at December 31, 2016.
- DSUs credited include all share-based awards vested or earned by the directors in 2016. The minimum portion of the Board retainer paid in DSUs in 2016 was \$290,000 for the Chair and \$110,000 for the other directors. DSUs credited also includes the portion of the retainers, meeting fees and travel fees directors chose to receive in DSUs in 2016.
- Total cash and DSUs credited is the total dollar amount paid for duties performed on the TransCanada and TCPL Boards.
- DSUs were paid quarterly based on share prices of \$51.06, \$58.46, \$62.31 and \$60.54, the closing prices of TransCanada shares on the TSX at the end of each quarter in 2016. Directors are able to redeem their DSUs when they leave the Board.

AT-RISK INVESTMENT

The table on the following page shows:

- the total value of each director's shares and DSUs or shares of our affiliates, including the DSUs credited as dividend equivalents up to January 31, 2017
- their holdings as a percentage of their 2016 annual retainer, and
- the minimum equity investment required, as a multiple of their annual cash retainer.

The change in value represents the value of DSUs received in 2016, including dividend equivalents credited up to January 31, 2017, plus any additional shares acquired in 2016. The change in value also includes increases and decreases in market value.

As of the date of this circular, all of our directors who have served for at least five years meet the share ownership requirements, as do most of our directors that have served for fewer than five years. Mr. Crétier, Ms. Salomone and Dr. Samarasekera have five years from the date they were each appointed to meet the share ownership requirements, as described on page 58. Ms. Salomone met the share ownership requirements at December 31, 2016. Director compensation was transitioned to a flat fee retainer, in lieu of meeting fees, on January 1, 2017, and as a result the share ownership requirement increased from \$720,000 to \$940,000.

Mr. Girling meets the CEO ownership requirements under the executive share ownership guidelines. See pages 58 and 77 for more information about our share ownership requirements for directors and executives.

None of the nominated directors (or all of our directors and executives as a group) own more than one per cent of TransCanada shares, or any class of shares of its subsidiaries and affiliates.

In the table:

- **DSUs** include DSUs credited as dividend equivalents up to January 31, 2017.
- **Total market value** is the market value of TransCanada shares and DSUs, calculated using a closing share price on the TSX of \$50.83 on February 23, 2016 and \$61.06 on February 28, 2017. It includes DSUs credited as dividend equivalents up to January 31, 2017.
- Mr. Richels' holdings include 10,000 shares held in a family partnership controlled by Mr. Richels and his wife.
- Mr. Stewart's holdings include 2,129 shares held beneficially by his wife.
- Mr. Waugh's holdings include 4,220 shares held by his wife.

At-risk investment

Name	Date	Common shares	DSUs	Total common shares and DSUs	At-risk investment		Minimum investment required	
					Total market value (\$)	As a multiple of annual retainer	Total value of minimum investment (\$)	Multiple of cash & equity retainer
Kevin E. Benson	2017	13,000	68,403	81,403	4,970,467	21.15	940,000	4x
	2016	13,000	61,866	74,866	3,805,439	21.14	720,000	4x
	Change	—	6,537	6,537	1,165,028	*		
Derek H. Burney	2017	12,910	62,782	75,692	4,621,754	19.67	940,000	4x
	2016	12,318	56,230	68,548	3,484,295	19.36	720,000	4x
	Change	592	6,552	7,144	1,137,459	*		
Stéphan Crétier (joined February 17, 2017)	2017	—	—	—	—	—	940,000	4x
	2016	—	—	—	—	—	—	4x
	Change	—	—	—	—	*		
S. Barry Jackson	2017	39,000	146,772	185,772	11,343,238	23.10	1,964,000	4x
	2016	39,000	132,848	171,848	8,735,034	17.79	1,964,000	4x
	Change	—	13,924	13,924	2,608,204	*		
John E. Lowe	2017	15,000	7,952	22,952	1,401,449	5.96	940,000	4x
	2016	15,000	2,271	17,271	877,885	4.88	720,000	4x
	Change	—	5,681	5,681	523,564	*		
Paula Rosput Reynolds	2017	6,000	21,613	27,613	1,686,050	7.17	940,000	4x
	2016	6,000	16,651	22,651	1,151,350	6.40	720,000	4x
	Change	—	4,962	4,962	534,699	*		
John Richels	2017	10,000	19,998	29,998	1,831,678	7.79	940,000	4x
	2016	10,000	13,866	23,866	1,213,109	6.74	720,000	4x
	Change	—	6,132	6,132	618,569	*		
Mary Pat Salomone	2017	3,000	11,407	14,407	879,691	3.74	940,000	4x
	2016	2,000	8,512	10,512	534,325	2.97	720,000	4x
	Change	1,000	2,895	3,895	345,366	*		
Indira Samarasekera (joined April 29, 2016)	2017	—	2,652	2,652	161,931	0.69	940,000	4x
	2016	—	—	—	—	—	720,000	4x
	Change	—	2,652	2,652	161,931	*		
D. Michael G. Stewart	2017	16,651	30,928	47,579	2,905,174	12.36	940,000	4x
	2016	16,008	27,882	43,890	2,230,929	12.39	720,000	4x
	Change	643	3,046	3,689	674,245	*		
Siim A. Vanaselja	2017	12,000	12,719	24,719	1,509,342	6.42	940,000	4x
	2016	12,000	7,898	19,898	1,011,415	5.62	720,000	4x
	Change	—	4,821	4,821	497,927	*		
Richard E. Waugh	2017	29,730	23,533	53,263	3,252,239	13.84	940,000	4x
	2016	29,730	18,557	48,287	2,454,428	13.64	720,000	4x
	Change	—	4,976	4,976	797,811	*		
Total	2017	157,291	408,759	566,050	34,563,013			
	2016	155,056	346,581	501,637	25,498,209			
	Change	2,235	62,178	64,413	9,064,804			

* The value of the minimum retainer has increased from \$720,000 to \$940,000, as a result the change in *at-risk investment as a multiple of annual retainer* has been omitted because it does not show the changes in director share ownership during 2016.

INCENTIVE PLAN AWARDS

Outstanding option-based and share-based awards

The table below shows all outstanding share-based awards previously granted to the directors that were outstanding at the end of 2016. Year-end values are based on \$60.54 being the closing price of TransCanada shares on the TSX at December 31, 2016. Non-executive directors are not eligible to participate in our stock option plan and, accordingly, none of our non-executive directors have outstanding option-based awards.

Name	Number of shares or units of share-based awards that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Number of shares or units of vested share-based awards not paid out or distributed (#)	Market or payout value of vested share-based awards not paid out or distributed (\$)	Number of share-based awards vested during 2016	Share-based awards- value vested during 2016 (\$)
Kevin E. Benson	623	37,765	67,779	4,103,379	6,567	397,603
Derek H. Burney	572	34,662	62,209	3,766,171	6,573	397,960
S. Barry Jackson	1,338	81,032	145,433	8,804,562	13,990	846,994
John Lowe	72	4,390	7,879	477,027	5,632	340,992
Paula Rospot Reynolds	197	11,932	21,415	1,296,499	4,940	299,075
John Richels	182	11,041	19,815	1,199,657	6,095	369,049
Mary Pat Salomone	104	6,298	11,302	684,278	2,880	174,383
Indira Samarasekera (joined April 29, 2016)	24	1,464	2,627	159,091	2,627	159,090
D. Michael Stewart	282	17,075	30,646	1,855,309	3,058	185,162
Siim A. Vanaselja	115	7,022	12,602	762,982	4,788	289,884
Richard E. Waugh	214	12,992	23,318	1,411,673	4,956	300,062

Notes

- All share-based awards in this chart are DSUs.
- The total **Market or payout value of share-based awards that have not vested** is \$225,674 at December 31, 2016.
- **Shares or Units not vested** are dividends declared at December 31, 2016, but not payable until January 31, 2017. **Number of shares or units of share based awards that have not vested** is calculated using the closing price of TransCanada shares on the TSX at January 31, 2017 (\$61.39).
- Mme. Gauthier retired on April 29, 2016 and her remaining 66,779 share units were redeemed at \$2,061,618 on January 19, 2017.

Human Resources committee letter to shareholders

Dear Shareholder:

The Board is holding its eighth consecutive say on pay advisory vote regarding our approach to executive compensation. We are pleased with the level of shareholder support we have received to date. We are providing this letter and the accompanying compensation discussion and analysis (CD&A) to explain how the Human Resources committee and the Board have assessed the performance of the company and the executive team in 2016, and the basis on which we reached various compensation decisions for each of our named executive officers. We hope you concur with the framework and decisions the Board and the committee have reached this year regarding TransCanada's executive compensation programs and administration.

TransCanada's vision – to be the leading energy infrastructure company in North America, focusing on pipeline and power generation opportunities in regions where the company has or can develop a significant competitive advantage – has remained constant for more than a decade. This should come as no surprise because our business features long-lived, capital intensive assets, most of which are subject to regulated returns or other long-term contractual arrangements.

The leadership strives for continuous improvement and innovation each year, but the nature of the business equally requires steadfastness, stewardship and adherence to multi-year plans. Consequently, the incentives for performance must reflect continuity and long-term focus as well. You will see, as you read through this CD&A, that our compensation programs are largely unchanged in recent years. While the committee and its advisors keep abreast of compensation developments in North America, we are not inclined to chase the "design of the day". We believe our programs lead to the right outcomes. Over time, the committee has seen increasingly greater clarity in the corporate goal setting process, management holding itself to progressively higher standards and the compensation rewarded closely tracking results achieved. In some years, results have been disappointing by some measures and realized pay has been affected accordingly. In other years, such as this one, major strategic initiatives have been accomplished. These accomplishments have been reflected in higher compensation for executives this year compared to last – but also reflect growth in TransCanada's total shareholder return (TSR), as measured by share price appreciation and increased dividends.

Management builds long-term value by successfully bringing complex, long lead time projects into service and operating them profitably. Management also builds value by acquiring assets of similar character at reasonable valuations and integrating those operations into TransCanada's base businesses, as was the case in 2016. Because access to capital is essential, maintaining strength in the company's financial position is imperative and we expect management to balance short-term financial achievement with thoughtful capital management, credit quality and longer term growth and profitability. Given these parameters, management and the Board agree on an annual scorecard that features goals in the following areas: safety (always our first priority), financial performance, optimization of TransCanada's existing asset base, excellence in project management, and the development of new asset opportunities. Each year, we also agree on three-year earnings targets, with attention to free cash generation necessary to support dividend growth.

These enduring principles translate directly into TransCanada's executive compensation program. Along with ensuring that we maintain compensation sufficiently competitive to attract and retain qualified executives, we have a program where a substantial portion of compensation (>50 per cent) is tied to multi-year performance. To this end, our base pay structure is benchmarked to our peers and the targets for our annual bonus plan are similarly benchmarked. The remainder of the executive compensation package consists of long-term incentives in the form of both share unit grants, whose vesting is triggered according to pre-set performance conditions, and in the form of stock options. More detail on these programs can be found at page 78.

WHERE TO FIND IT

> Human Resources committee letter to shareholders	65
> Executive compensation discussion and analysis	68
Executive summary	68
Approach	73
Components	78
Corporate performance	86
Payout of 2014 executive share unit award	88
Executive profiles	89
> 2016 details	95
Summary compensation table	95
Incentive plan awards	98
Equity compensation plan information	101
Retirement benefits	102
Termination and change of control ..	103

The only change in our program relative to what was approved by shareholders in early 2016 has been to recognize TransCanada's reorganization into business units. We adjusted the weighting of annual awards to recognize business unit level results for those who lead business units and we have continued to evolve these weightings in 2017 to strengthen the link between business unit performance and executive pay. The preponderance of compensation opportunity remains in the long-term incentive program where rewards earned are directly related to share price performance, relative TSR and growth in comparable earnings per share (EPS) over the longer term.

Our deliberative process is as follows. Each year, the Board reviews, considers and adopts an annual plan and three-year outlook. From that plan, management develops corporate, business unit and individual goals for each upcoming year as well as the three-year cumulative EPS targets. These goals are translated into metrics for compensation purposes, which are then evaluated each year. The committee delves into the specifics, and in doing so, uses its collective experience and business judgment regarding the appropriate levels of challenge and risk to the enterprise.

2016 was a transformational year for TransCanada. Through the acquisition of Columbia Pipeline Group, Inc. (Columbia) and rationalizing of the energy portfolio, TransCanada has enhanced its business profile and future prospects. That success, coupled with the successful construction and/or operation of infrastructure in Canada, the U.S. and Mexico, has led to record comparable earnings and cash flow in 2016. Comparable earnings per share increased 12 per cent and comparable funds generated from operations were up seven per cent compared to 2015. It was a year of many challenges, but there's no doubt that shareholders have and will continue to benefit from these initiatives.

We are proud to have occupational and facility safety records that are among the best in the industry, and our pipeline and power facilities operated throughout 2016 without any major incidents. We strive for top quartile performance and achieved a 50 per cent improvement in staff and contractor days away from work, however, last March we experienced the tragic fatality of a contractor on one of our sites. This is unacceptable and as a result, the Board scored safety below target – an important signal that we must redouble our efforts on the journey to incident-free operations.

Ultimately the Board approved a Corporate factor for 2016 of 1.7, which is above target level performance and reflects overall strong performance on financial, operational and growth objectives, while recognizing the shortfall on safety. The Corporate factor was used in determining annual incentive awards for all non-union employees. The Board also approved a performance multiplier of 1.34 for the 2014 ESU grant that vested in 2016. This factor reflected relative TSR at the 67th percentile of the peer group over the three-year period ended December 31, 2016. While the Board reduces the administration of the various programs to numerical calculations, we also apply our business judgment regarding the reasonableness of the results. We concluded that 2016 was a year of considerable success and hence the rewards being conferred are not merely competitive but are appropriate.

The committee is advised by Meridian Compensation Partners as its independent consultant on all executive compensation matters. The consultant's mandate includes providing advice on compensation for the named executives, incentive design, compensation governance and pay for performance, attending all committee meetings, and providing data, analysis or opinions on compensation-related matters as requested. While the committee is ultimately responsible for making its own decisions and recommendations to the Board, the consultant brings expertise, experience, independence and objectivity to the committee's deliberations. The committee meets frequently in-camera with the consultant, thereby ensuring that the discussions regarding compensation are substantive and unconstrained. You can find additional information on the independent consultant on page 55.

Conclusion

The Board is keenly aware of our responsibility to ensure that our approach to executive compensation supports our strategy and aligns with the interests of our shareholders. The Board and committee are also aware that our decisions must be logical and understandable to our employees, shareholders, and other stakeholders. To this end, the circular includes significant detail in the CD&A section starting on the next page. We also respond to shareholder questions on an individual basis, take input from stakeholders, and continue to re-evaluate our practices to ensure that our program remains appropriate.

We thank you for your continued confidence in our company and welcome your comments or questions. You can contact the committee or the Board through the Corporate Secretary, TransCanada Corporation, 450-1 Street S.W., Calgary, Alberta T2P 5H1.

Sincerely,



Paula Rosput Reynolds
Chair, Human Resources Committee



S. Barry Jackson
Chair of the Board of Directors

Executive compensation discussion and analysis

EXECUTIVE SUMMARY

This CD&A explains our executive compensation program, our 2016 performance, the performance assessment by the Human Resources committee and the Board, and their compensation decisions for our named executives:

- Russell K. Girling, President and Chief Executive Officer
- Donald R. Marchand, Executive Vice-President and Chief Financial Officer
- Alexander J. Pourbaix, Chief Operating Officer
- Karl Johansson, Executive Vice-President and President, Natural Gas Pipelines, and
- William C. Taylor, Executive Vice-President and President, Energy.

The named executives and four other executive vice-presidents make up our executive leadership team.

Performance results

To evaluate corporate performance for 2016, the committee and the Board reviewed the results associated with the adopted scorecard. The goals involve quantitative and qualitative factors associated with safety, financial performance, execution of ongoing projects and transactions, operational performance and progress on key growth initiatives.

2016 was a “transformational” year for TransCanada, as the company undertook unprecedented growth and adjusted its business to enhance long-term stability for the benefit of our shareholders. The US \$13 billion acquisition of Columbia, together with another \$23 billion in near-term, “normal course” projects across North America has set the stage for what TransCanada expects to be steady and predictable growth in earnings and dividends through the rest of this decade.

While the Columbia acquisition was not specifically contemplated at the time we set our objectives for 2016, its impact was reflected in our performance assessment of the financial results achieved for the year and in our project execution evaluation. The acquisition, together with other significant accomplishments outlined below, resulted in above target results in most areas.

In 2016 we continued our unwavering focus of providing safe and reliable operations everywhere we do business. We are proud to have occupational and facility safety records that are among the best in the industry, and our pipeline and power facilities operated throughout 2016 without any major incidents, but we believe that no safety-related incidents are acceptable. While we continue to strive for top quartile performance and achieved a 50 per cent improvement in staff and contractor days away from work cases, we did not achieve the tough standards we set for ourselves. Last March, we experienced the tragic fatality of a contractor on one of our worksites. This is unacceptable and we have increased our already significant efforts to work with our contractors to ensure the safety of their workers on our sites. We have also reinforced our commitment to our goal of zero incidents by adopting safety as the first of our four corporate values. Moving forward, Safety, Integrity, Responsibility and Collaboration will be the guiding principles for everything we do.

Our comparable earnings per share (EPS) were \$2.78, an increase of 12 per cent over 2015 and above our target for the year. The committee evaluated the non-comparable items and concluded that the use of comparable earnings was the appropriate basis for determining EPS for scorecard purposes. Comparable funds generated from operations were also higher in 2016 than in 2015.

We secured new contracts and settlements in 2016 that will enhance revenues in future years. Key to our success in maximizing the value of existing assets was an agreement reached with our ANR customers on a tolling structure that will add significant earnings for the next six years.

We continued to progress our slate of development projects with advances on several fronts during the year. We progressed development and construction of our portfolio of near-term projects. For our \$48 billion of longer-term projects, we continued to manage costs while working to obtain the necessary permits and approvals to enable these projects to move forward once final investment decisions are made.

In addition to meeting the targets we set out related to project execution at the beginning of the year, the execution of the Columbia transaction, related financing and integration was considered under the project execution category. The committee concluded that performance in this area merited above-target recognition. The transaction closed in record time and there was an integration plan in place at closing.

Incremental to its existing asset base, the Columbia acquisition provides significant additional opportunities for growth, including the US \$2.0 billion Mountaineer Xpress pipeline, the \$1.4 billion Leach Xpress pipeline, and other potential projects for a total of US \$7.2 billion. In particular, we were awarded the Sur de Texas pipeline (our share US \$1.3 billion) and the Villa de Reyes pipeline (US \$0.6 billion) projects in Mexico.

We made significant improvements in our organization's capability to deliver on our strategy with excellence. The implementation of a new operating model and related business optimization reviews have resulted in increased clarity of accountability for results as well as more efficient, cost-effective operations. The committee determined that we had met the 2016 targets, which have driven changes that have allowed us to achieve lower sustainable cost levels that will benefit our customers and shareholders.

You can read more about 2016 performance starting on page 86.

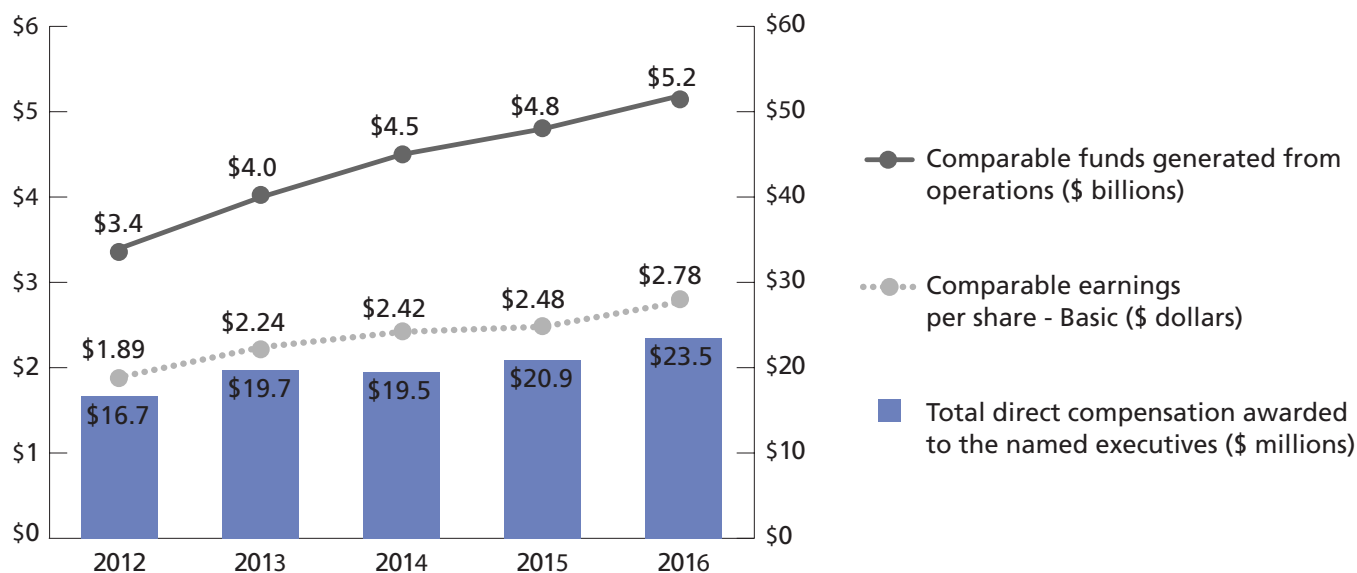
Compensation highlights

The Human Resources committee and Board made the following executive compensation decisions in 2017:

- After considering the performance results and their relative weightings, overall corporate performance for 2016 was assessed as above target with a Corporate factor of 1.7. The Corporate factor is used in the determination of the short-term incentive awards for all employees, including our named executives.
- The Board approved a performance multiplier for the 2014 grant of 1.34, according to the formula in effect when these grants were issued. This result reflects relative TSR performance at the 67th percentile of the peer group. The performance multiplier, combined with the change in valuation price from \$48.55 to \$60.48, and dividend reinvestment results in a payout that is 188 per cent of the original grant value.
- Three of our named executives received an increase to base salary to maintain competitiveness with our peer group, recognize proficiency in their roles, and reflect increases in scope of responsibility. For these executives, the average annual increase was 9 per cent. Increases are effective March 1, 2017.
- For the 2017 ESU grant, the Board approved three-year targets for comparable earnings per share and relative TSR.

Compensation vs. financial performance

The chart below compares our key financial results for the last five fiscal years to total direct compensation awarded to the named executives for the same period. Total direct compensation includes base salary, the short-term incentive award (paid in the first quarter following the performance year) and the grant value of ESU and stock option awards.



The table below shows total direct compensation awarded to our named executives as a percentage of our comparable earnings for the last five fiscal years:

	2012	2013	2014	2015	2016
Total direct compensation awarded to the named executives (as a % of comparable earnings)	1.3%	1.2%	1.1%	1.2%	1.1%

Notes

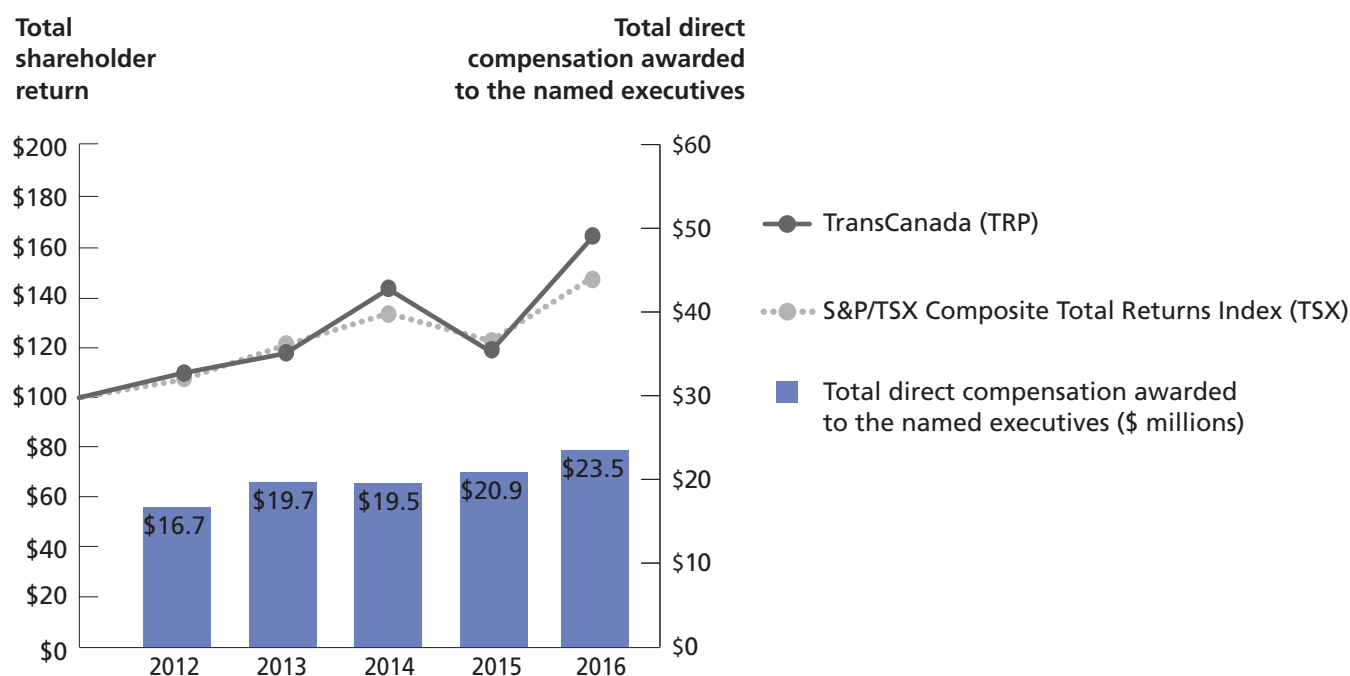
- The increase in **Total direct compensation** awarded to the named executives from 2012 to 2013 is due to base salary adjustments to reflect progression for certain named executives, higher short-term incentive awards due to strong corporate performance, and increases in long-term incentives to more closely align with median levels in the peer group. The increase from 2015 to 2016 is due primarily to higher short-term incentive awards due to strong corporate performance.
- Comparable funds generated from operations**, **Comparable earnings per share**, and **Comparable earnings** are non-GAAP measures and do not have any standardized meanings prescribed by U.S. GAAP (see **Appendix B** for more information).

Compensation vs. total shareholder return

Our TSR, the change in value of TransCanada shares plus reinvestment of dividends, has tracked favourably against the S&P/TSX Composite Total Returns Index over the last five years, delivering an annual compound return of 10.5 per cent compared to 8.2 per cent for the Index.

The chart below illustrates TSR, assuming an initial investment of \$100 in TransCanada shares as of year end 2011, and compares it to the return of the S&P/TSX Composite Total Returns Index and the trend in total direct compensation awarded to our named executives over the same period.

TSR is only one of the performance measures the Board considers when assessing performance and determining compensation for our named executives, so we do not necessarily expect there to be a direct correlation between TSR and total direct compensation awarded in a given period. In addition, the realized value of long-term compensation awarded in any given year is not guaranteed. A portion of it is equity-based, and its value is directly affected by changes in our share price.



At year end	2011	2012	2013	2014	2015	2016	Compound annual return
TRP	\$100.00	\$109.85	\$117.79	\$143.66	\$118.29	\$164.93	10.5%
TSX	\$100.00	\$107.19	\$121.11	\$133.90	\$122.76	\$148.64	8.2%

Note

- The increase in **Total direct compensation** awarded to the named executives from 2012 to 2013 is due to base salary adjustments to reflect progression for certain named executives, higher short-term incentive awards due to strong corporate performance, and increases in long-term incentives to more closely align with median levels in the peer group. The increase from 2015 to 2016 is due primarily to higher short-term incentive awards due to strong corporate performance.

Program changes

The Board approved the following changes in 2016:

- For the ESU plan, the Board adopted a provision that the cumulative comparable earnings per share multiplier will be a maximum of 1.0 if the ratio of cumulative dividends per share/cumulative comparable funds generated from operations per share for the three year period is greater than 50 per cent. This amendment was made to ensure that rewards will be limited if the Board deems that cash cover to sustain the dividend has diminished.
- Increased the number of common shares reserved for issuance under the stock option plan to allow for grants to be made over the next three years, as approved by shareholders.
- Modified the performance measure relative weightings for the named executives, other than the CEO, under the short-term incentive plan to reflect organizational changes.
- Modified the formula for the CEO's short-term incentive award by removing the individual performance factor and weighting the award 100 per cent on corporate performance.

Additionally, the Board approved the following changes in 2017:

- Further modified the performance measure relative weightings for certain named executives under the short-term incentive plan to strengthen the link between corporate/business unit performance and executive pay.

The Board believes these changes ensure that our executive compensation program continues to meet our key compensation objectives as outlined in the next section.

APPROACH

TransCanada's executive compensation program is designed to meet four key objectives:

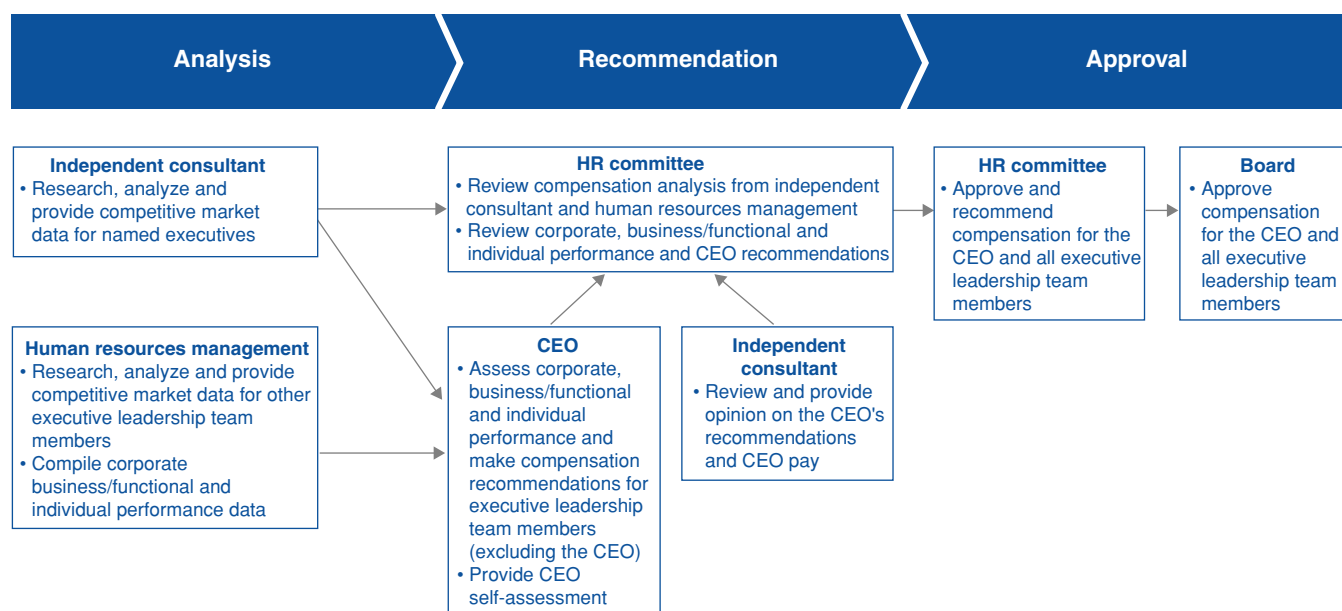
- provide a compensation package that 'pays for performance' by rewarding executives for delivering on our corporate objectives and achieving our overall strategy
- offer levels and types of compensation that are competitive with the market
- align executives' interests with those of our various stakeholders, and
- attract, engage and retain our executives.

Compensation is also aligned with our risk management processes to ensure there is an appropriate balance between risk and reward. See pages 53 and 54 for more information.

Decision-making process

We follow a comprehensive decision-making process that involves management, the Human Resources committee and the Board, and takes into account market data, input from the CEO and advice from the committee's independent consultant.

The Board makes all decisions affecting executive leadership team compensation based on the committee's recommendations.



Compensation analysis

Assessing the market

The independent consultant to the committee analyzes and provides relevant market data and other information to the committee and the Board. This process includes benchmarking executive compensation against a peer group of companies (see ***Benchmarking*** on pages 75 and 76).

The committee and Board also consider compensation relative to other executives, scope and criticality of the role and experience when determining compensation levels. The committee uses the benchmarks as a guideline, recognizing that there can be dispersion among individual company's data and that the committee must also be mindful of the broader environment as it weighs adjustments.

Determining performance objectives

The Board approves annual corporate objectives to support our core strategies for operating safely and efficiently, achieving growth and creating value for shareholders. Our corporate performance scorecard incorporates these objectives, including a combination of financial, operational, safety, and growth measures which are weighted and approved by the Board.

The Board establishes annual performance objectives and relative weightings for the CEO and the other named executives. The CEO's performance objectives are reflected in the corporate scorecard. Performance objectives for the other named executives include the corporate scorecard, business/functional scorecards aligned to their roles, as well as their individual key performance areas and priorities for the year.

Recommendation

The committee and the Board assess the performance of the company and of the CEO.

The CEO assesses the performance of his direct reports, including the other named executives, obtains input from the Board on executive performance, and makes compensation recommendations to the committee.

The committee recommends compensation awards for the CEO and other named executives to the Board. The committee seeks advice from its independent consultant and other advisors, but is responsible for making its own decisions and recommendations to the Board.

The committee bases its recommendations on the relevant performance period. Although it reviews historical information on the value of previous grants, it does not make adjustments to any performance-related measures based on the number, term or current value of any outstanding compensation previously awarded or gains an executive may have realized in prior years. Similarly, the committee does not take into account the value of long-term incentive awards it grants in a given year to offset less-than-expected returns from awards granted in prior years. The committee believes that reducing or limiting grants or awards based on prior gains could detract from the integrity of the performance-based framework or undermine the incentives for executives to deliver strong performance.

Approval

The Board reviews the recommendations by the committee and approves all executive leadership team compensation decisions.

Benchmarking

We benchmark our executive compensation against a peer group of companies to assess the competitive market. Each year, the committee reviews the companies with its independent consultant, makes adjustments as it deems appropriate, and approves the peer group.

The peer group for the named executives reflects:

- the size of TransCanada relative to the peer companies
- a broader sample size which reduces potential volatility in the data
- the scope of TransCanada's North American business activities, and
- the broader market from which TransCanada competes for executive talent.

Our 2016 peer group for our named executives is listed below. The committee made minor adjustments to the peer group from 2015. Talisman Energy Inc. was removed as it is no longer a public company and Hess Corporation was removed to maintain the 50-50 weighting between Canadian and U.S. companies.

Named executive peer group	
American Electric Power Co.	Imperial Oil Ltd.
Canadian National Railway Company	Kinder Morgan Inc.
Canadian Natural Resources Ltd.	NextEra Energy Inc.
Cenovus Energy Inc.	Occidental Petroleum Corporation
Dominion Resources Inc.	PG&E Company
Enbridge Inc.	Southern Company
Encana Corporation	Spectra Energy Corp.
Exelon Corporation	Suncor Energy Inc.
Fortis Inc.	Teck Resources Ltd.
Husky Energy Inc.	Williams Companies Inc.

We benchmark each named executive position against similar positions in the peer group. The committee recognizes that even with a relatively large peer group, the results can be skewed by changes in the underlying market data. As a result, the committee exercises judgment in the interpretation of the data and are guided by the independent consultant in this regard. Competitive market data for the peer group provides an initial reference point for determining executive compensation.

Profiles At December 31, 2015	TransCanada	Named executive peer group	
		Median	75th percentile
Assets	\$64.4 billion	\$61.0 billion	\$81.9 billion
Revenue	\$11.3 billion	\$16.2 billion	\$22.4 billion
Market capitalization at December 31, 2016 (Monthly closing price of shares x shares outstanding for the most recent quarter)	\$52.3 billion	\$40.9 billion	\$63.7 billion
Employees	5,512	10,550	15,376

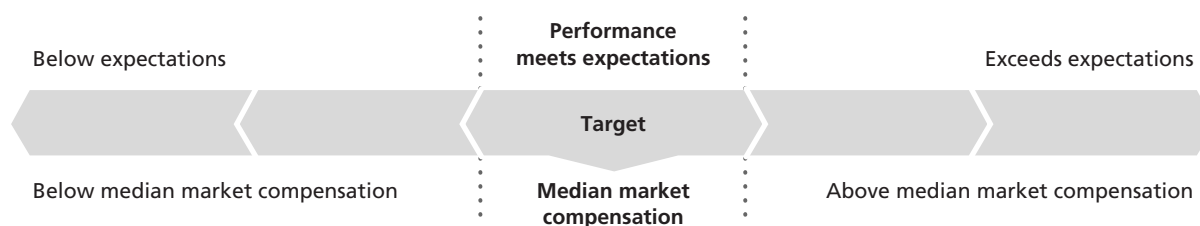
Note

- **Peer group** scope information reflects 2015 data, unless otherwise noted, as this was the most current information available at the time the analysis was performed. For comparability, the **TransCanada** scope information also reflects 2015 data.

For 2017, the committee made minor adjustments to the peer group. Encana Corporation was removed because of its relative small size against multiple criteria. Spectra Energy Corp. was removed because it was being acquired. Again, the committee preserved the balance between Canadian and U.S. companies.

TransCanada is at the top end of the range by asset size and market capitalization and the median in terms of revenue.

Total direct compensation is generally set within a competitive range of the market median:



See **Components** on page 78 for more information about total direct compensation.

Aligning the interests of executives and shareholders

We have share ownership requirements to align the interests of our executives and shareholders. The minimum requirements are significant and vary by executive level. The ownership requirements are:

Executive level	Required ownership (multiple of base salary)
Chief Executive Officer	5x
Executive Vice-Presidents	2x
Senior Vice-Presidents	1x

Effective for 2015, the Board approved an increase in the share ownership requirement for the CEO to five times base salary, and determined that all executives must meet their ownership requirements through direct ownership of shares of TransCanada or units of TC PipeLines, LP only. Prior to this, up to 50 per cent could be held in the form of unvested ESUs.

Executives have five years to meet the requirement. Executives, including the CEO, must 'buy and hold' 50 per cent of all stock options they exercise until they meet their share ownership requirement.

The committee reviews share ownership levels for each executive every year. It may use its discretion when assessing compliance if ownership levels fall below the minimum because of fluctuations in share price.

All of the named executives met their share ownership requirements in 2016, with the exception of Mr. Taylor who has until the end of 2020 to replace the value previously satisfied through unvested ESUs.

See the *Executive profiles* starting on page 90 for current share ownership levels.

COMPONENTS

Total direct compensation includes fixed and variable pay. Base salary is the only form of fixed compensation. Variable compensation includes our short and long-term incentive plans.

Element	Form	Performance period	Objective
Base salary (fixed)	Cash	<ul style="list-style-type: none"> One year 	<ul style="list-style-type: none"> Provide base compensation commensurate with the role Attract and retain executives
Short-term incentive (variable)	Cash	<ul style="list-style-type: none"> One year 	<ul style="list-style-type: none"> Motivate executives to achieve key annual business objectives Reward executives for relative contribution to TransCanada Align interests of executives and shareholders Attract and retain executives
Long-term incentive (variable)	ESUs	<ul style="list-style-type: none"> Three-year term Vesting at the end of the term Awards subject to a performance multiplier based on pre-established targets 	<ul style="list-style-type: none"> Motivate executives to achieve medium-term business objectives Align interests of executives and shareholders Attract and retain executives
	Stock options	<ul style="list-style-type: none"> Seven-year term One third vest each year beginning on the first anniversary of the grant date 	<ul style="list-style-type: none"> Motivate executives to achieve long-term sustainable business objectives Align interests of executives and shareholders Attract and retain executives

We also offer indirect compensation which includes retirement benefits, other benefits and perquisites. See pages 84 and 85 for more information.

Fixed compensation

Base salary

Base salaries for executive positions are generally aligned within a competitive range of median base salary levels in our peer group. The independent consultant to the committee analyzes and provides relevant market data to the committee and the Board.

Increases in base salary for the named executives are based on their performance, competitive market data, experience in and scope of the role and compensation relative to other executives at TransCanada. Base salary adjustments are typically effective March 1.

Variable or at-risk compensation

Variable compensation accounts for a significant portion of executive pay, and increases by executive level.

Short-term incentive

The short-term incentive plan is designed to attract and retain executives, and motivate them to achieve key annual business objectives. It rewards executives for their contributions to TransCanada and aligns interests of executives with shareholders.

Market data is used to establish short-term incentive targets for each executive role. Target awards are expressed as a percentage of base salary and are determined with reference to median market levels in our peer group. While targets are reviewed annually against the competitive market data, they are not expected to change year-to-year unless the role changes or is reassessed against market conditions.

Annual cash awards are made to the named executives based on a formula that takes into account:

- base salary and the short-term incentive target, expressed as a percentage of base salary, for each role
- performance against business/functional and individual objectives, expressed as an individual performance factor determined for each named executive, and
- performance against corporate performance objectives, expressed as the Corporate factor.

The CEO's performance objectives are reflected 100 per cent in the corporate scorecard and his short-term incentive award is based 100 per cent on corporate performance.

$$\begin{array}{c} \text{Base} \\ \text{salary} \end{array} \times \begin{array}{c} \text{Short-term} \\ \text{incentive} \\ \text{target} \end{array} \times \left[\left(\begin{array}{c} \text{Business/functional and} \\ \text{individual performance} \\ \text{factor} \end{array} \times \begin{array}{c} \text{Business/functional} \\ \text{and individual} \\ \text{weighting} \end{array} \right) + \left(\begin{array}{c} \text{Corporate} \\ \text{performance} \\ \text{factor} \end{array} \times \begin{array}{c} \text{Corporate} \\ \text{weighting} \end{array} \right) \right] = \begin{array}{c} \text{Short-term} \\ \text{incentive award (\$)} \end{array}$$

Awards can range from 0 to 200 per cent of the short-term incentive target based on the level of corporate and business/functional and individual performance. Awards will generally be 50 per cent of the target if performance meets threshold standards, 100 per cent for target performance, and 200 per cent of the target for exceptional performance relative to pre-determined standards. There is no payout if overall performance is below the threshold.

The corporate and business/functional and individual factors are weighted for each executive and then added together to determine the overall award. The Board can adjust the calculated short-term incentive awards up or down at its discretion to take into account other factors when it believes it is appropriate to do so. Short-term incentive awards are paid as a lump sum cash payment in March following the performance year.

Awards for 2016 were based on the following target levels and performance measure relative weightings.

Effective for 2017, performance measure relative weightings were modified to reflect changes as follows:

Short-term incentive target (% of base salary)	Performance measure relative weighting						
	2016				2017		
	Corporate	Business unit	Individual		Corporate	Business unit	Individual
President & Chief Executive Officer (Russell K. Girling)	100%	100%	—	—	100%	—	—
Executive Vice-President & Chief Financial Officer (Donald R. Marchand)	65%	60%	—	40%	80%	—	20%
Chief Operating Officer (Alexander J. Pourbaix)	80%	80%	—	20%	80%	—	20%
Executive Vice-President & President, Natural Gas Pipelines (Karl Johannson)	65%	40%	40%	20%	60%	40%	—
Executive Vice-President & President, Energy (William C. Taylor)	65%	40%	40%	20%	60%	40%	—

Effective January 1, 2017, the target annual incentive for Mr. Girling was increased from 100% to 120%.

Long-term incentive

Each year, the committee and the Board grant long-term incentive awards to the named executives based on median market levels, and potential to contribute to TransCanada's future success.

The allocation of long-term incentive awards for our executive leadership team is 50 per cent each to ESUs and stock options.

Executive share units

These are notional share units granted under the ESU plan. ESUs accrue dividend equivalents and vest on December 31 at the end of the three-year performance period. The payout depends on how well we perform against targets established at the beginning of the period.

ESU awards are paid out in a lump sum cash payment in the first quarter following the end of the performance period.

Number of ESUs vesting	x	Valuation price on the vesting date	x	Performance multiplier	=	ESU payout (\$)
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Notes

- **Number of ESUs vesting** is the number of ESUs originally granted plus ESUs earned as dividend equivalents during the three-year performance period. Dividends and ESUs vest at the same time and only to the same extent that the underlying ESUs vest.
- **Valuation price on the vesting date** is the volume-weighted average closing price of TransCanada shares for the 20 trading days immediately prior to and including the vesting date (December 31).

2017 Executive share unit grant

The committee and the Board approved a 2017 ESU grant as follows:

Performance measure	Weighting	Measurement period
Relative TSR against the S&P/TSX 60 Index	25%	January 1, 2017 to December 31, 2019
Relative TSR against the ESU peer group	25%	
Comparable earnings per share	50%	

The cumulative **Comparable earnings per share** multiplier will be a maximum of 1.0 if the ratio of cumulative dividends per share/cumulative comparable funds generated from operations per share for the three-year period is greater than 50 per cent.

We have two peer groups for assessment of relative TSR. The first group is the S&P/TSX 60 Index, a group of publicly-traded peer companies that represents competitors for shareholder investment. The second group is the ESU peer group, consisting of specific business competitors as shown below.

2017 ESU grant peer group for relative TSR		
AltaGas Ltd.	Enbridge Inc.	Pembina Pipeline Corp.
Canadian Utilities Ltd.	Enterprise Products Partners L.P.	Sempra Energy
CenterPoint Energy Inc.	Fortis Inc.	Veresen Inc.
Dominion Resources Inc.	Inter Pipeline Ltd.	Williams Companies Inc.
Emera Inc.	Kinder Morgan Inc.	

2014 Executive share unit award

For the 2014 ESU grant, the performance multiplier was determined based on the guidelines in the table below.

Relative TSR is calculated using the twenty-day volume weighted average share price at the end of the three-year performance period.

If TransCanada's relative TSR is	Then the performance multiplier is	
At or below the 25th percentile of the ESU peer group (threshold)	0.50	We calculate the performance multiplier using a straight-line interpolation if performance is between: <ul style="list-style-type: none">• threshold and target, or• target and maximum
At the 50th percentile of the ESU peer group (target)	1.00	
At or above the 75th percentile of the ESU peer group (maximum)	1.50	

For more details on the ESU payout, see *Payout of 2014 executive share unit award* on page 88 and 89.

Stock options

Shareholders first approved our stock option plan in 1995, and the most recent version of the plan was last approved by shareholders in 2016. The plan is administered by the Human Resources committee, which is composed entirely of independent directors. The total number of shares that can be reserved for issuance to insiders, or issued to insiders at any time and within any one-year period, under any of our security based compensation arrangements (as defined in the TSX Company Manual), is limited to 10 per cent or less of our issued and outstanding shares. Non-executive directors are not eligible to participate in the plan.

Vesting

Stock options vest one third each year, beginning on the first anniversary of the grant date and have a seven-year term.

Executives are limited to trading TransCanada shares in four windows (known as **open trading windows**), which are designated quarterly. The open trading windows relate to the completion and disclosure of quarterly and annual financial reports.

Executives are not permitted to trade when they are in possession of material, non-public information. If the expiry date of a stock option does not fall during an open trading window, or falls within the first five days of an open trading window, the expiry date is extended to 10 business days after the next window opens. Similar extensions apply when there is a special trading blackout imposed during one of the four open trading windows and stock options expire during the trading blackout.

Exercise price

The exercise price of an option is the closing market price of TransCanada shares on the TSX on the last trading day immediately preceding the grant date. Option holders only benefit if the market value of our shares exceeds the exercise price at the time they exercise the options. We do not provide financial assistance to plan participants in connection with the exercise of options.

Adjustments

The number of shares subject to an option will be adjusted under the terms of the plan when exercised if, before the exercise of any option:

- the shares are consolidated, subdivided, converted, exchanged, reclassified or in any way substituted, or
- a stock dividend that is not in place of an ordinary course cash dividend is paid on the shares.

More about the stock option plan

Options cannot be transferred or assigned to another person. A personal representative can exercise options on behalf of the holder if he or she dies or is incapacitated.

The committee has the authority to suspend or discontinue the plan at any time without shareholder approval. Management does not have this right, and cannot make changes to the plan. The committee can recommend to the Board for approval certain amendments to the plan, or any stock option grant without shareholder approval, provided they are to:

- clarify an item
- correct an error or omission
- change the vesting date of an existing grant, or
- change the expiry date of an outstanding option to an earlier date.

The committee cannot make any amendments to the plan that adversely affect the holders' rights relating to any previously granted options without their consent.

The plan requires certain amendments to be approved by shareholders, including:

- increasing the number of shares available for issue under the plan
- lowering the exercise price of a previously granted option
- canceling and reissuing an option
- permitting options to be transferable or assignable other than for normal estate settlement purposes
- changing the categories of individuals eligible to participate in the plan
- providing financial assistance to a participant in connection with the exercise of options
- extending the expiry date of an option, or
- changing the types of amendments that require shareholder approval.

For more details on stock options, see ***Equity compensation plan information*** on page 101.

See the ***Compensation on termination*** table on page 104 and 105 for the effect of certain employment events on participants' entitlements under the plan.

Retirement benefits

Defined benefit plan

Our Canadian defined benefit (DB) plan includes a registered pension plan and a supplemental pension plan for eligible employees.

Participation in the DB plan is mandatory once an employee has 10 years of continuous service. All of the named executives participate in the DB plan.

Normal retirement for participants is when they turn 60, or between 55 and 60 if their age and years of continuous service add up to 85 points. The retirement benefit at normal retirement age is calculated as follows:

$$\left(\begin{array}{l} 1.25\% \text{ of employee's highest} \\ \text{average earnings (up to the final} \\ \text{average YMPE)} \end{array} + \begin{array}{l} 1.75\% \text{ of employee's highest} \\ \text{average earnings (above the final} \\ \text{average YMPE)} \end{array} \right) \times \begin{array}{l} \text{Credited} \\ \text{service} \end{array} = \begin{array}{l} \text{Annual retirement} \\ \text{benefit (\$)} \end{array}$$

Notes

- **Highest average earnings** is the average of an employee's best 36 consecutive months of pensionable earnings in their last 15 years of employment. **Pensionable earnings** means an employee's base salary plus the annual short-term incentive award up to a pre-established maximum, expressed as a percentage of base salary. For 2016, this is 100 per cent for the CEO, and between 60 to 80 per cent for the other named executives. Pensionable earnings do not include any other forms of compensation.
- **YMPE** is the Year's Maximum Pensionable Earnings under the Canada/Québec Pension Plan.
- **Final average YMPE** is the average of the YMPE in effect for the latest calendar year from which earnings are included in **Employees' highest average earnings** calculation plus the two previous years.
- **Credited service** is the employee's years of credited pensionable service in the plan. Registered DB plans are subject to a maximum annual benefit accrual under the **Income Tax Act** (Canada). As this is currently \$2,914 for each year of credited service, participants cannot earn benefits in the registered plan on any compensation that is higher than approximately \$182,000 per year.

Participants can retire between 55 and 60, but the benefit is reduced by 4.8 per cent per year for each year until they reach age 60 or 85 points, whichever is earlier. They can retire 10 years prior to normal retirement age, however the benefit is reduced by an actuarial equivalence from age 55.

Although our DB plan is non-contributory, participants can decide to make pension contributions to an enhancement account for buying ancillary or 'add on' benefits within the registered pension plan. The DB plan is integrated with the Canada/Québec Pension Plan benefits.

Supplemental pension plan

The DB pension plan uses a hold harmless approach, where the maximum amount allowed under the *Income Tax Act* (Canada) is paid from the registered pension plan and the remainder is paid from the supplemental pension plan. The supplemental pension plan is funded through a retirement compensation arrangement under the *Income Tax Act* (Canada). Currently there are approximately 670 participants in the supplemental pension plan (with pensionable earnings exceeding approximately \$182,000 per year) including the named executives.

Contributions to the fund are subject to Board approval, and are based on an actuarial valuation of the supplemental pension plan obligations each year.

Effective 2012, solely at the discretion of the Board, our funding practice for the supplemental pension plan was revised to align it generally with the registered pension plan wherein annual funding approximates current year service cost accruals and the five-year amortization of deficits.

The DB plan does not generally recognize past service, but the committee has used its discretion in the past to grant additional years of credited service to senior executives under the supplemental pension plan. See the *Defined benefit pension plan* table and footnotes on page 102 for details.

All pension plan participants, including our named executives, receive the normal form of pension when they retire:

- monthly pension for life, and 60 per cent is paid to the spouse after the employee dies, or
- if the employee is not married, the monthly pension is paid to the employee's beneficiary or estate for the balance of the 10 years, if the employee dies within 10 years of retirement.

Participants can choose a different form of payment, but must complete waivers, as required by law. Options include:

- increasing the percentage of the pension value that continues after they die
- adding a guarantee period to the pension, or
- transferring the lump sum commuted value of the registered pension plan to a locked-in retirement account up to certain tax limits and the excess is paid in cash. Subject to company discretion, the supplemental pension plan commuted value may also be transferred and paid in cash.

Other benefits

All employees, including the named executives, receive other benefits such as traditional health and welfare programs that are based on competitive market practices and help to attract and retain talent.

Perquisites

Named executives receive a limited number of perquisites, including:

- a flexible perquisite allowance of \$4,500 that the named executive can use at his discretion
- a limited number of luncheon and/or recreational club memberships, based on business needs
- a reserved parking space valued at \$5,984, and
- an annual car allowance of \$18,000.

All perquisites provided to the named executives have a direct cost to TransCanada and are valued on this basis.

CORPORATE PERFORMANCE

The following summarizes our 2016 corporate performance against annual objectives.

You can find definitions of these terms and more information about our financial and business performance in our 2016 MD&A on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

	2016 target	2016 result	Rating (0-2.0)	Weighting	Factor
1. Financial					
Comparable earnings per share	\$2.55	\$2.78	2.0	20%	0.4
Comparable funds generated from operations (millions)	\$4,371	\$5,171			
2. Safety and asset integrity	Various targets	Partially met	0.9	10%	0.1
3. Maximizing value of existing asset base	\$100 million of incremental annual long-term value	Exceeded	2.0	20%	0.4
4. Project execution	Various targets	Exceeded	1.6	20%	0.3
5. Grow asset base	\$3 - \$5 billion	Exceeded	2.0	20%	0.4
6. Organizational capability	Various targets	Met	1.0	10%	0.1
Overall Corporate factor				100%	1.7

Notes

- The committee evaluated all non-comparable adjustments to 2016 EPS and funds generated from operations and concluded that they are non-recurring items or unrealized gains/losses and it is therefore appropriate to exclude them in evaluating performance against scorecard targets.
- Comparable earnings per share** as reported by the company was \$2.78, calculated as follows:

Net (loss)/income per common share	\$0.16
Ravenswood goodwill impairment	0.86
Loss on disposal of U.S. Power assets	1.15
Alberta PPA terminations and settlement	0.32
Acquisition related costs - Columbia	0.37
Keystone XL income tax recoveries	(0.04)
Keystone XL asset costs	0.06
Restructuring costs	0.02
Risk management activities	(0.12)
Comparable earnings per share	<u>\$2.78</u>

- We calculate both *Net income per common share* and *Comparable earnings per share* based on the weighted average number of our shares outstanding (864 million in 2016).
- Comparable earnings per share* and *Comparable funds generated from operations* are non-GAAP measures and do not have any standardized meaning as prescribed by U.S. GAAP (see **Appendix B** for more information).

The Board approved a Corporate factor of 1.7, which is above target level performance. The Corporate factor was used in determining the 2016 annual incentive awards for all non-union employees.

The Board considered the strong performance of the company related to objectives set out at the beginning of the year, as well as the transformational Columbia acquisition in determining the Corporate factor. The following provides context for the performance ratings in the table above:

Key performance areas	2016 results
Financial	<ul style="list-style-type: none"> Comparable earnings per share were higher than target due largely to the Columbia acquisition. In determining the financial performance rating, the Board excluded the impact of non-comparable earnings that are not related to the underlying operations of the business in the year. Comparable funds generated from operations were higher than target.
Safety	<ul style="list-style-type: none"> We did not achieve our employee and contractor safety targets. We had a contractor fatality. We met or exceeded our asset integrity targets (minimizing pipeline leaks and ruptures) and achieved a 50 per cent improvement in staff and contractor away from work cases.
Maximizing value of existing asset base	<ul style="list-style-type: none"> We secured contracts and settlements with customers that will add significant operating earnings and cash flows in future years. Of note is the ANR rate case settlement.
Project execution	<ul style="list-style-type: none"> Notable progress was made on our industry-leading portfolio of commercially secured projects, which now totals \$71 billion and includes \$23 billion in near-term projects that are expected to drive earnings and cash flow growth as they come on stream largely through 2018. We completed the Columbia acquisition, including related financing, asset divestitures and integration.
Grow asset base	<ul style="list-style-type: none"> We captured over \$20 billion including the Columbia acquisition and new pipeline development opportunities.
Organizational capability	<ul style="list-style-type: none"> The implementation of a new operating model and related business reviews have resulted in increased clarity of accountability for results as well as more efficient, cost-effective operations. The efforts in each of our business areas have driven changes that have allowed us to achieve lower sustainable cost levels that will benefit our customers and shareholders.

PAYOUT OF 2014 EXECUTIVE SHARE UNIT AWARD

Performance multiplier

The ESU award granted in 2014 vested on December 31, 2016, and will be paid in March 2017. This award provided for a performance multiplier from 0.5 to 1.5 based on the Board's assessment of how the company performed in terms of relative total shareholder return targets over the course of the three-year period. ESU payouts were calculated using a performance multiplier of 1.34, based on the following result:

Measure	Period	Performance level targets for 2014 ESU award			Actual performance	Multiplier
		Threshold	Target	Maximum		
Relative TSR against the peer group (see below)	January 2014 to December 2016	at or below the 25th percentile	50th percentile	at least the 75th percentile	P67	1.34

Notes

- **Relative TSR** is calculated using \$60.48, the twenty-day volume weighted average closing price of TransCanada shares on the TSX at December 31, 2016. Our absolute TSR performance was 43.6 per cent.

Our peer group for relative TSR for the 2014 ESU award consisted of a group of publicly-traded peer companies that represented investment opportunities for equity investors seeking exposure to the North American pipeline, power and utility sector.

2014 ESU grant peer group for relative TSR		
Canadian Utilities Ltd.	Enbridge Inc.	Sempra Energy
Dominion Resources Inc.	Entergy Corporation	Southern Company
DTE Energy Co.	Exelon Corporation	Spectra Energy Corporation
Duke Energy Corporation	Fortis Inc.	TransAlta Corporation
Emera Inc.	PG&E Company	Xcel Energy Inc.

Awards to named executives

The table below is a summary of the details of the original 2014 ESU award and the amount paid to each named executive when the award vested at the end of 2016.

	2014 ESU award		2014 ESU payout			
	Number of ESUs granted	Value of ESU award (\$)	Number of ESUs vesting (includes dividend equivalents to December 31, 2016)	Performance multiplier	Value of ESU payout (\$)	% of original award
Russell K. Girling	50,205.973	2,437,500	56,483.431	1.34	4,577,598	188%
Donald R. Marchand	17,739.444	861,250	19,957.479		1,617,418	
Alexander J. Pourbaix	28,836.251	1,400,000	32,441.759		2,629,184	
Karl Johansson	15,576.725	756,250	17,524.345		1,420,229	
William C. Taylor	8,238.929	441,800	9,269.069		791,860	

Notes

- **Number of ESUs granted** is the value of the ESU award divided by the valuation price of \$48.55 (the volume-weighted average closing price of TransCanada shares on the TSX for the five trading days immediately prior to and including the grant date (January 1, 2014)).
- **Number of ESUs vesting** includes an equivalent number of units for the final dividend that is declared as of December 31, 2016 but which has not been paid at the vesting date. The final dividend value is awarded in cash and has been converted to units and is reflected under **Number of ESUs vesting**.
- **Value of ESU payout** is calculated using the valuation price of \$60.48 (the volume-weighted average closing price of TransCanada shares on the TSX for the twenty trading days immediately prior to and including the vesting date (December 31, 2016)).
- The **Value of ESU award** for Mr. Taylor is expressed here in Canadian dollars based on the Bank of Canada's average annual exchange rate of 1.1045 CAD/USD for 2014. The **Value of ESU payout** for Mr. Taylor is split for the portion of the term that he was on assignment in the U.S. The portion of the award in U.S. dollars is expressed here in Canadian dollars based on the Bank of Canada's average annual exchange rate of 1.3248 CAD/USD for 2016.

EXECUTIVE PROFILES

This next section profiles each of the named executives, including their key results in 2016, details of their compensation for 2016 and the two previous fiscal years, and their share ownership as at December 31, 2016.



Russell K. Girling

PRESIDENT AND CHIEF EXECUTIVE OFFICER

Mr. Girling is responsible for our overall leadership and vision in developing with our Board our strategic direction, values and business plans. This includes overall responsibility for operating and growing our business while managing risk to create long-term sustainable value for our shareholders.

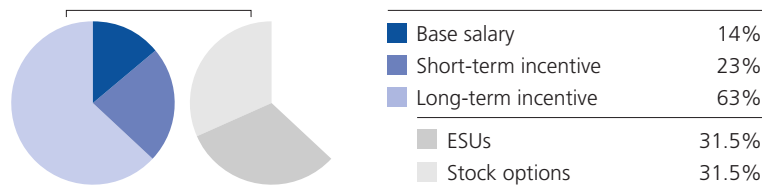
2016 Key results

- Record comparable earnings and comparable funds generated from operations
- Transformational US\$13 billion acquisition of Columbia
- Increased portfolio of near-term infrastructure growth projects to \$23 billion
- Led Business Transformation effort to increase organizational efficiency and effectiveness
- Delivered total shareholder return of 39.4%

- Mr. Girling's short-term incentive award was based 100 per cent on corporate performance.
- The short-term incentive award for 2016 performance was based on Mr. Girling's target of 100 per cent of base salary.
- Mr. Girling's 2016 short-term and long-term incentive awards as a percentage of 2016 base salary were 170 per cent and 462 per cent, respectively.

Compensation (as at December 31)	2016	2015	2014
Fixed			
Base salary	\$1,300,008	\$1,300,008	\$1,300,008
Variable			
Short-term incentive	2,210,014	1,560,000	1,690,000
Long-term incentive			
ESUs	3,000,000	2,800,000	2,437,500
Stock options	3,000,000	2,800,000	2,437,500
Total direct compensation	\$9,510,022	\$8,460,008	\$7,865,008
Change from last year	12%	8%	—

2016 Pay mix



Share ownership

Short-term incentive is attributed to the noted financial year, and is paid by March 15 of the following year.

Share ownership is based on the 20-day volume-weighted average closing price on the TSX of \$60.48 for TransCanada shares as at December 31, 2016.

Minimum level of ownership	Minimum value	Ownership under the guidelines	
		TransCanada shares	Total ownership as a multiple of base salary
5x	\$6,500,040	\$12,572,401	9.7x



Donald R. Marchand

EXECUTIVE VICE-PRESIDENT AND CHIEF FINANCIAL OFFICER (Executive Vice-President, Corporate Development and Chief Financial Officer to January 31, 2017)

Mr. Marchand is responsible for all corporate financial affairs of the company including financial reporting, taxation, finance, treasury, risk management and investor relations.

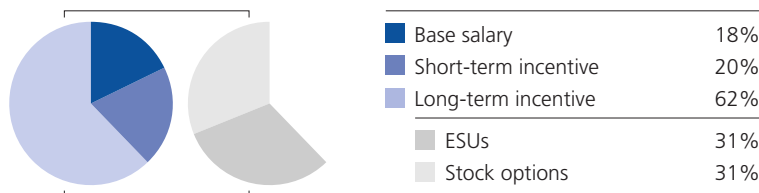
2016 Key results

- Transformational US\$13 billion acquisition of Columbia
- Sale of U.S. Northeast Power assets and agreement to buy-in public float of Columbia Pipeline Partners LP
- Record \$14 billion of capital markets funding plus arrangement of US\$7 billion acquisition bridge facilities on compelling terms
- 'A' grade credit ratings maintained
- Active, targeted investment community outreach program to advance knowledge and understanding of corporate strategy and events

- Mr. Marchand's short-term incentive award was based on a combination of corporate performance (60 per cent) and individual performance (40 per cent).
- The short-term incentive award for 2016 performance was based on Mr. Marchand's target of 65 per cent of base salary.
- Mr. Marchand's 2016 short-term and long-term incentive awards as a percentage of 2016 base salary were 113 per cent and 350 per cent, respectively.

Compensation (as at December 31)	2016	2015	2014
Fixed			
Base salary	\$575,004	\$575,004	\$530,004
Variable			
Short-term incentive	650,330	448,550	465,100
Long-term incentive			
ESUs	1,006,250	934,375	861,250
Stock options	1,006,250	934,375	861,250
Total direct compensation	\$3,237,834	\$2,892,304	\$2,717,604
Change from last year	12%	6%	—

2016 Pay mix



Share ownership

Short-term incentive is attributed to the noted financial year, and is paid by March 15 of the following year.

Share ownership is based on the 20-day volume-weighted average closing price on the TSX of \$60.48 for TransCanada shares as at December 31, 2016.

Minimum level of ownership	Minimum value	Ownership under the guidelines	
		TransCanada shares	Total ownership as a multiple of base salary
2x	\$1,150,008	\$1,310,964	2.3x



Alexander J. Pourbaix

CHIEF OPERATING OFFICER

Mr. Pourbaix is accountable for the profitability and growth of all of TransCanada's business units as well as the Operations and Projects Centre of Excellence.

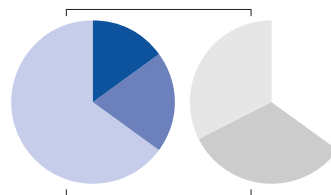
2016 Key results

- Led commercial negotiations on Columbia acquisition
- Oversaw successful integration of Columbia and delivery of cost synergies
- Significantly reduced headcount, process and systems complexity for operations and projects, all while maintaining safety and regulatory compliance
- Delivered final resolution of Alberta coal power purchase agreement dispute

- Mr. Pourbaix's short-term incentive award was based on a combination of corporate performance (80 per cent) and individual performance (20 per cent).
- The short-term incentive award for 2016 performance was based on Mr. Pourbaix's target of 80 per cent of base salary.
- Mr. Pourbaix's 2016 short-term and long-term incentive awards as a percentage of 2016 base salary were 136 per cent and 450 per cent, respectively.

Compensation (as at December 31)	2016	2015	2014
Fixed			
Base salary	\$800,004	\$800,004	\$800,004
Variable			
Short-term incentive	1,088,006	750,050	810,050
Long-term incentive			
ESUs	1,800,000	1,600,000	1,400,000
Stock options	1,800,000	1,600,000	1,400,000
Total direct compensation	\$5,488,010	\$4,750,054	\$4,410,054
Change from last year	16%	8%	—

2016 Pay mix



Base salary	15%
Short-term incentive	20%
Long-term incentive	65%
ESUs	32.5%
Stock options	32.5%

Short-term incentive is attributed to the noted financial year, and is paid by March 15 of the following year.

Share ownership is based on the 20-day volume-weighted average closing price on the TSX of \$60.48 for TransCanada shares as at December 31, 2016.

Share ownership

Minimum level of ownership	Minimum value	Ownership under the guidelines	
		TransCanada shares	Total ownership as a multiple of base salary
2x	\$1,600,008	\$3,796,451	4.8x



Karl Johansson

EXECUTIVE VICE-PRESIDENT AND PRESIDENT, NATURAL GAS PIPELINES

Mr. Johansson is responsible for the profitability and growth of our natural gas pipeline and regulated natural gas storage businesses in Canada, the United States and Mexico.

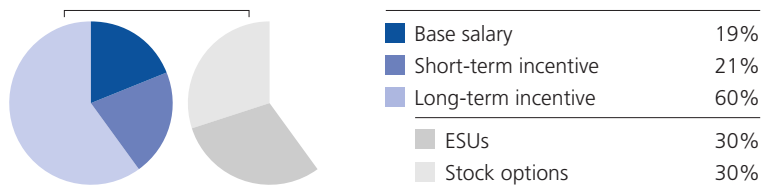
2016 Key results

- Strong financial results
- Settled three FERC pipeline rate cases resulting in improved EBITDA
- Columbia acquisition and integration
- Contracts to build two new natural gas pipeline projects in Mexico; the Sur de Texas and Villa de Reyes projects
- Regulatory approvals for \$1.3 billion of new projects on the NGTL System

- Mr. Johansson's short-term incentive award was based on a combination of corporate performance (40 per cent), business unit performance (40 per cent) and individual performance (20 per cent).
- The short-term incentive award for 2016 performance was based on Mr. Johansson's target of 65 per cent of base salary.
- Mr. Johansson's 2016 short-term and long-term incentive awards as a percentage of 2016 base salary were 111 per cent and 313 per cent, respectively.

Compensation (as at December 31)	2016	2015	2014
Fixed			
Base salary	\$575,004	\$575,004	\$550,008
Variable			
Short-term incentive	635,380	485,900	518,400
Long-term incentive			
ESUs	900,000	862,500	756,250
Stock options	900,000	862,500	756,250
Total direct compensation	\$3,010,384	\$2,785,904	\$2,580,908
Change from last year	8%	8%	—

2016 Pay mix



Share ownership

Minimum level of ownership	Minimum value	Ownership under the guidelines	
		TransCanada shares	Total ownership as a multiple of base salary
2x	\$1,150,008	\$1,767,286	3.1x

Short-term incentive is attributed to the noted financial year, and is paid by March 15 of the following year.

Share ownership is based on the 20-day volume-weighted average closing price on the TSX of \$60.48 for TransCanada shares as at December 31, 2016.



William C. Taylor

EXECUTIVE VICE-PRESIDENT AND PRESIDENT, ENERGY

Mr. Taylor is responsible for the profitability and growth of our power and non-regulated gas storage business in Canada and the United States.

2016 Key results

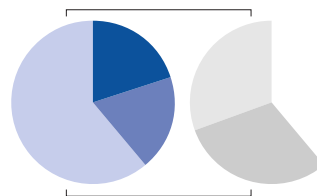
- Key role in divestiture process of U.S. Northeast Power business in support of Columbia acquisition
- Completed executive succession at Bruce Power
- Significant operating cost savings
- Strong overall Energy financial performance
- Negotiated final resolution of Alberta coal power purchase agreement dispute

- Mr. Taylor's short-term incentive award was based on a combination of corporate performance (40 per cent), business unit performance (40 per cent) and individual performance (20 per cent).
- The short-term incentive award for 2016 performance was based on Mr. Taylor's target of 65 per cent of base salary.
- Mr. Taylor's 2016 short-term and long-term incentive awards as a percentage of 2016 base salary were 95 per cent and 300 per cent, respectively.

Compensation (as at December 31)	2016	2015	2014
Fixed			
Base salary	\$450,000	\$450,000	\$400,008
Variable			
Short-term incentive	427,050	380,250	355,713
Long-term incentive			
ESUs	675,000	585,000	441,800
Stock options	675,000	585,000	441,800
Total direct compensation	\$2,227,050	\$2,000,250	\$1,639,321
Change from last year	11%	22%	—

The values provided to Mr. Taylor in U.S. dollars have been expressed in Canadian dollars based on the Bank of Canada's average annual exchange rate for the financial year noted, namely 1.1045 CAD/USD for 2014.

2016 Pay mix



Base salary	20%
Short-term incentive	19%
Long-term incentive	61%
ESUs	30.5%
Stock options	30.5%

Short-term incentive is attributed to the noted financial year, and is paid by March 15 of the following year.

Share ownership is based on the 20-day volume-weighted average closing price on the TSX of \$60.48 for TransCanada shares as at December 31, 2016.

Share ownership

Minimum level of ownership	Minimum value	Ownership under the guidelines	
		TransCanada shares	Total ownership as a multiple of base salary
2x	\$900,000	\$614,779	1.4x

Per the amendments approved in 2015 (page 77), Mr. Taylor has until the end of 2020 to replace the value previously satisfied through unvested ESUs.

Executive compensation – 2016 details

All amounts are in Canadian dollars, unless otherwise indicated.

SUMMARY COMPENSATION TABLE

The table below is a summary of the compensation awarded to our named executives for the last three fiscal years ended December 31, 2016, 2015 and 2014.

Name and principal position	Year	Salary (\$)	Share-based awards (\$)	Option-based awards (\$)	Non-equity incentive plan compensation		Pension value (\$)	All other compensation (\$)	Total compensation (\$)
					Annual incentive plans (\$)	Long-term incentive plans (\$)			
Russell K. Girling President & Chief Executive Officer	2016	1,300,008	3,000,000	3,000,000	2,210,014	—	615,000	13,000	10,138,022
	2015	1,300,008	2,800,000	2,800,000	1,560,000	—	326,000	13,000	8,799,008
	2014	1,300,008	2,437,500	2,437,500	1,690,000	—	224,000	13,000	8,102,008
Donald R. Marchand Executive Vice-President & Chief Financial Officer	2016	575,004	1,006,250	1,006,250	650,330	—	209,000	19,020	3,465,854
	2015	567,504	934,375	934,375	448,550	—	454,000	13,829	3,352,633
	2014	527,504	861,250	861,250	465,100	—	165,000	23,102	2,903,206
Alexander J. Pourbaix Chief Operating Officer	2016	800,004	1,800,000	1,800,000	1,088,006	—	551,000	8,000	6,047,010
	2015	800,004	1,600,000	1,600,000	750,050	—	179,000	20,308	4,949,362
	2014	796,670	1,400,000	1,400,000	810,050	—	725,000	19,967	5,151,687
Karl Johansson Executive Vice-President & President, Natural Gas Pipelines	2016	575,004	900,000	900,000	635,380	—	226,000	23,443	3,259,827
	2015	570,838	862,500	862,500	485,900	—	301,000	12,055	3,094,793
	2014	537,508	756,250	756,250	518,400	—	580,000	43,741	3,192,149
William C. Taylor Executive Vice-President & President, Energy	2016	450,000	675,000	675,000	427,050	—	164,000	268,327	2,659,377
	2015	441,668	585,000	585,000	380,250	—	530,000	385,819	2,907,737
	2014	421,546	441,800	441,800	355,713	—	848,000	369,868	2,878,727

Notes

- Mr. Marchand was appointed Executive Vice-President and Chief Financial Officer on February 1, 2017. Mr. Marchand was appointed Executive Vice-President, Corporate Development and Chief Financial Officer on October 1, 2015. Amounts shown for 2015 include compensation earned for three months in his new position and nine months in his previous position as Executive Vice-President and Chief Financial Officer.
- Mr. Pourbaix was appointed Chief Operating Officer on October 1, 2015. Amounts shown for 2015 include compensation earned for three months in his new position and nine months in his previous position as Executive Vice-President and President, Development.
- The values provided to Mr. Taylor in U.S. dollars have been expressed in Canadian dollars based on the Bank of Canada's average annual exchange rate for the financial year noted, namely 1.1045 CAD/USD for 2014, 1.2787 CAD/USD for 2015, and 1.3248 CAD/USD for 2016.
- **Salary** is the actual base salary earned during each of the three years.
- **Share-based awards** is the long-term incentive compensation that was awarded as ESUs. The number of ESUs granted is the value of the ESU award divided by the volume-weighted average closing price of TransCanada shares for the twenty trading days (five for the 2014 grant) immediately prior to and including the grant date: \$44.90 in 2016, \$54.64 in 2015, and \$48.55 in 2014.
- **Option-based awards** is the long-term incentive compensation that was awarded as stock options. The exercise price is the closing market price of TransCanada shares on the TSX on the trading day immediately prior to the grant date: \$48.44 in 2016, \$56.58 in 2015, and \$49.03 in 2014. See **Stock option valuation** below for more information.
- **Annual incentive plans** is the short-term incentive award, paid as an annual cash bonus and attributable to the noted financial year. Payments are made in the first quarter of the following year.
- There are no long-term non-equity incentive plans.
- **Pension value** includes the annual compensatory value from the DB pension plan. The annual compensatory value is the compensatory change in the accrued obligation and includes the service cost to TransCanada in 2016, plus compensation changes that were higher or lower than the base salary assumptions, and plan changes. See **Retirement benefits** below for more information.

- **All other compensation** includes other compensation not reported in any other column for each named executive and includes:
 - payments to the named executives by any of our subsidiaries and affiliates (including directors' fees paid by affiliates and amounts paid for serving on management committees of entities that we hold an interest in). These include:

	2016	2015	2014
Mr. Pourbaix	\$ —	\$ —	\$12,000
Mr. Taylor	48,000	48,000	31,500

- matching contributions we made on behalf of the named executives under the employee stock savings plan:

	2016	2015	2014
Mr. Girling	\$13,000	\$13,000	\$13,000
Mr. Marchand	5,750	5,675	5,275
Mr. Pourbaix	8,000	8,000	7,967
Mr. Johansson	5,750	5,708	5,375

- cash payments if the named executive elected to receive payment in lieu of vacation entitlement from the previous year:

	2016	2015	2014
Mr. Marchand	\$13,270	\$8,154	\$17,827
Mr. Pourbaix	—	12,308	—
Mr. Johansson	17,693	6,346	38,366
Mr. Taylor	15,577	22,309	1,508

- payments, taxes, and gross-ups related to relocation, pension, and financial counseling amounts made on behalf of a named executive include:

	2016	2015	2014
Mr. Taylor	\$204,750	\$315,510	\$336,860

- Perquisites in 2016, 2015 and 2014 are not included because they are less than \$50,000 and 10 per cent of each named executive's total base salary.

Additional notes to the summary compensation table

Stock option valuation

The amount under *Option-based awards* is calculated using the grant date fair value of the stock option award, as determined by the committee.

The committee and Board have approved the Binomial valuation model as the methodology to determine stock option awards. The Binomial valuation model is a generally accepted valuation method for stock options. The Binomial valuation model is used to calculate TransCanada's accounting value, which we use for both compensation and financial reporting purposes. Each year, the committee and Board review the valuation as prepared by management's independent consultant. The value takes into account the historic and implied volatility of the underlying shares, dividend yield, risk-free interest rate, option term, vesting period, and expected life based on historical stock option exercise activity for TransCanada plan participants.

The table below is a summary of the final compensation value using the Binomial valuation model for the stock option awards granted in 2016, 2015 and 2014:

Grant date	Exercise price (\$)	Compensation value of each stock option (\$)
March 22, 2016	48.44	5.67
February 19, 2015	56.58	6.45
February 25, 2014	49.03	5.54

Total stock option exercises in 2016 (supplemental table)

The table below shows for each named executive:

- the number of stock options exercised in 2016, and
- the total value they realized when the options were exercised.

	Total stock options exercised (#)	Total value realized (\$)
Russell K. Girling	200,000	4,811,131
Donald R. Marchand	—	—
Alexander J. Pourbaix	122,557	2,808,391
Karl Johansson	19,011	440,077
William C. Taylor	—	—

INCENTIVE PLAN AWARDS

Outstanding option-based and share-based awards

The table below shows all outstanding option-based and share-based awards previously granted to the named executives that were still outstanding at the end of 2016. Year-end values are based on \$60.54, the closing price of TransCanada shares on the TSX at December 31, 2016.

Name	Option-based awards				Share-based awards		
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$)	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of vested share-based awards not paid out or distributed (\$)
Russell K. Girling	133,080	35.08	26-Feb-2017	3,388,217	125,116	3,787,261	—
	100,000	36.90	16-Jun-2017	2,364,000			
	158,172	37.93	18-Feb-2018	3,576,269			
	385,475	41.95	17-Feb-2019	7,165,980			
	383,275	47.09	15-Feb-2020	5,155,049			
	439,982	49.03	25-Feb-2021	5,064,193			
	434,109	56.58	19-Feb-2022	1,719,072			
	529,101	48.44	22-Mar-2023	6,402,122			
Donald R. Marchand	47,500	36.26	29-Jul-2017	1,153,300	41,871	1,267,435	—
	30,756	37.93	18-Feb-2018	695,393			
	96,369	41.95	17-Feb-2019	1,791,500			
	123,368	47.09	15-Feb-2020	1,659,300			
	155,460	49.03	25-Feb-2021	1,789,345			
	144,864	56.58	19-Feb-2022	573,661			
	177,469	48.44	22-Mar-2023	2,147,375			
Alexander J. Pourbaix	97,540	37.93	18-Feb-2018	2,205,379	73,480	2,224,240	—
	213,687	41.95	17-Feb-2019	3,972,441			
	220,819	47.09	15-Feb-2020	2,970,016			
	252,708	49.03	25-Feb-2021	2,908,669			
	248,062	56.58	19-Feb-2022	982,326			
	317,460	48.44	22-Mar-2023	3,841,266			
Karl Johansson	18,348	37.93	18-Feb-2018	414,848	37,982	1,149,715	—
	32,899	41.95	17-Feb-2019	611,592			
	48,450	45.29	2-Nov-2019	738,863			
	97,236	47.09	15-Feb-2020	1,307,824			
	136,507	49.03	25-Feb-2021	1,571,196			
	133,721	56.58	19-Feb-2022	529,535			
	158,730	48.44	22-Mar-2023	1,920,633			
William C. Taylor	15,209	35.08	26-Feb-2017	387,221	27,257	825,069	—
	16,487	37.93	18-Feb-2018	372,771			
	26,071	41.95	17-Feb-2019	484,660			
	26,132	47.09	15-Feb-2020	351,475			
	72,202	49.03	25-Feb-2021	831,045			
	90,698	56.58	19-Feb-2022	359,164			
	119,048	48.44	22-Mar-2023	1,440,481			

Notes

- **Value of unexercised in-the-money options** is based on outstanding vested and unvested stock options and the difference between the option exercise price and year-end closing price of our shares.
- **Number of shares or units of shares that have not vested** includes the amount of the grant, plus reinvested units earned as dividend equivalents of all outstanding ESUs as at December 31, 2016.
- **Market or payout value of share-based awards that have not vested** is the minimum payout value of all outstanding ESUs as at December 31, 2016. The value is calculated by multiplying 50 per cent of the number of units that have not vested by the year-end closing price of our shares.
- No value is shown for **Market or payout value of vested share-based awards not paid out or distributed**. The ESU award granted in 2014 vested on December 31, 2016, and will be paid in March 2017. These awards are shown in the next table.

Incentive plan awards – value vested during the year

The table below shows the total value of all option-based and share-based awards previously granted to the named executives that vested in 2016. It also shows the total amount they earned from non-equity incentive plan awards in 2016.

Name	Option-based awards – value vested during the year (\$)	Share-based awards – value vested during the year (\$)	Non-equity incentive plan compensation – value earned during the year (\$)
Russell K. Girling	238,907	4,577,598	2,210,014
Donald R. Marchand	76,900	1,617,418	650,330
Alexander J. Pourbaix	137,643	2,629,184	1,088,006
Karl Johannson	60,610	1,420,229	635,380
William C. Taylor	16,290	791,860	427,050

Notes

- **Option-based awards** is the total value the named executives would have realized if they had exercised the stock options on the vesting date.
- **Share-based awards** is the payout value of the 2014 ESU awards for the named executives. See the **Payout of 2014 executive share unit award** section for more information.
- **Non-equity incentive plan compensation** is the short-term incentive award for 2016. This amount is shown under **Annual incentive plans** in the **Summary compensation table** on page 95.

Value of outstanding options at vesting (supplemental table)

The next table shows the details by grant for calculating the total value of the option-based awards in the table above. Stock options vest one third each year, beginning on the first anniversary of the grant date. The *share price on vesting date* is the closing price for TransCanada shares on the TSX on the vesting date or the first trading day following that date.

Name	Grant date	Total number of securities under options granted (#)	Option exercise price (\$)	Number of options that vested during the year (#)	Share price on vesting date (\$)	Value at vesting (\$)
Russell K. Girling	19-Feb-2015	434,109	56.58	144,703	49.98	—
	25-Feb-2014	439,982	49.03	146,660	48.73	—
	15-Feb-2013	383,275	47.09	127,758	48.96	238,907
Donald R. Marchand	19-Feb-2015	144,864	56.58	48,288	49.98	—
	25-Feb-2014	155,460	49.03	51,820	48.73	—
	15-Feb-2013	123,368	47.09	41,123	48.96	76,900
Alexander J. Pourbaix	19-Feb-2015	248,062	56.58	82,687	49.98	—
	25-Feb-2014	252,708	49.03	84,236	48.73	—
	15-Feb-2013	220,819	47.09	73,606	48.96	137,643
Karl Johansson	19-Feb-2015	133,721	56.58	44,574	49.98	—
	25-Feb-2014	136,507	49.03	45,503	48.73	—
	15-Feb-2013	97,236	47.09	32,412	48.96	60,610
William C. Taylor	19-Feb-2015	90,698	56.58	30,233	49.98	—
	25-Feb-2014	72,202	49.03	24,068	48.73	—
	15-Feb-2013	26,132	47.09	8,711	48.96	16,290

EQUITY COMPENSATION PLAN INFORMATION

Securities authorized for issue under equity compensation plans

The table below shows the:

- number of shares to be issued under the stock option plan when outstanding options are exercised
- weighted average exercise price of the outstanding options, and
- number of shares available for future issue under the option plan.

at December 31, 2016			
Plan category	Number of securities to be issued upon exercise of outstanding options (#)	Weighted-average exercise price of outstanding options (\$)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column) (#)
Equity compensation plans approved by security holders	10,629,958	48.28	13,630,114
Equity compensation plans not approved by security holders	N/A	N/A	N/A
Total	10,629,958	48.28	13,630,114

Stock option grants as a percentage of outstanding shares

Effective date	Total number of shares outstanding (A)	Total number of options outstanding (B)	Total reserve (C)	Total options granted during year (D)	Dilution	Overhang	Burn rate
					Options outstanding as a % of shares outstanding (B / A)	% of stock options outstanding plus total reserve divided by total shares outstanding ((B + C) / A)	Grant as a % of shares outstanding (D / A)
Dec 31, 2014	708,662,996	8,464,305	8,215,001	2,292,289	1.19	2.35	0.32
Dec 31, 2015	702,614,096	9,833,700	6,109,768	2,214,028	1.40	2.27	0.32
Dec 31, 2016	863,759,075	10,629,958	13,630,114	2,479,654	1.23	2.81	0.29

RETIREMENT BENEFITS

All of the named executives participate in our DB plan. The table below shows their benefits under the DB plan.

Defined benefit pension plan

at December 31, 2016		Annual benefits		Opening present value of defined benefit obligation (\$)	Compensatory change (\$)	Non-compensatory change (\$)	Closing present value of defined benefit obligation (\$)
Name	Number of years of credited service	At year end (\$)	At age 65 (\$)				
Russell K. Girling	21.00	941,000	1,416,000	14,266,000	615,000	1,448,000	16,329,000
Donald R. Marchand	22.92	347,000	506,000	5,584,000	209,000	637,000	6,430,000
Alexander J. Pourbaix	21.00	484,000	802,000	7,608,000	551,000	729,000	8,888,000
Karl Johannson	21.00	310,000	449,000	5,247,000	226,000	544,000	6,017,000
William C. Taylor	20.75	221,000	361,000	4,092,000	164,000	241,000	4,497,000

Notes

- In 2004, the committee approved arrangements for Mr. Girling, Mr. Pourbaix, Mr. Johannson and Mr. Taylor to receive additional credited service to recognize their high potential and to retain them as employees. The credited service was received for years when they were not formally enrolled in the pension plan, but were employees of TransCanada. Messrs. Girling, Pourbaix and Johannson each received an additional three years of credited service on September 8, 2007 after maintaining continuous employment with us of the same duration. Mr. Taylor received an additional 2.08 years of credited service. The additional credited service is recognized only in the supplemental pension plan for earnings exceeding the maximum set under the *Income Tax Act* (Canada).
- Annual benefits at year end** is the annual lifetime benefit payable at age 60, based on the years of credited service and the actual pensionable earnings history, as of December 31, 2016.
- Annual benefits at age 65** is the annual lifetime benefit payable at age 65, based on the years of credited service at age 65 and the actual pensionable earnings history, as of December 31, 2016.
- Opening and closing present value of defined benefit obligation** is at December 31, 2015 and December 31, 2016, respectively. It represents actuarial assumptions and methods that are consistent with those used for calculating the pension obligations disclosed in our 2015 and 2016 consolidated financial statements. These assumptions reflect our best estimate of future events, and the values in the above table may not be directly comparable to similar estimates of pension obligations that may be disclosed by other corporations.
- Compensatory change** in the present value of the obligation includes the service cost to TransCanada in 2016, plus compensation changes that were higher or lower than the base salary assumption, and plan changes.
- Non-compensatory change** in the present value of the obligation includes the interest on the accrued obligation at the start of the year and changes in assumptions in the year.

Accrued pension obligations

Our accrued obligation for the supplemental pension plan was approximately \$370 million at December 31, 2016. The current service costs were approximately \$7 million and the interest costs were approximately \$14 million for a total of \$21 million.

The accrued pension obligation is calculated using the method prescribed by U.S. GAAP and is based on management's best estimate of future events that affect the cost of pensions, including assumptions about future base salary adjustments and short-term incentive awards.

You can find more information about the accrued obligations and assumptions in Note 22 *Employee post-retirement benefits* to our 2016 consolidated financial statements, which are available on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

TERMINATION AND CHANGE OF CONTROL

Termination

We have an employment agreement with each named executive that outlines the terms and conditions that apply if the executive leaves TransCanada. The table on the following page is a summary of the material terms and provisions if the executive resigns, is terminated, retires or dies. These do not apply when there is a change of control.

The general terms and provisions of ESUs are discussed under each event, however, the committee can use its discretion to decide how to treat unvested ESUs upon termination for executives who have an employment agreement. Each employment agreement includes a non-competition provision that applies for 12 months following the executive's separation date.

Like all other employees, the named executives are eligible for retiree benefits if they are 55 or older with 10 or more years of continuous service on the separation date. Retiree benefits include:

- a health spending account that can be used to pay for eligible health and dental expenses and/or to purchase private health insurance
- a security plan that provides a safety net if there are significant medical expenses, and
- life insurance that provides a death benefit of \$10,000 to a designated beneficiary.

The employee stock plan, spousal and dependent life insurance, accident insurance and disability insurance end at the separation date.

Compensation on termination

The table below shows how each named executive's compensation is treated if he leaves TransCanada.

Base salary	Resignation	Payments end.
	Termination without cause	Severance allowance includes a lump-sum payment of the base salary as of the separation date multiplied by the notice period.
	Termination with cause	Payments end.
	Retirement	
	Death	
Short-term incentive	Resignation	Not paid.
	Termination without cause	Year of separation: Equals the average bonus pro-rated by the number of months in the current year prior to the separation date. Years after separation: Equals the average bonus multiplied by the notice period.
	Termination with cause	Not paid.
	Retirement	Year of separation: Equals the average bonus pro-rated by the number of months in the current year prior to the separation date.
	Death	
ESUs	Resignation	Vested units are paid out; unvested units are forfeited.
	Termination without cause	Vested units are paid out. Unvested units are forfeited, however the original grant value is generally paid out on a pro rata basis.
	Termination with cause	Vested units are paid out, unvested units are forfeited.
	Retirement	Vested units are paid out. Unvested units continue to vest and the value is assessed at the end of the term. The award is pro-rated for the period of employment up to the retirement date.
	Death	Vested units are paid out. Unvested units are forfeited, however, the original grant value is generally paid out on a pro rata basis.
Stock options	Resignation	Vested stock options must be exercised by their expiry date or six months from the separation date (whichever is earlier). No stock options vest after the last day of employment.
	Termination without cause	Vested stock options must be exercised by the earlier of i) their expiry date or ii) the later of a) the end of the notice period, and b) six months following the separation date. No stock options vest after the separation date.
	Termination with cause	Vested stock options must be exercised by their expiry date or six months from the separation date (whichever is earlier). No stock options vest after the last day of employment.
	Retirement	Grants after January 1, 2012 Outstanding stock options continue to vest and must be exercised by their expiry date or three years from the separation date (whichever is earlier). If there is less than six months between the vesting date and the expiry date, the expiry date is extended for six months from the final vesting date of the options. Grants before 2012 Outstanding stock options vest immediately and must be exercised by their expiry date or three years from the separation date (whichever is earlier).
	Death	Outstanding stock options vest immediately and must be exercised by their expiry date or the first anniversary of death (whichever is earlier).

Pension	Resignation	Paid as a commuted value or monthly benefit according to the Registered Plan, the Supplemental Plan, or both, as applicable.
	Termination without cause	
	Termination with cause	
	Retirement	For termination without cause , credited service is provided for the applicable notice period.
	Death	
Benefits	Resignation	Coverage ends, or retiree benefits begin if eligible.
	Termination without cause	Coverage continues during the notice period (or an equivalent lump-sum payout is made). Retiree benefits eligibility is determined at the end of the notice period.
	Termination with cause	Coverage ends, or retiree benefits begin if eligible.
	Retirement	Coverage ends, or retiree benefits begin if eligible.
	Death	Coverage continues to eligible dependents for a specified period of time after death.
Perquisites	Resignation	Payments end.
	Termination without cause	A lump-sum cash payment equal to the corporate cost of the perquisite package in the one-year period preceding the separation date multiplied by the notice period.
	Termination with cause	
	Retirement	Payments end.
	Death	
Other	Resignation	–
	Termination without cause	Out-placement services.
	Termination with cause	–
	Retirement	–
	Death	–

Notes

- **Resignation** includes voluntary resignation but not resignation as a result of constructive dismissal. If a named executive resigns because of constructive dismissal, it is treated as **termination without cause**.
- The **short-term incentive** award is not paid on resignation unless the Board uses its discretion.
- **Average bonus** equals the average short-term incentive award paid to the named executive for the three years preceding the separation date.
- The **notice period** is currently two years for each named executive.

Change of control

Under the terms of the employment agreements, the stock option plan and ESU plan, a *change of control* includes an event where another entity becomes the beneficial owner of:

- more than 50 per cent of the voting shares of TransCanada, or
- more than 50 per cent of the voting shares of TCPL (not including the voting shares held by TransCanada).

Other events can also constitute a change of control including a merger where TransCanada is not the surviving entity, a sale of all or substantially all of TCPL's assets or if the incumbent board ceases to be a majority of the Board.

The following is a summary of the terms and provisions that apply to the compensation of the named executives if there is a change of control and there has been a termination without cause or a constructive dismissal within two years of the change of control ('double trigger'). Upon a double trigger for the named executives, a two-year notice period applies which provides for:

- payment of a severance allowance equal to the annual compensation during the notice period which is composed of base salary and the three-year average of annual incentive compensation
- a pensionable service credit of two years under the supplemental pension plan
- continuation of health, dental, life and accident insurance benefits during the notice period or cash payment in lieu of such benefits
- a cash payment in lieu of perquisites during the notice period
- professional out-placement services to a maximum of \$25,000
- accelerated vesting and payment of ESUs, and
- accelerated vesting of stock options.

If, for any reason, we are unable to implement accelerated vesting (for example, our shares stop trading), we will pay the named executive a cash amount. This would be equal to the net amount of the compensation the named executive would have received if, on the date of a change of control, he had exercised all vested options and unvested options that would have had accelerated vesting.

Separation and other payments

The table below is a summary of the incremental payments that would be made to each named executive under the different separation events, with and without a deemed change of control. All payments have been calculated using December 31, 2016 as the separation date and the date of a change of control as if it applies.

These amounts would be paid under the terms of the employment agreements.

They do not include certain amounts that would be provided under normal course, such as the value of:

- any stock options or ESUs vesting as part of normal employment
- pension benefits that would normally be provided following resignation, or
- retiree benefits.

Name	Without a change of control		With a change of control		
	Termination with cause (\$)	Termination without cause (\$)	Retirement (\$)	Death (\$)	Termination without cause (\$)
Russell K. Girling	—	17,396,956	6,397,602	18,500,507	31,210,240
Donald R. Marchand	—	6,003,835	2,138,745	6,223,342	10,656,770
Alexander J. Pourbaix	—	10,398,660	3,511,886	10,644,260	17,714,313
Karl Johansson	—	5,101,426	1,966,789	5,639,172	10,050,409
William C. Taylor	—	3,926,900	1,179,531	3,751,465	6,932,747

Notes

- **Termination without cause following a change of control** also applies if the named executive resigns because of constructive dismissal and the separation date is within two years of the date of a change of control.
- There are no incremental payments that would be made to each named executive in the event of a change of control without termination.
- The amounts from share-based compensation include the payouts of outstanding 2014 ESU awards for some separation events:
 - include additional units from reinvested dividends up to and including an equivalent number of units for the final dividend that is declared as of December 31, 2016, based on \$60.48, the twenty-day volume-weighted average closing price of TransCanada shares on the TSX at December 31, 2016, and
 - include the performance multiplier of 1.34 as determined by the committee and the Board.
- ESUs and stock options continue to vest under the **Retirement** scenario provided the named executive is age 55 or over.
- The values provided to Mr. Taylor in U.S. dollars have been expressed here in Canadian dollars based on the Bank of Canada's average annual exchange rate for the financial year noted, namely 1.1045 CAD/USD for 2014, 1.2787 CAD/USD for 2015, and 1.3248 CAD/USD for 2016.

Every year the committee reviews the severance amounts calculated for each named executive under his employment agreement. The data represents the total value to be paid to the executive if he is terminated without cause and with and without a deemed change of control.

Other information

SHARE REPURCHASE PROGRAM

In November 2015, the TSX approved our normal course issuer bid (NCIB), which allowed for the repurchase and cancellation of up to 21.3 million common shares, representing three per cent of our then issued and outstanding common shares, between November 23, 2015 and November 22, 2016 at prevailing market prices plus brokerage fees, or such other prices as may be permitted by the TSX. During that period, 7.1 million shares were repurchased at an average price of \$43.36. During 2016, the Company repurchased 305,407 common shares for \$13.7 million under the NCIB. The NCIB has now expired, and has not been renewed. As a result of the recent acquisition of Columbia, we do not anticipate further repurchases in the foreseeable future.

Shareholders may obtain, free of charge, a copy of the notice of intent regarding this NCIB, which was approved by the Toronto Stock Exchange, by writing to the Corporate Secretary.

LOANS TO DIRECTORS AND EXECUTIVES

As of the date of this circular, none of our directors or executives had any loans from TransCanada or any of our subsidiaries. This is also true for:

- former executives or directors of TransCanada or any of our subsidiaries
- this year's nominated directors, and
- any associate of a director, executive officer or nominated director.

None of the above owe money to another entity that is the subject of a guarantee, support agreement, letter of credit or other similar arrangement or understanding provided by TransCanada or any of our subsidiaries.

DIRECTORS' AND OFFICERS' LIABILITY INSURANCE

TransCanada has purchased liability insurance to protect its directors and officers (or their heirs and legal representatives) against liabilities they may incur while performing their duties as directors and officers of TransCanada and/or its subsidiaries, subject to the limitations set out in the *Canada Business Corporations Act*.

The current policy has a combined limit of US\$200 million for personal (Side A) and corporate indemnity coverage (Side B). A stand alone Side A policy is also purchased with a limit of US\$100 million for losses TransCanada cannot indemnify directors and officers by law or otherwise. Side A claims require no deductible while a US\$5 million deductible is applied to Side B claims.

TransCanada paid a total premium of approximately US\$2.3 million for the 2016-2017 insurance program.

ADDITIONAL INFORMATION

Shareholders can request a free copy of this circular, and the 2016 AIF and 2016 Annual report from our Corporate Secretary:

TransCanada Corporation
450 1st Street S.W.
Calgary, Alberta,
Canada T2P 5H1
Tel: 1.800.661.3805

For financial information about TransCanada, see our most recent annual audited consolidated financial statements and MD&A. Copies of these documents and materials related to corporate governance are available on our website (www.transcanada.com).

You can find more information about TransCanada on our website (www.transcanada.com) and on SEDAR (www.sedar.com).

Appendix A: Charter of the Board of Directors

I. INTRODUCTION

- A. The Board's primary responsibility is to foster the long-term success of the Company consistent with the Board's responsibility to act honestly and in good faith with a view to the best interests of the Company.
 - B. The Board of Directors has plenary power. Any responsibility not delegated to management or a committee of the Board remains with the Board. This Charter is prepared to assist the Board and management in clarifying responsibilities and ensuring effective communication between the Board and management.
- iii) nominating candidates for election to the Board;
 - iv) determining independence of Board members;
 - v) approving committees of the Board and membership of directors thereon;
 - vi) determining director compensation; and
 - vii) assessing the effectiveness of the Board, committees and directors in fulfilling their responsibilities.

II. COMPOSITION AND BOARD ORGANIZATION

- A. Nominees for directors are initially considered and recommended by the Governance Committee of the Board, approved by the entire Board and elected annually by the shareholders of the Company.
 - B. The Board must be comprised of a majority of members who have been determined by the Board to be independent. A member is independent if the member has no direct or indirect relationship which could, in the view of the Board, be reasonably expected to interfere with the exercise of a member's independent judgment.
 - C. Directors who are not members of management will meet on a regular basis to discuss matters of interest independent of any influence from management.
 - D. Certain of the responsibilities of the Board referred to herein may be delegated to committees of the Board. The responsibilities of those committees will be as set forth in their Charter, as amended from time to time.
- i) the appointment and succession of the Chief Executive Officer (CEO) and monitoring CEO performance, approving CEO compensation and providing advice and counsel to the CEO in the execution of the CEO's duties;
 - ii) approving a position description for the CEO;
 - iii) reviewing CEO performance at least annually, against agreed-upon written objectives;
 - iv) approving decisions relating to senior management, including the:
 - a) appointment and discharge of officers of the Company and members of the senior executive leadership team;
 - b) compensation and benefits for members of the senior executive leadership team;
 - c) annual corporate and business/functional and individual performance objectives utilized in determining incentive compensation or other awards to officers; and
 - d) employment contracts, termination and other special arrangements with senior executive officers, or other employee groups if such action is likely to have a subsequent material⁽¹⁾ impact on the Company or its basic human resource and compensation policies.
 - v) taking all reasonable steps to ensure succession planning programs are in place, including programs to train and develop management;
 - vi) the overall oversight of the Company sponsored Canadian pension plans and ensuring that processes are in place to properly oversee the administration and management of such pension plans either directly or through delegation of the duties and responsibilities to one or more Board Committees;

III. DUTIES AND RESPONSIBILITIES

A. Managing the Affairs of the Board

The Board operates by delegating certain of its authorities, including spending authorizations, to management and by reserving certain powers to itself. Certain of the legal obligations of the Board are described in detail in Section IV. Subject to these legal obligations and to the Articles and By-laws of the Company, the Board retains the responsibility for managing its own affairs, including:

- i) planning its composition and size;
- ii) selecting its Chair;

(1) For purposes of this Charter, the term "material" includes a transaction or a series of related transactions that would, using reasonable business judgment and assumptions, have a meaningful impact on the Corporation. The impact could be relative to the Corporation's financial performance and liabilities as well as its reputation.

- vii) approving certain matters relating to all employees, including:
 - a) the annual salary policy/program for employees;
 - b) new benefit programs or changes to existing programs that would create a change in cost to the Company in excess of \$10,000,000 annually; and
 - c) material benefits granted to retiring employees outside of benefits received under approved pension and other benefit programs.

C. Strategy and Plans

The Board has the responsibility to:

- i) participate in strategic planning sessions to ensure that management develops, and ultimately approve, major corporate strategies and objectives;
- ii) approve capital commitment and expenditure budgets and related operating plans;
- iii) approve financial and operating objectives used in determining compensation;
- iv) approve the entering into, or withdrawing from, lines of business that are, or are likely to be, material to the Company;
- v) approve material divestitures and acquisitions; and
- vi) monitor management's achievements in implementing major corporate strategies and objectives, in light of changing circumstances.

D. Financial and Corporate Issues

The Board has the responsibility to:

- i) take reasonable steps to ensure the implementation and integrity of the Company's internal control and management information systems;
- ii) monitor operational and financial results;
- iii) approve annual financial statements and related Management's Discussion and Analysis, review quarterly financial results and approve the release thereof by management;
- iv) approve the Management Information Circular, Annual Information Form and documents incorporated by reference therein;
- v) declare dividends;
- vi) approve financings, changes in authorized capital, issue and repurchase of shares, issue and redemption of debt securities, listing of shares and other securities, issue of commercial paper, and related prospectuses and trust indentures;
- vii) recommend appointment of external auditors and approve auditors' fees;
- viii) approve banking resolutions and significant changes in banking relationships;
- ix) approve appointments, or material changes in relationships with corporate trustees;

- x) approve contracts, leases and other arrangements or commitments that may have a material impact on the Company;
- xi) approve spending authority guidelines; and
- xii) approve the commencement or settlement of litigation that may have a material impact on the Company.

E. Business and Risk Management

The Board has the responsibility to:

- i) take reasonable steps to ensure that management has identified the principal risks of the Company's businesses and implemented appropriate strategies to manage these risks, understands the principal risks and achieves a proper balance between risks and benefits;
- ii) review reports on capital commitments and expenditures relative to approved budgets;
- iii) review operating and financial performance relative to budgets or objectives;
- iv) receive, on a regular basis, reports from management on matters relating to, among others, ethical conduct, environmental management, employee health and safety, human rights, and related party transactions; and
- v) assess and monitor management control systems by evaluating and assessing information provided by management and others (e.g. internal and external auditors) about the effectiveness of management control systems.

F. Policies and Procedures

The Board has responsibility to:

- i) monitor compliance with all significant policies and procedures by which the Company is operated;
- ii) direct management to ensure the Company operates at all times within applicable laws and regulations and to the highest ethical and moral standards;
- iii) provide policy direction to management while respecting its responsibility for day-to-day management of the Company's businesses; and
- iv) review significant new corporate policies or material amendments to existing policies (including, for example, policies regarding business conduct, conflict of interest and the environment).

G. Compliance Reporting and Corporate Communications

The Board has the responsibility to:

- i) take all reasonable steps to ensure the Company has in place effective disclosure and communication processes with shareholders and other stakeholders and financial, regulatory and other recipients;
- ii) approve interaction with shareholders on all items requiring shareholder response or approval;

- iii) take all reasonable steps to ensure that the financial performance of the Company is adequately reported to shareholders, other security holders and regulators on a timely and regular basis;
- iv) take all reasonable steps to ensure that financial results are reported fairly and in accordance with generally accepted accounting principles;
- v) take all reasonable steps to ensure the timely reporting of any other developments that have significant and material impact on the Company; and
- vi) report annually to shareholders on the Board's stewardship for the preceding year (the Annual Report).

IV. GENERAL LEGAL OBLIGATIONS OF THE BOARD OF DIRECTORS

A. The Board is responsible for:

- i) directing management to ensure legal requirements have been met and documents and records have been properly prepared, approved and maintained;
- ii) approving changes in the By-laws and Articles of Incorporation, matters requiring shareholder approval, and agendas for shareholder meetings;
- iii) approving the Company's legal structure, name, logo, mission statement and vision statement; and
- iv) performing such functions as it reserves to itself or which cannot, by law, be delegated to Committees of the Board or to management.

Appendix B: Non-GAAP measures

In our disclosure, we use the following non-GAAP measures:

- *Comparable earnings*
- *Comparable earnings per common share*
- *Comparable EBITDA*
- *Comparable EBIT*
- *Funds generated from operations*
- *Comparable funds generated from operations*
- *Comparable distributable cash flow*
- *Comparable distributable cash flow per common share*

These measures do not have any standardized meaning as prescribed by U.S. generally accepted accounting principles (GAAP) and therefore may not be similar to measures presented by other entities.

See our 2016 MD&A for reconciliation of the GAAP measures to the non-GAAP measures.

CALCULATING THE MEASURES

Comparable measures

We calculate the comparable measures by adjusting certain GAAP and non-GAAP measures for specific items we believe are significant but not reflective of our underlying operations in the period. These comparable measures are calculated on a consistent basis from period to period and are adjusted for specific items in each period, as applicable.

The following table identifies our non-GAAP measures against their equivalent GAAP measures:

Comparable measure	Original measure
comparable earnings	net income/(loss) attributable to common shares
comparable earnings per common share	net income/(loss) per common share
comparable EBITDA	segmented earnings
comparable EBIT	segmented earnings
comparable funds generated from operations	net cash provided by operations
comparable distributable cash flow	net cash provided by operations

Our decision whether to adjust for a specific item is subjective and made after careful consideration.

Specific items may include:

- certain fair value adjustments relating to risk management activities
- income tax refunds and adjustments and changes to enacted tax rates
- gains or losses on sales of assets
- legal, contractual and bankruptcy settlements
- impact of regulatory or arbitration decisions relating to prior year earnings
- restructuring costs
- impairment of goodwill, investments and other assets including ongoing maintenance and liquidation costs
- acquisition costs.

We exclude the unrealized gains and losses from changes in the fair value of derivatives used to reduce our exposure to certain financial and commodity price risks. These derivatives generally provide effective economic hedges, but do not meet the criteria for hedge accounting. As a result, the changes in fair value are recorded in net income. As these amounts do not accurately reflect

the gains and losses that will be realized at settlement, we do not consider them reflective of our underlying operations.

Comparable earnings

Comparable earnings represents earnings or loss attributable to common shareholders on a consolidated basis adjusted for specific items. Comparable earnings is comprised of segmented earnings, interest expense, AFUDC, interest income and other, income taxes and non-controlling interests adjusted for the specific items.

Comparable EBIT and comparable EBITDA

Comparable EBIT represents segmented earnings adjusted for the specific items described above. We use comparable EBIT as a measure of our earnings from ongoing operations as it is a useful measure of our performance and an effective tool for evaluating trends in each segment. Comparable EBITDA is calculated the same way as comparable EBIT but excludes the non-cash charges for depreciation and amortization.

Funds generated from operations

Funds generated from operations includes net cash provided by operations before changes in operating working capital. We believe it is a useful measure of our consolidated operating cash flow because it does not include fluctuations from working capital balances, which do not necessarily reflect underlying operations in the same period, and is used to provide a consistent measure of the cash generating performance of our assets.

Comparable distributable cash flow

Comparable distributable cash flow is defined as comparable funds generated from operations less preferred share dividends, distributions to non-controlling interests and maintenance capital expenditures. Maintenance capital expenditures are expenditures incurred to maintain our operating capacity, asset integrity and reliability, and include amounts attributable to our proportionate share of maintenance capital expenditures on our equity investments. Although we deduct maintenance capital expenditures in determining comparable distributable cash flow, in certain of our rate-regulated businesses, maintenance capital expenditures are included in their respective rate bases, on which we earn a regulated return and recover depreciation through future tolls.

Effective December 31, 2016, we adopted, on a retrospective basis, a new accounting standard under U.S. GAAP which allows us to classify certain distributed earnings received from equity investments as cash from operations on the consolidated statement of cash flows, which had previously been included in Investing activities. As a result, we no longer need to adjust for distributions in excess of equity earnings in the calculation of comparable distributable cash flow.

We believe comparable distributable cash flow is a useful supplemental measure of performance that defines cash available to common shareholders before capital allocation.

Shareholder Information

TransCanada welcomes questions from shareholders and investors.
Please contact:

David Moneta, Vice President, Investor Relations

telephone: **403.920.7911**

toll free: **1.800.361.6522**

investor_relations@transcanada.com

www.transcanada.com

Board of Directors

You may contact the Board directly
by writing to:

Chair of the Board of Directors

c/o Corporate Secretary

TransCanada Corporation

450 – 1 Street SW

Calgary, Alberta, Canada

T2P 5H1

Transfer Agent

Computershare Investor Services, Inc.

100 University Avenue, 8th Floor

Toronto, Ontario M5J 2Y1

telephone: **1.514.982.7959**

toll free: **1.800.340.5024**

email: **transcanada@computershare.com**

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Our annual report is online,
visit our site for more information.
www.transcanada.com

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