SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 11-K

\checkmark	ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended December 31, 2017.
	OR
	TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	For the transition period from to
	Commission File No. 1-31690
A.	Full title of the plan and the address of the plan, if different from that of the issuer named below:
	TransCanada 401(k) and Savings Plan
	TransCanada USA Services Inc., 700 Louisiana Street, Suite 700
	Houston, Texas 77002-2700

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

TransCanada Corporation 450 – 1 Street S.W., Calgary, Alberta, T2P 5H1, Canada

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All other schedules required by 29 CFR 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

Report of Independent Registered Public Accounting Firm

To the Plan Administrator and Plan participants of TransCanada 401(k) and Savings Plan:

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of the TransCanada 401(k) and Savings Plan (the Plan) as of December 31, 2017 and 2016, and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, and the related notes and supplemental schedule (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2017 and 2016, and the changes in net assets available for benefits for the year ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on the Plan's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Plan in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Supplemental Information

The supplemental Schedule of Assets (Held at End of Year) as of December 31, 2017 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information, we evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ Caron & Bletzer, PLLC

We have served as the Plan's auditor since 2016 Kingston, NH June 18, 2018

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

December 31 (thousands of U.S. dollars)	2017	2016
Assets		
Investments at fair value (Note 3) \$	683,209	\$ 267,111
Other receivables (Note 4)	23,307	—
Notes receivable from participants	10,694	5,514
Employer contribution receivable	475	428
Net Assets Available for Benefits \$ 1	717,685	\$ 273,053

The accompanying notes to the financial statements are an integral part of these statements.

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

Year ended December 31 (thousands of U.S. dollars)	2017
Additions	
Contributions	
Employee contributions	\$ 16,085
Employer contributions	11,940
Employee rollovers	1,788
	29,813
Investment Income	
Net appreciation in fair value of investments (Note 3)	35,233
Interest and dividend income	11,548
	46,781
Interest on notes receivable from participants	243
Other Revenue	63
Total Additions	76,900
Deductions	
Benefits paid to participants	45,983
Administrative expenses	18
Total Deductions	46,001
Increase in Net Assets Available for Benefits before plan transfers	30,899
Transfer in from related plans	413,733
Increase in Net Assets Available for Benefits	444,632
Net Assets Available for Benefits	
Beginning of Year	273,053
End of Year	\$ 717,685

The accompanying notes to the financial statements are an integral part of these statements.

NOTES TO FINANCIAL STATEMENTS December 31, 2017 and 2016

NOTE 1: DESCRIPTION OF PLAN

The TransCanada 401(k) and Savings Plan (the Plan) is a defined contribution plan that provides retirement benefits for employees of TransCanada USA Services Inc. (TCUSA or the Company) or its subsidiaries not covered by a collective bargaining agreement, unless participation is required by the agreement. The Plan excludes employees hired under the Company's student program, until they reach age 21 and have completed at least 1,000 hours of service, special project employees, non-resident persons with no income from a United States source and non-resident persons who have been non-residents for a period of 183 days or more, unless the employee remains on the Company's payroll. The Plan is subject to the provisions of the *Employee Retirement Income Security Act of 1974*, as amended (ERISA).

On April 1, 2017, employees of Columbia Pipeline Group, Inc. were transferred to become employees of TC USA Services Inc., and the Plan was amended to provide for continued participation under the Columbia Pipeline Group 401(k) Savings Plan. On December 31, 2017, the Columbia Pipeline Group 401(k) Savings Plan was merged into the Plan.

On December 31, 2017, the TransCanada 401(k) and Savings IBEW 1245 Plan was also merged into the Plan.

The Board of Directors of TCUSA has appointed Fidelity Management Trust Company (Fidelity or the Trustee) as custodian and trustee of the Plan's assets. Fidelity Investments Institutional Operations Company serves as the recordkeeper for the Plan.

Employee and Employer Contributions

Each year, participants may elect to defer a percentage of their eligible compensation into the Plan subject to an annual limit of the lesser of 60 per cent of their eligible compensation or \$18,000, subject to certain limitations under the Internal Revenue Code of 1986, as amended (the Code). Participants age 50 or older who are making deferral contributions may also make catch-up contributions of up to \$6,000. In addition, employees may contribute up to 100 per cent of bonuses paid by the Company subject to certain limitations as noted above. The Company will match 100 per cent of each participant's contributions up to a maximum of five per cent of the participant's compensation for the Plan year. The Company will also make annual enhanced profit sharing contributions in an amount equal to seven per cent of a participant's base salary, if the participant has elected, or is deemed to have elected, not to accrue credited service under the TransCanada USA Services Inc. Retirement Plan. In 2017, the Company made enhanced contributions of \$3.7 million. Participants may also contribute amounts transferred to the Plan from another qualified plan at the participant's request (rollover).

Participant Accounts

Each participant's account is credited with the participant's and Company's contributions and an allocation of Plan earnings. Earnings are allocated from a particular fund based on the ratio of a participant's account invested in the fund to all participants' investments in that fund.

Participants are responsible for investment decisions relating to the investment of assets in their account. The Trustee carries out all investing transactions on behalf of the participant. In the event investment instructions are not received from the participant, contributions are allocated to the Plan's qualified default option, the Vanguard Target Retirement funds, based upon the participant's expected retirement date.

Investment in TransCanada Corporation

Stock of TransCanada Corporation (TransCanada), indirect parent company to TCUSA, is available to participants in the Plan. Participants may elect to invest up to 10 per cent of contributions in TransCanada stock. Participants may elect to exchange up to 10 per cent of their existing account balance into TransCanada stock, subject to a 10 per cent maximum account value. Additionally, no more than 10 per cent of any rollover contribution can be invested in TransCanada stock.

Vesting

Participants are immediately vested in their contributions, including rollovers, employer contributions and any earnings thereon.

Notes Receivable from Participants

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 reduced by the highest outstanding note balance in their account during the prior 12 month period or 50 per cent of their vested account balance. Note terms range from one to five years for general notes or up to 15 years for the purchase of a primary residence. The notes are secured by the balance in the participant's account and bear interest at a reasonable interest rate, as determined by the Plan Administrator, based on prevailing market interest rates at the time. Interest rates remain fixed throughout the duration of the term. Interest rates on notes outstanding at December 31, 2017 ranged from 3.25 per cent to 8.25 per cent (2016 - 4.25 per cent to 7 per cent). Principal and interest are paid through payroll deductions.

A note receivable from a participant shall be considered in default if any scheduled repayment remains unpaid as of the last business day of the calendar quarter following the calendar quarter in which the note is initially considered past due. In the event of a default or termination of employment the entire outstanding note and accrued interest is considered to be a deemed distribution to the participant.

Payment of Benefits

Participants are eligible to request a distribution of their vested amounts upon retirement, death, total and permanent disability, severance of employment with the Company or, in very limited circumstances, in the event of financial hardship. Distributions are made in the form of a lump-sum payment, installment payments or a rollover to another qualified account.

A participant's normal retirement age is 65, however, participants may elect to withdraw all or a portion of their contributions after the age of 59½, subject to certain conditions.

In certain circumstances, participants may elect to withdraw all or a portion of their vested matching and profit sharing contributions that have been in their account for at least 24 months and after they have at least 60 months of participation in the Plan.

Forfeitures

As participants are immediately 100 per cent vested in their account balance, there are no forfeitures.

Administrative Expenses

The Plan Administrator is responsible for filing all required reports on behalf of the Plan. The Company provides or pays for certain accounting, legal and management services on behalf of the Plan. The Company has not charged the Plan for these expenses or services. Loans and other transaction specific fees are charged to the accounts of participants electing such transaction. Certain investment related expenses, including management fees, are paid by the mutual

funds the Plan invests in; including those sponsored by an affiliate of Fidelity. These expenses are presented as a reduction of investment income.

Plan Termination

Although it has not expressed any intent to do so, with approval from its Board of Directors, the Company has the right under the Plan to discontinue contributions at any time and to terminate the Plan, subject to the provisions of ERISA.

NOTE 2: SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting

The financial statements of the Plan are presented on an accrual basis of accounting in accordance with U.S. generally accepted accounting principles.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from these estimates.

Investment Valuation and Income Recognition

The Plan's investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for discussion of fair value measurements.

Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date.

Net (Depreciation)/Appreciation in Fair Value of Investments consists of: (1) the unrealized gains or losses on investments held during the year and (2) the realized gains or losses recognized on the sale of investments during the year. Realized gains and losses from security transactions are reported on the average cost basis.

Purchases and sales of securities are recorded on a trade-date basis.

Notes Receivable from Participants

Notes Receivable from Participants includes the unpaid principal balance plus any accrued interest. Defaulted notes receivable from participants are recorded as a distribution based upon the terms of the plan document.

Other Revenue

The agreement between the Trustee and the Plan includes a revenue sharing arrangement whereby the Trustee shares revenue generated by the Plan that was paid from the mutual fund holdings sponsored by an affiliate of the Trustee. These deposits are included in the other revenue amount in the statement of changes in net assets available for benefits. The funds can be used to pay plan expenses or be allocated to participants. Income from revenue sharing during 2017 was \$63,248 of which \$20 (2016 - \$40,374) remains available at December 31, 2017 for allocation to participants or to offset future plan expenses.

Payment of Benefits

Benefits are recorded when paid.

Adoption of Accounting Pronouncements

In May 2015, the FASB issued ASU 2015-07, Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (Or Its Equivalent) ("the Update"). The Update removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset per share practical expedient. This practical expedient would not be used if it is determined to be probable that the fund will sell the investment for an amount different from the reported net asset value. This Update is required for fiscal years beginning after December 15, 2015 (December 15, 2016 for non-public entities) and is to be applied retrospectively.

NOTE 3: INVESTMENTS

Participants direct the investment of their account balances into a broad range of investment securities offered by the Plan. Investment securities are exposed to various risks, such as counterparty credit risk, liquidity risk and market risk. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in value of these investments, it is reasonably possible that changes in the values of investment securities may occur in the near term and that such changes could materially affect participant account balances and the amounts reported in the financial statements.

The Plan offers alternatives that may mitigate participant risks, including the opportunity to diversify investments across multiple participantdirected fund elections including active and passively managed funds covering multiple asset classes. Additionally, the investments within each participant-directed fund election are further diversified into various financial instruments, with the exception of the TransCanada Stock Fund, which invests in securities of a single issuer.

The Plan's exposure to credit loss in the event of nonperformance of investments is limited to the carrying value of such instruments. The Plan's concentrations of credit risk, interest rate risk and market risk are dictated by the Plan's provisions as well as those of ERISA and the participants' investment preference.

Fair Value Hierarchy

The Plan's financial assets and liabilities recorded at fair value have been categorized into three levels based on a fair value hierarchy. In Level I, the fair value of assets and liabilities is determined by reference to quoted prices in active markets for identical assets and liabilities. In Level II, determination of the fair value of assets and liabilities includes valuations using inputs, other than quoted prices, for which all significant inputs are observable, directly or indirectly. This category includes fair value determined using valuation techniques, such as option pricing models and extrapolation using observable inputs. In Level III, determination of the fair value of assets and liabilities includes value measurement. There were no Level II or Level III investments or transfers between levels in 2017 or 2016.

Common Stock: Valued at the closing price reported on the New York Stock Exchange.

Mutual funds: Valued at the daily closing price reported by the fund. Mutual funds held by the Plan are open end mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value and transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Common collective trusts: Common collective trusts hold underlying investments that have prices which are derived from quoted prices in active markets. The fair value of the Plan's interest in these funds is based on the funds' daily NAV (net asset value), which is considered to be the best approximation of fair value. The funds' underlying assets are principally short-term money market funds, marketable equities and fixed income securities. Units held in common collective trusts are valued at the unit value as reported by the investment managers as of December 31, 2017.

Redemptions of the common collective trust held by the Plan are allowed daily for participants; however the Plan is subject to a twelve month redemption notice period. There are no unfunded commitments.

The method described above for common collective trusts may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan's valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

The following tables set forth, by level within the fair value hierarchy, the Plan's investment assets at fair value as of December 31, 2017 and 2016. As required, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement:

	Fair Value Measurements at December 31, 2017					
(thousands of U.S. dollars)		Total		Level 1	Level 2	Level 3
Mutual Funds	\$	588,670	\$	588,670	—	_
Common stock and other		8,065		8,065	—	_
Common collective trusts		86,474			—	—
Total	\$	683,209	\$	596,735	—	—

	Fair Value Measurements at December 31, 2016					
(thousands of U.S. dollars)		Total		Level 1	Level 2	Level 3
Mutual Funds	\$	259,113	\$	259,113	—	—
Common stock and other		7,998		7,998	—	_
Total	\$	267,111	\$	267,111	_	

Net Appreciation in Fair Value of Investments

Net Appreciation in Fair Value of Investments by major category (including investments purchased, sold and held during the year) was as follows:

Year ended December 31 (thousands of U.S. dollars)	2017
Mutual funds	\$ 34,611
Common stock	622
Net Appreciation in Fair Value of Investments	\$ 35,233

NOTE 4: OTHER RECEIVABLES

This balance represents non-monetary receivables from the mutual fund to the separately managed account due to the transition occurring on the last day of the year. The separately managed account is managed by an investment manager specifically for the Plan. Although the participant does not direct the investment of the underlying investments of the separately managed account, those underlying investments are considered participant directed because the participant selected to participate in the separately managed account. Funds in the separately managed account are invested in U.S. midcap securities which are valued at the last sale reported on the exchange in which the securities are principally traded. Participants are permitted to invest or redeem on a daily basis.

NOTE 5: INCOME TAXES

Effective December 15, 2009, the Plan was restated to a volume submitter plan. The Plan obtained an advisory letter on March 31, 2014 in which the Internal Revenue Service stated that the Plan, as then designed, was in compliance with the applicable requirements of the Code. The Plan Administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Code. The Plan is exempt from federal income taxes. Accordingly, no provision for federal income taxes has been made in the accompanying financial statements.

The Plan Administrator has analyzed any income tax assets and liabilities of the Plan and has concluded that as of December 31, 2017 and 2016, there are no uncertain income tax positions taken or expected to be taken that would require recognition of a liability or asset, or disclosure in the financial statements. The Plan is subject to audits by taxing jurisdictions, however, there are currently no audits in progress for any tax periods. The Plan Administrator believes it is no longer subject to income tax examinations for years prior to 2014.

NOTE 6: PARTY-IN-INTEREST AND RELATED PARTY TRANSACTIONS

Certain Plan investments are shares of mutual funds managed by an affiliate of Fidelity, the Trustee, therefore these investments qualify as party-in-interest transactions.

At December 31, 2017 Plan investments included \$8,063,488 (2016 – \$7,996,324) of TransCanada common stock and \$1,863 (2016 – \$1,686) in a stock purchase account. Transactions involving these investments are permitted party-in-interest transactions.

NOTE 7: SUBSEQUENT EVENTS

The Plan has evaluated subsequent events through the date these financial statements were issued.

TRANSCANADA 401(k) AND SAVINGS PLAN EIN #: 98-0460263 PLAN #: 001

SCHEDULE H, PART IV, LINE 4i – SCHEDULE OF ASSETS (HELD AT END OF YEAR) AS OF DECEMBER 31, 2017

(a)	(b) Identity of Issue, Borrower, Lessor or Similar Party	(c) Description of Investment	(d) Cost of Investment**	(e) Current Value
*	Eidelite ® 500 Index Eurod	Mutual Fund		\$ 85,446,332
	Fidelity [®] 500 Index Fund VANG INST TR 2025	Mutual Fund		62,484,093
		Mutual Fund		54,320,116
	VANG INST TR 2030	Mutual Fund		51,058,849
*	VANG INST TR 2020 Fidelity® Small Cap Index Fund	Mutual Fund		35,081,151
	VANG VMMR-FED MMKT	Mutual Fund		34,683,921
*		Mutual Fund		30,945,239
	Fidelity® U.S. Bond Index Fund	Mutual Fund		30,210,363
	FID DIVERSFD INTL K6 VANG INST TR 2035	Mutual Fund		28,261,865
	VANG INST TR 2035 VANG INST TR 2040	Mutual Fund		27,185,270
		Mutual Fund		26,989,085
	JPMorgan Equity Income Fund Class R6	Mutual Fund		20,892,487
	VANG INST TR 2045	Mutual Fund		19,483,010
	VANG INST TR 2050	Mutual Fund		16,043,160
	Artisan Mid Cap Value Investor Shares	Mutual Fund Mutual Fund		14,784,381
	VANG INST TR Income VANG INST TR 2015	Mutual Fund		10,879,553
*		Mutual Fund		10,720,820
	Fidelity® External Market Fund	Mutual Fund		8,736,433
	Vanguard Total International Stock Index Fund			
*	VANG INST TR 2055	Mutual Fund		8,343,376
-1-	Fidelity® Inflation-Protected Bond Index Fund	Mutual Fund		6,656,802
	Baird Core Plus Bond Fund	Mutual Fund		3,937,793
	Causeway Emerging Markets Fund	Mutual Fund Mutual Fund		1,107,667
÷	VANG INST TR 2060			417,900
۰،- حل	Fidelity Growth Company Commingled Pool	Common collective trust		75,664,022
т	Managed Income Portfolio Class 2	Common collective trust		10,095,716
	MELLON Stable Value	Common collective trust		714,170
	Total investments on the statement of net assets available for plan benefits			\$ 675,143,574
*	TransCanada Corporation	Common Stock		8,063,488
*	TransCanada Stock Fund	Stock Purchase Account		1,863
*	Participant Loans	Interest rates ranging from 3.25% to 8.25% maturing through 2032		10,693,743
	Total Assets Held			\$ 693,902,668

* Represents a party-in-interest (Note 6).

** Cost omitted for participant-directed investments.

See accompanying Report of Independent Registered Public Accounting Firm.

23.1 Consent of Independent Registered Public Accounting Firm.

SIGNATURE

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: June 18, 2018

TransCanada 401(k) and Savings Plan

By:

/s/ Jon A. Dobson

Jon A. Dobson Member TransCanada USA Investment Committee To the Plan Administrator of the TransCanada 401(k) and Savings Plan:

We consent to the incorporation by reference in the Registration Statements (No. 333-184074 and No. 333-151736) pertaining to the TransCanada 401(k) and Savings Plan of our report dated June 18, 2018 relating to the statements of net assets available for benefits of the TransCanada 401(k) and Savings Plan as of December 31, 2017 and 2016 and the related statement of changes in net assets available for benefits for the year ended December 31, 2017, included in this annual report on Form 11-K.

/s/ Caron & Bletzer, PLLC

Kingston, NH June 18, 2018