

# Delivering energy responsibly



Corporate Responsibility Report 2017  
Data Sheet



## Corporate Responsibility Report 2017

# Data Sheet

TransCanada believes that being transparent and providing clear and accurate information on our business is critical to building trust and supporting a balanced energy discussion.

We continue to align our reporting with our top 10 material corporate sustainability topics, which represent the interests and concerns most important to our business and stakeholders.

This Corporate Responsibility (CR) report has been developed in accordance with the GRI's G4 core option guidelines, including the disclosures in the oil and gas sector supplement.

Along with the disclosures required by the GRI that are found in both our CR report and this CR report data sheet, we include additional data that we believe stakeholders will find useful in measuring our performance.

Please visit [www.transcanada.com/en/commitment](http://www.transcanada.com/en/commitment) to learn more about our corporate responsibility practices or visit [www.transcanada.com](http://www.transcanada.com) for more details about our business.

## Corporate Responsibility Report 2017

# Safety and Integrity

G4-EN24	2013	2014	2015	2016	2017
<b>Reportable gas releases from natural gas pipelines and facilities</b>					
Total number of reportable releases (#) <sup>1,2</sup>	—	—	—	—	<b>37</b>
Canada	—	—	—	—	<b>22</b>
U.S.	—	—	—	—	<b>8</b>
Mexico	—	—	—	—	<b>7</b>
Total volume of reportable releases (cubic metres)	—	—	—	—	<b>4,538,083</b>
Canada	—	—	—	—	<b>265,032</b>
U.S. <sup>5</sup>	—	—	—	—	<b>4,211,892</b>
Mexico	—	—	—	—	<b>61,159</b>

Note: This indicator is inclusive of all TransCanada natural gas pipeline and facilities where TransCanada has majority operating control, including CPG assets as of July 1, 2016. It does not include liquids pipelines, gas storage, or energy assets.

G4-EN24	2013	2014	2015	2016	2017
<b>Reportable crude oil spills from pipelines and facilities</b>					
Total number of reportable spills (#) <sup>3</sup>	22	10	1	2	<b>2</b>
Canada	21	9	1	0	<b>1</b>
U.S.	1	1	0	2	<b>1</b>
Total volume of reportable spills (barrels) <sup>4</sup>	19.69	1.88	14.47	400.12	<b>9,731.45</b>
Canada	19.21	0.38	14.47	0	<b>31.45</b>
U.S.	0.48	1.50	0	400.12	<b>9,700.00</b>

Note: This indicator is inclusive of all TransCanada liquids pipelines where TransCanada has majority operating control. It does not include gas storage, energy assets or leaks from natural gas pipelines. Spills by third-party contractors are not reflected of TransCanada's integrity performance and are therefore excluded. Data reported in previous TransCanada CR reports may differ from the above, as data is updated to reflect finalized incident information. No restatements were required in 2017.

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# Safety and Integrity

G4-OG13	2013	2014	2015	2016	2017
<b>Process safety events involving pipelines and facilities (#)</b>					
Number of pipeline ruptures	–	3	1	0	1
Natural gas pipeline ruptures <sup>5</sup>	–	3	1	0	0
Liquids pipeline ruptures	–	0	0	0	1
Number of liquid leaks of > 5 barrels from pipelines and facilities <sup>6</sup>	–	0	0	1	0
Number of significant natural gas leaks from pipelines and facilities <sup>7</sup>	–	4	10	7	1

Note: This indicator is inclusive of all natural gas and liquids pipeline assets and facilities where TransCanada has majority operating control, including CPG assets of January 1, 2017.

	2013	2014	2015	2016	2017
<b>Investment in integrity and preventative maintenance programs</b>					
Investment for natural gas and liquids pipelines (CAD\$ M)	376	550	803	809	1,061

Note: This indicator is inclusive of all TransCanada liquids and natural gas pipeline assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016.

	2013	2014	2015	2016	2017
<b>Third-party damage (#)</b>					
One Calls per km of ROW <sup>8</sup>	2.88	2.91	2.76	2.56	5.81
Unauthorized Pipeline Encroachments per 1,000km of ROW <sup>9</sup>	4.33	3.30	3.90	4.62	3.93
Unauthorized excavations per 1,000km of ROW <sup>10</sup>	1.28	1.34	1.50	1.28	1.68

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets as of January 1, 2017.

## Safety and Integrity

	2013	2014	2015	2016	2017
<b>In-line inspections</b>					
Runs analyzed (#)	—	—	146	201	277
Canada					
Gas	—	—	86	87	162
Liquid	—	—	4	1	7
U.S.					
Gas	—	—	43	111	93
Liquid	—	—	10	2	15
Mexico					
Gas	—	—	3	0	0
In-line inspections (km/mi)	—	—	12,968 km/8,056 mi	18,074 km/11,235 mi	21,914 km/13,620 mi
Canada					
Gas	—	—	5,243 km/3,257 mi	10,400 km/6,465 mi	11,232 km/6,981 mi
Liquid	—	—	1,149 km/714 mi	315 km/196 mi	2,074 km/1,289 mi
U.S.					
Gas	—	—	3,759 km/2,335 mi	6,257 km/3,889 mi	4,565 km/2,837 mi
Liquid	—	—	2,460 km/1,528 mi	1,102 km/685 mi	4,043 km/2,513 mi
Mexico					
Gas	—	—	357 km/222 mi	0 km/0 mi	0 km/0 mi

Note: This indicator is inclusive of all TransCanada liquids and natural gas pipeline assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016. The number of in-line inspections can vary year over year, depending on annual program requirements.

	2013	2014	2015	2016	2017
<b>Integrity digs</b>					
Completed integrity digs (#)	—	—	724	799	936
Canada					
Gas	—	—	618	545	716
Liquid	—	—	21	2	10
U.S.					
Gas	—	—	73	235	196
Liquid	—	—	12	14	13
Mexico					
Gas	—	—	0	3	1

Note: This indicator is inclusive of all TransCanada liquids and natural gas pipeline assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016. The number of integrity digs can vary year over year, depending on annual program requirements.



## Corporate Responsibility Report 2017

# Safety and Integrity

	2013	2014	2015	2016	2017
<b>Emergency preparedness and response exercises (#)</b>					
Total exercises completed	104	112	125	117	<b>172</b>
Annual field exercises	23	22	22	22	<b>23</b>
Equipment deployment exercises	10	10	10	10	<b>12</b>
Field tabletop exercises <sup>11</sup>	66	61	67	64	<b>116</b>
Calgary and Houston support department tabletop exercises	5	19	26	21	<b>21</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets as of January 1, 2017. TransCanada contractors are excluded.

<b>G4-LA6</b>	2013	2014	2015	2016	2017
<b>Emergency preparedness and response training (#)</b>					
Regulatory training (HAZWOPER) <sup>12</sup>	547	532	446	404	<b>348</b>
First Responders training <sup>13</sup>	—	—	—	—	<b>253</b>
Best practice training (Incident Command System) <sup>14</sup>	1,559	2,576	2,364	2,537	<b>2,548</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets as of January 1, 2017. TransCanada contractors are excluded. Values reported are for new training completions.

<b>G4-LA6</b>	2013	2014	2015	2016	2017
<b>Occupational health and safety</b>					
Employees					
Fatalities (#)	0	0	0	0	<b>1</b>
Total recordable case rate <sup>15</sup>	0.57	0.59	0.61	0.90	<b>0.59</b>
Away from work case rate <sup>16</sup>	0.14	0.16	0.27	0.25	<b>0.19</b>
Vehicle incident frequency rate <sup>17</sup>	2.02	1.63	2.01	1.07	<b>2.07</b>
High potential incidents rate <sup>18</sup>	0.24	0.18	0.11	0.28	<b>0.16</b>
Casual absentee rate <sup>19</sup>	—	—	—	<b>0.17</b>	<b>0.16</b>
Short term disability absentee rate <sup>20</sup>	—	—	—	<b>0.19</b>	<b>0.21</b>
Workers' Compensation Board absentee rate <sup>21</sup>	—	—	—	<b>0.01</b>	<b>0.008</b>
Average lost days per person <sup>22</sup>	—	—	—	—	<b>4.25</b>
Contractors					
Fatalities (#)	—	—	0	0	<b>0</b>
Total recordable case rate <sup>15</sup>	1.75	1.32	1.17	1.38	<b>0.95</b>
Away from work case rate <sup>16</sup>	0.29	0.19	0.15	0.13	<b>0.10</b>
Vehicle incident frequency rate <sup>17</sup>	2.70	2.51	3.01	2.52	<b>2.45</b>
High potential incidents rate <sup>18</sup>	0.76	0.47	0.63	0.49	<b>0.55</b>

**Corporate Responsibility Report 2017**  
**Safety and Integrity**

<b>G4-LA6</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Total Number of Types of Recordable Injuries for employees and contractors <sup>23</sup>	—	—	—	—	<b>214</b>
Caught in/ under/ or between equipment (% of total)	—	—	—	—	<b>8%</b>
Canada (#)	—	—	—	—	<b>8</b>
U.S. (#)	—	—	—	—	<b>7</b>
Mexico (#)	—	—	—	—	<b>2</b>
Contact with skin or other exposed tissue (% of total)	—	—	—	—	<b>18%</b>
Canada (#)	—	—	—	—	<b>21</b>
U.S. (#)	—	—	—	—	<b>14</b>
Mexico (#)	—	—	—	—	<b>3</b>
Contact with temperature extremes (% of total)	—	—	—	—	<b>1%</b>
Canada (#)	—	—	—	—	<b>0</b>
U.S. (#)	—	—	—	—	<b>1</b>
Mexico (#)	—	—	—	—	<b>2</b>
Exposure to biological agent (% of total)	—	—	—	—	<b>1%</b>
Canada (#)	—	—	—	—	<b>0</b>
U.S. (#)	—	—	—	—	<b>2</b>
Mexico (#)	—	—	—	—	<b>1</b>
Exposure to Noise (% of total)	—	—	—	—	<b>0.5%</b>
Canada (#)	—	—	—	—	<b>0</b>
U.S. (#)	—	—	—	—	<b>1</b>
Mexico (#)	—	—	—	—	<b>0</b>
Exposure to welding light (% of total)	—	—	—	—	<b>0.5%</b>
Canada (#)	—	—	—	—	<b>0</b>
U.S. (#)	—	—	—	—	<b>1</b>
Mexico (#)	—	—	—	—	<b>0</b>
Fall from floor/ground level (% of total)	—	—	—	—	<b>10%</b>
Canada (#)	—	—	—	—	<b>11</b>
U.S. (#)	—	—	—	—	<b>10</b>
Mexico (#)	—	—	—	—	<b>1</b>
Fall to lower level (% of total)	—	—	—	—	<b>5%</b>
Canada (#)	—	—	—	—	<b>2</b>
U.S. (#)	—	—	—	—	<b>5</b>
Mexico (#)	—	—	—	—	<b>3</b>

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G4-LA6	2013	2014	2015	2016	2017
Inhalation of substance (% of total)	—	—	—	—	0.5%
Canada (#)	—	—	—	—	0
U.S. (#)	—	—	—	—	1
Mexico (#)	—	—	—	—	0
Motor Vehicle Incident (% of total)	—	—	—	—	5%
Canada (#)	—	—	—	—	1
U.S. (#)	—	—	—	—	3
Mexico (#)	—	—	—	—	6
Other (% of total)	—	—	—	—	1%
Canada (#)	—	—	—	—	0
U.S. (#)	—	—	—	—	3
Mexico (#)	—	—	—	—	0
Overexertion/ Repetitive Motions (% of total)	—	—	—	—	23%
Canada (#)	—	—	—	—	33
U.S. (#)	—	—	—	—	11
Mexico (#)	—	—	—	—	6
Rubbed or abraded by friction or pressure (% of total)	—	—	—	—	1%
Canada (#)	—	—	—	—	0
U.S. (#)	—	—	—	—	2
Mexico (#)	—	—	—	—	1
Struck by/against objects (% of total)	—	—	—	—	24%
Canada (#)	—	—	—	—	15
U.S. (#)	—	—	—	—	29
Mexico (#)	—	—	—	—	8

Note: This indicator is inclusive of TransCanada assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016, with the exception of: N.E. Power assets (as of April 2017). Data for absentee rates includes TransCanada's core employees only. TransCanada does not currently track contractor absentee rates.

1 A reportable release is defined as one that is reportable to an external agency or authority, such as a federal, provincial or state regulator. Thresholds for reporting of gas releases are lower in the U.S. than Canada with respect to the cost of damage to operators and/or adjacent facilities. In the U.S., a release resulting in damages of \$50,000 to the operator is considered a reportable release. In Canada, a release resulting in damages of \$50,000 is below the reporting threshold for a reportable release.

2 In 2017, TransCanada revised the reporting process to account for both facility and pipeline releases. As a result, 2016 historical data is not fully comparable and has been excluded from this table. In 2016, 31 reportable gas releases occurred, with a total volume of 2,252,447 cubic metres. A material restatement was required for the total number of reportable releases in 2016 due to a calculation error. Please refer to TransCanada's 2016 CR Report for further detail.

3 The GRI defines a significant spill is a hydrocarbon spill greater than 100 bbl released into the environment and/or a hydrocarbon spill released into a sensitive environment. TransCanada defines a significant spill as a reportable spill. A reportable spill is defined as one that is reportable to a regulatory body, such as a federal or provincial or state regulator.

4 Historical data for 2016 and prior has been converted from litres to barrels. The conversion factor used is 1 litre = 0.006289811 barrel.

5 TransCanada defines a rupture as an unplanned, uncontrolled release of liquid that immediately impacts the serviceability of the pipeline.

6 TransCanada defines a leak as an unplanned, uncontrolled release of liquid that does not immediately impact the serviceability of the pipeline.

7 TransCanada defines a significant natural gas leak as a leak that meets one or more of the following criteria:

- Has a direct safety impact on the public, our employees or contractors (e.g., loss of gas service, first aid, injury or fatality)
- Results in an uncontrolled fire
- Results in regulatory enforcement
- Causes an "other" significant unplanned event not covered by any of the criteria above (e.g., significant impact on Shippers or Industrial Customers)

8 Local one-call centres field requests to have all underground utilities located and marked free of charge, prior to any commercial or residential project involving digging. These requests are received via telephone or online.

9 Unauthorized encroachments include activities carried out without authorization from local one-call centres.



10 Unauthorized excavations include more serious activities than other encroachments, with greater potential to cause impact or exposure that would result in a need to repair an underground facility.

11 Field tabletop exercises involve key personnel discussing simulated scenarios in an informal setting.

12 The hazardous waste operations and emergency response standard regulates the safety and health of employees involving in management and cleanup operations at uncontrolled hazardous waste sites, employees engaged in certain hazardous waste sites, and employees engaged in certain hazardous waste.

13 First responders are provided a specialized training course on how to respond to and manage an incident that educates them on the process for conducting proper on-site assessments, how to evaluate tactical response equipment and in some cases, how to stabilize an incident.

14 Best practice training includes ICS 100 and 200 courses, which provide introductory and basic training designed to describe the history, features and principles, and organization structure of the ICS and enable personnel to operate efficiently during an incident or event.

15 TransCanada defines total recordable case rate as the number of recordable cases related to a common exposure base of 100 full-time employees. Recordable cases are all work-related deaths and illnesses, and those work-related injuries that result in a loss of consciousness, restriction of work or motion, transfer to another job or require medical treatment beyond first aid.

16 TransCanada defines away from work case rate as an incident resulting in an injury or illness that prevents an employee from returning to work on the next scheduled shift. The number of away from work cases, where the employee would have worked but could not because of an occupational injury or illness, is related to a common exposure base of 100 full-time workers. This performance indicator is often referred to as the Lost-Time Case Rate.

17 TransCanada defines vehicle incident frequency rate as the number of recordable vehicle incidents related to a common exposure base of 1,000,000 km driven. A recordable vehicle incident (regardless of fault) involves a fleet or rental motor vehicle that results in an injury to any person or damage to any vehicle or property, unless the vehicle was safely and legally parked at the time of the incident.

18 TransCanada defines high potential incidents rate as incidents with a high potential to result in serious, debilitating injury to the worker related to a common exposure base of 100 full-time employees. Examples of high potential incidents include, but are not limited to, high-speed vehicle incidents, vehicle rollovers, high-voltage or high-pressure incidents, injuries to the head, falls from heights. Vehicle incidents involving animal strikes are not included in this indicator and have been removed from this data.

19 TransCanada defines casual absences as when an employee is medically unable to work for up to 36 continuous work hours due to a non-work related illness or injury.

20 TransCanada defines short-term disability absences as a medical absence lasting more than 36 consecutive hours away from work due to a non-occupational illness or injury. Short-term disability is a company-funded income continuance program from which qualifying employees can derive income replacement for a non-work-related illness or injury from the first day to twenty-six (26) weeks of absence.

21 TransCanada defines Workers' Compensation Board absences as a work-related illness or injury requiring medical aid and/or medical absence of more than a day, involving a provincial or state Company-sponsored income replacement program operated through the various provincial or state Workers' Compensation boards or U.S. insurance carriers.

22 TransCanada calculated average lost days per person through combining the total lost days in Canada, the U.S., and Mexico, and divided this by the total headcount across all three regions.

23 Percentage breakdowns of injury types may not add up to 100% due to rounding.

## Corporate Responsibility Report 2017

### Society

	2013	2014	2015	2016 <sup>2</sup>	2017
<b>Indigenous spending (CAD\$ M)</b>					
Total direct indigenous spend <sup>1</sup>	—	—	—	53.8	<b>17.74</b>
Indigenous direct spend	—	—	—	35.5	<b>17.70</b>
Native American direct spend	—	—	—	18.3	<b>0.04</b>
Total indirect indigenous spend <sup>2</sup>	—	—	—	106.3	<b>57.76</b>
Indigenous indirect spend	—	—	—	106.3	<b>57.75</b>
Native American indirect spend	—	—	—	0.03	<b>0.01</b>

Note: This indicator is inclusive of all TransCanada operations and assets, excluding the CPG assets.

<b>G4-SO1</b>	2013	2014	2015	2016	2017
<b>Local community engagement plans</b>					
Percentage of operations with local community engagement, impact assessments, and development programs (%)	—	—	—	100	<b>100</b>

## Society

G4-EC1 (partial)	2013	2014	2015	2016	2017
<b>Community Investment</b>					
Direct community investment (CAD\$ M)	12.7	14.6	14.7	16.6	15.1
Community investments by motivation (% of total)	–	–	–	–	–
Social investments <sup>3</sup>	–	–	39	48	38
Commercial investments <sup>4</sup>	–	–	11	12	8
Philanthropic investments <sup>5</sup>	–	–	50	40	54
In-kind giving (CAD\$ M) <sup>6</sup>	–	–	0.34	0.14	2.3
Community investment incl. funds leveraged through outside sources (CAD\$ M) <sup>7</sup>	14.7	20.6	20.4	21.9	17.0
Investments as a percentage of total revenue (%) <sup>8</sup>	0.14	0.14	0.15	0.13	0.11

Note: This indicator is inclusive of all TransCanada operations and assets, with the exception of the CPG Foundation spend, data for which is included within “funds leveraged through outside sources” for 2017 only. As part of our membership with the London Benchmarking Group, this performance data has been assured by an external third party.

G4-EC1 (partial)	2013	2014	2015	2016	2017
<b>Employee Giving &amp; Volunteering</b>					
Employee and contractor donations (CAD\$ M)	-	-	0.76	0.77	0.88
Company donations matching employee and contractor donations (CAD\$ M)	-	-	1.81	2.03	2.15
Volunteer hours logged by employees and contractors (# of hours)	6,801	11,553	9,151	11,452	15,826
During non-paid time	-	-	7,531	8,666	12,885
During paid time	-	-	1,620	2,786	2,941
Value of volunteer hours during paid work time (CAD\$)	-	-	76,228	131,089	138,385

Note: This indicator is inclusive of all TransCanada operations and assets, including CPG assets as of August 2017.

G4-10/G4-11	2013	2014	2015	2016	2017
<b>Employment</b>					
Full-time employees (#)	5,437	6,059	5,512	7,147	6,771
Canada	3,487	4,010	3,603	3,374	3,390
U.S.	1,859	1,914	1,757	3,563	3,112
Mexico	91	135	152	210	269
Contract professionals (#)	2,525	2,930	2,453	3,586	3,252
Canada	-	2,362	1,896	1,857	1,757
U.S.	-	307	271	1,312	958
Mexico	-	261	286	417	537
Employees represented by independent trade union or covered by collective bargaining agreements (%) <sup>9</sup>	4.5	4.3	4.7	5.1	4.6

Note: This indicator is inclusive of all TransCanada operations and assets, including CPG assets as of July 1, 2016.

<b>G4-LA1</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>New hires and employee turnover</b>					
New hire employees (#)	919	927	385	302	<b>751</b>
Canada	686	726	226	147	<b>281</b>
U.S.	195	154	125	117	<b>385</b>
Mexico	38	47	34	38	<b>85</b>
<b>New hire employees by age group (%)</b>					
< 30 years of age	–	33	33	57	<b>26</b>
30 - 50 years of age	–	58	57	57	<b>65</b>
> 50 years of age	–	9	10	16	<b>9</b>
<b>New hire employees by gender (%)</b>					
Female	–	37	30	30	<b>26</b>
Male	–	63	70	70	<b>74</b>
<b>Employee total turnover rate (%)</b>					
Employee voluntary turnover rate <sup>10</sup>	4.1	4.1	5.1	3.6	<b>4.0</b>
Employee involuntary turnover rate <sup>11</sup>	1.4	3.4	12.3	8.0	<b>11.0</b>
<b>Employee total turnover rate by region (%)</b>					
Canada	–	67	71	60	<b>24</b>
U.S.	–	30	26	36	<b>74</b>
Mexico	–	3	3	4	<b>2</b>
<b>Employee turnover by age group (%)</b>					
< 30 years of age	–	16.0	9.0	7.9	<b>8</b>
30 - 50 years of age	–	44.0	46.0	46.1	<b>46</b>
> 50 years of age	–	40.0	45.0	46.1	<b>46</b>
<b>Employee turnover by gender (%)</b>					
Female	–	27.0	35.0	30.0	<b>25</b>
Male	–	73.0	65.0	70.0	<b>75</b>

Note: This indicator is inclusive of all TransCanada operations and assets from 2015 onward, including CPG as of July 1, 2016. Prior to 2017, new hires did not include CPG assets. Prior to 2015, employee turnover rates excluded Mexico.



<b>G4-10/LA-12</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Diversity of governance bodies and employees</b>					
Women in workforce (%)	29.5	31.5	30.5	27.5	<b>28.0</b>
Full-time employees	–	31.5	30.5	27.5	<b>28.0</b>
Contractors	–	35.8	31.8	28.2	<b>27.4</b>
Diversity of governance bodies (% of total board members)					
Women	–	23.1	30.0	30.0	<b>23.1</b>
Men	–	76.9	70.0	70.0	<b>76.9</b>
< 30 years of age	–	0.0	0.0	0.0	<b>0.0</b>
30 - 50 years of age	–	0.0	0.0	0.0	<b>0.0</b>
> 50 years of age	–	100.0	100.0	100.0	<b>100.0</b>
Diversity of executive management (%) <sup>12</sup>					
Women	11.2	22.2	22.2	25.0	<b>25.0</b>
Men	88.8	77.8	77.8	75.0	<b>75.0</b>
< 30 years of age	–	0.0	0.0	0.0	<b>0.0</b>
30 - 50 years of age	–	11.1	11.1	0.0	<b>0.0</b>
> 50 years of age	–	88.9	88.9	100.0	<b>100.0</b>
Diversity of top management (%) <sup>13</sup>					
Women	9.0	13.6	14.8	16.7	<b>21.2</b>
Men	91.0	86.5	85.2	83.3	<b>77.2</b>
< 30 years of age	–	0.0	0.0	0.0	<b>0.7</b>
30 - 50 years of age	–	47.5	35.1	60.5	<b>61.5</b>
> 50 years of age	–	52.5	64.9	39.5	<b>37.8</b>
Diversity of junior management (%) <sup>14</sup>					
Women	23.0	23.2	23.5	23.9	<b>25.8</b>
Men	77.0	76.8	76.5	76.1	<b>74.2</b>
< 30 years of age	–	0.0	0.0	0.0	<b>0.3</b>
30 - 50 years of age	–	56.2	62.2	60.5	<b>63.4</b>
> 50 years of age	–	43.8	37.8	39.5	<b>35.2</b>
Diversity of non-management (%) <sup>15</sup>					
Women	–	32.9	31.6	28.0	<b>27.3</b>
Men	–	67.1	68.4	72.0	<b>72.7</b>
< 30 years of age	–	15.9	15.7	13.5	<b>12.4</b>
30 - 50 years of age	–	56.1	54.7	55.7	<b>58.4</b>
> 50 years of age	–	28.0	29.6	30.8	<b>29.2</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016. Diversity data is categorized by protected groups as defined by regional compliance requirements: in Canada under the Employment Equity Act and in the U.S. as a condition of the Office of Federal Contract Compliance Programs. There are no such compliance requirements in Mexico, however do we track and voluntarily report Mexico gender workforce representation. Diversity data for management and non-management roles for prior years has been updated to reflect the refinement of definitions for these roles in 2017. These restatements do not materially impact diversity figures.

<b>G4-10/LA-12 (continued)</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Canadian diversity analysis (%)					
Women	35.3	37.3	36.6	36.5	<b>36.3</b>
Indigenous	2.0	1.8	2.5	2.4	<b>2.4</b>
Persons with disabilities	1.6	2.0	3.4	3.2	<b>3.1</b>
Visible minorities (excl. Indigenous)	15.8	18.7	20.6	20.6	<b>21.7</b>
American diversity analysis (%)					
Women	18.6	19.3	18.3	18.7	<b>18.7</b>
Minorities (incl. American Indians/Alaska Natives)	19.7	19.0	19.6	13.5	<b>13.1</b>
Individuals with disabilities	0.8	1.2	3.1	2.1	<b>2.1</b>
Veterans	9.4	9.7	10.5	7.1	<b>6.4</b>
Mexico diversity analysis (%)					
Women	-	29.5	28.3	30.1	<b>27.5</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets as of July 1, 2016. Diversity data is categorized by protected groups as defined by regional compliance requirements: in Canada under the Employment Equity Act and in the U.S. as a condition of the Office of Federal Contract Compliance Programs. There are no such compliance requirements in Mexico, however we track and voluntarily report Mexico gender workforce representation. Diversity data for management and non-management roles for prior years has been updated to reflect the refinement of definitions for these roles in 2017. These restatements do not materially impact diversity figures.

1 TransCanada's direct spend with prime/general suppliers.

2 TransCanada's prime/general suppliers' spend on labour, subcontractors, materials and expenses.

3 Social investments involve longer-term strategic involvement in community partnerships that address a specific range of social issues and are important to the company or to company stakeholders.

4 Commercial investments are activities in the community that directly support our business objectives or that promote or protect our commercial interests.

5 Philanthropic investments are one-off or intermittent donations in response to charity appeals or in support of employee charitable activities.

6 TransCanada defines in-kind giving as donations of equipment or resources to support community programs.

7 Community investments including funds leverage through outside sources takes into consideration contributions to community projects that can be directly linked to TransCanada's involvement (but are not included in the investment cost), including additional investment generated from other companies, governments and TransCanada employees.

8 Investments as a percentage of total revenue were misstated due to a reporting typo in TransCanada's 2016 CR Report. Accurate values were reported in TransCanada's 2016 CR Data Sheet and have been corrected in the 2017 CR Report. Therefore the impact of this restatement is not considered material.

9 Employees represented by independent trade unions/bargaining agreements are inclusive of all TransCanada operations and assets, with the exception of CPG assets.

10 Voluntary turnover includes employees who retired or resigned from employment at TransCanada. There was a change in scope for 2017 from 2016; in 2017 voluntary turnover rates no longer include deceased employees.

11 Involuntary turnover includes divestitures, severances, discharges and layoffs. There was a change in scope for 2017 from 2016; prior to 2017, involuntary turnover rates did not include divestitures.

12 Executive management at TransCanada includes Chief Executive Officer and Executive Leadership Team roles, including Executive Vice Presidents.

13 Top management at TransCanada includes roles that are Executive level E1 and E2, including Senior Vice President and Vice President roles.

14 Junior management at TransCanada includes roles of M1 through M3.

15 Non-management at TransCanada includes any roles in which individuals are not responsible for management of other employees and technical roles. This excludes co-op and summer students.

## Environment

G4-EN15	2013	2014	2015	2016	2017
<b>Scope 1 greenhouse gas emissions (GHG)</b>					
Direct GHG emissions (millions tCO <sub>2</sub> e) <sup>1</sup>	12.2	12.7	13.0	16.2	<b>12.6</b>
Natural Gas Pipelines	7.1	7.4	7.3	8.3	<b>8.7</b>
Liquids Pipelines	0	0	0	0	<b>0</b>
Power	5.1	5.3	5.7	7.8	<b>3.8</b>
Transportation fuel	–	–	–	0.018	<b>0.062</b>

Note: Please refer to TransCanada's CR report for detailed scope and boundary information for GHG emissions.. Data reported in previous TransCanada CR reports may differ from the above, as the data has been updated to reflect finalized data. The transportation fuel GHG emissions in 2016 has been restated from 180,000 due to a reporting error in the 2016 CR Report. The total direct GHG emissions for 2015 has been restated from 13,100,000 due to a calculation error in the 2016 CR Report. Accurate numbers were reported for the breakdown of emissions by asset type. The impact of these restatements on TransCanada's overall emissions profile is immaterial.

G4-EN16	2013	2014	2015	2016	2017
<b>Scope 2 greenhouse gas emissions (GHG)</b>					
Indirect GHG emissions (millions tCO <sub>2</sub> e) <sup>1</sup>	0.19	0.19	0.19	0.35	<b>0.34</b>
Natural Gas Pipelines	0.19	0.19	0.19	0.35	<b>0.34</b>
Power	0.0	0.003	0.004	0.007	<b>0.009</b>
Total direct and indirect GHG emissions (tCO <sub>2</sub> e) <sup>1</sup>	12.3	12.9	13.3	16.5	<b>12.8</b>
Natural gas pipelines	7.3	7.6	7.5	8.7	<b>9.0</b>
Power	5.1	5.3	5.7	7.8	<b>3.8</b>

Note: Please refer to TransCanada's CR report for detailed scope and boundary information for GHG emissions.

G4-EN18	2013	2014	2015	2016	2017
<b>Greenhouse gas emission intensities</b>					
Natural gas pipelines emissions intensity (tCO <sub>2</sub> e/Bcf) <sup>2</sup>	500	520	560	–	–
United States	–	–	–	293	<b>280</b>
Canada	–	–	–	991	<b>779</b>
Mexico	–	–	–	136	<b>145</b>
Power generation emissions intensity (tCO <sub>2</sub> e/MWh) <sup>3</sup>	0.17	0.17	0.15	0.19	<b>0.12</b>

Note: Please refer to TransCanada's CR report for detailed scope and boundary information for GHG emissions. Emissions intensities are calculated based on Scope 1 emissions, excluding Scope 2 and heat products (for power generation emissions intensity).

G4-OG2	2013	2014	2015	2016	2017
<b>Total amount invested in renewable energy</b>					
Total amount invested in renewable energy (CAD\$ M) <sup>4</sup>	–	–	–	935	<b>469</b>

Note: This indicator is inclusive of all TransCanada liquids pipeline assets where TransCanada has majority operating control, including CPG assets of July 1, 2016.

G4-EC2	2013	2014	2015	2016	2017
<b>Emissions expenses</b>					
Expenses under existing GHG pricing programs (CAD\$ M) <sup>5</sup>	34	54	59	62	<b>63</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control, including CPG assets of July 1, 2016.



## Environment

	2013	2014	2015	2016	2017
<b>Water consumption</b>					
Total water consumption (million cubic metres) <sup>6, 7, 8</sup>	—	3.8	4.2	7.8	<b>4.5</b>

Note: This indicator is inclusive of all TransCanada power assets where TransCanada has majority operating control and Canadian Natural Gas and Liquids pipelines.

1 TransCanada calculates its direct GHG emissions using a combination of methods required by various regulations in different jurisdictions. We report our emissions to British Columbia, Alberta, Ontario, Québec, Environment and Climate Change Canada, the U.S. Environmental Protection Agency (EPA), California, Oregon, Washington, the Regional Greenhouse Gas Initiative and Mexico's Ministry of Environment and Natural Resources (SEMARNAT). Due to the sale of U.S. Northeast power assets in 2017, TransCanada did not report full year for the Regional Greenhouse Gas Initiative. These calculation methods can include direct measurement and emission factors in conjunction with operating conditions. Emissions are estimated for vented and fugitive emissions and based on assumptions about operations using experienced staff with direct operational knowledge, including, for example, estimated fuel consumption.

- CO<sub>2</sub>, methane, and nitrous oxide are included in Scope 1 emissions.
- CO<sub>2</sub> emissions are calculated based on fuel gas measurements at pipeline and power generation facilities.
- Methane emissions are calculated using field reports for blowdowns and an extensive in-house set of emission factors for calculating fugitive emissions.
- Nitrous oxide is calculated based on engine-specific emissions factors.

The global warming potentials are based on IPCC assessments. An emission factor of 0.0086 for methane combustion at natural gas turbines is based on EPA AP 42, fifth edition.

2 The relationship between natural gas transmission pipeline GHG emissions and the volume of gas transported is complex. Comparisons of emissions intensities between natural gas transmission pipeline systems must consider the type of pipeline network and the service that it is providing.

3 Many of TransCanada's electricity generating facilities also generate a heat product, which is not accounted for here. Therefore, the emissions intensity presented for this indicator is only partially representative of the company's true emissions intensity. 2016 Bruce Power generation was used for the 2017 data, as the data was not provided in time for production of the 2017 CR Report.

4 2017 figure based on net book value, which includes diminutions, depreciation, and other accounting charges.

5 Emissions expenses include carbon pricing programs in jurisdictions: British Columbia, Alberta, Ontario, and Quebec in Canada and Regional Greenhouse Gas Initiative, and California in the U.S.

6 Total volume of water taken is defined as water used for hydrostatic testing, and is reported only for Hydrostatic Testing for Canadian Pipelines and does not include tanks.

7 Total power water consumption is inclusive of all TransCanada operations and assets, including:

- Ocean State Power
- Coolidge
- Ravenswood
- Redwater
- Bear Creek
- Carseland
- Halton Hills
- Becancour

Total power water consumption excludes the following operations and assets:

- Once-through cooling water: once through-cooling water returned to the same source is not included in water consumption as per clarification of the water consumption metric with DJSI staff in 2015.
- NE Hydro: hydro facilities are excluded from the water consumption metric
- Mackay River: water consumption at Mackay River is accounted for by Suncor

8 TransCanada uses the DJSI definition for water consumption and defines it as water withdrawn, net of water discharged to the source with higher or equal quality.

TransCanada's total water consumption is equivalent to the total of water withdrawn for the above listed facilities. None of our assets meets the DJSI criteria of discharged to the source with higher or equal quality. Discharged water is not returned to the source with equal or higher quality, and cannot be subtracted from water withdrawn to determine water consumption.

## Economy

G4-EC1 (partial)	2013	2014	2015	2016	2017
<b>Financial performance (CAD\$ M, unless otherwise indicated)</b>					
Revenues	8,855	10,267	11,353	12,547	<b>13,449</b>
Comparable EBITDA*	4,859	5,521	5,908	6,647	<b>7,377</b>
Net income attributable to common shares	1,712	1,743	-1,240	124	<b>2,997</b>
Net income attributable to common shares (\$/share)	2.42	2.46	-1.75	0.16	<b>3.44</b>
Comparable earnings*	1,584	1,715	1,755	2,108	<b>2,690</b>
Comparable earnings per common share (\$/share)*	2.24	2.42	2.48	2.78	<b>3.09</b>
Funds generated from operations*	4,120	4,415	4,730	4,821	<b>5,503</b>
Proceeds from sale of assets, net of transaction costs	0	196	0	6	<b>5,317</b>
Cash dividends paid on common and preferred shares	1,356	1,439	1,538	1,536	<b>1,494</b>
Common dividends declared per share (\$/share)	1.84	1.92	2.08	2.26	<b>2.50</b>
Capital spending, equity investments, and acquisitions (CAD\$ B)	5,131	4,834	5,158	19,745	<b>9,210</b>
Interest expense	951	1,107	1,370	1,998	<b>2,069</b>
Income tax expense / (recovery)	611	831	34	352	<b>(89)</b>
Investment in R&D <sup>1</sup>	22.7	39.6	46.6	20.3	<b>14.8</b>

\* Denotes a non-GAAP measure. Please refer to the CR Report "Cautionary Note" for more detail.

G4-EC1 (partial)	2013	2014	2015	2016	2017
<b>Economic benefits to communities<sup>2</sup> (millions of dollars unless otherwise indicated)</b>					
Property taxes (CAD\$)	445	473	517	555	<b>569</b>
Cash taxes paid (CAD\$)	202	109	162	105	<b>247</b>
Total payroll costs <sup>3</sup>	–	–	1,090.6	1,468.3	<b>1,244.2</b>
Canada (CAD\$)	–	–	699.9	636.6	<b>688.3</b>
U.S. (US\$)	–	–	261.8	604.6	<b>418.0</b>
Mexico (MXN peso)	–	–	368.0	307.0	<b>483.7</b>
Employee benefits <sup>4</sup>	–	–	180.8	236.8	<b>200.3</b>
Canada (CAD\$)	–	–	98.7	84.8	<b>82.7</b>
U.S. (US\$)	–	–	58.7	112.5	<b>92.6</b>
Mexico (MXN peso)	–	–	14.1	15.8	<b>26.5</b>

Note: This indicator is inclusive of all TransCanada operations and assets, including CPG of July 1, 2016, but excluding CPG's property and cash taxes for prior to 2017.

## Economy

G4-EC1	2013	2014	2015	2016	2017
<b>Direct economic value generated and distributed (CAD\$ M)</b>					
Direct economic value generated	–	–	11,353	12,547	<b>13,449</b>
Direct economic value distributed	–	–	6,905	8,072	<b>8,689</b>
Plant operating costs, employee wages and benefits, and others	–	–	3,303	3,861	<b>3,906</b>
Payments to providers of capital	–	–	2,908	3,534	<b>3,952</b>
Payments to government	–	–	679	660	<b>816</b>
Community investment	–	–	14.7	16.6	<b>15.1</b>
Direct economic value retained	–	–	4,448	4,475	<b>4,760</b>

Note: This indicator is inclusive of all TransCanada operations and assets, including CPG of July 1, 2016, but excluding CPG's property and cash taxes for prior to 2017. Data for economic value generated and plant operating costs, employee wages, and benefits in 2015 and 2016 has been restated to reflect final figures. The impact of these restatements is not considered material.

1 R&D at TransCanada includes the R&D Program spend and special projects often done in one year and not another. The variance from 2016 to 2015 is due to the decrease in special projects, specifically the ILI Tool Development EMAT Correlation Digs. Also, in 2016 there were four significant special projects with a total spend of \$12.6M, including KS3 Rosen Ultra Tool, Boreal Caribou Habitat Restoration, Full Scale Pipe Burst Tests, and L12 and L15 ILI Runs, which were completed in 2016 and will not be continuing in 2017.

2 For total payroll costs and total employee benefits we have applied 2017 and 2016 average US\$ to CAN\$ exchange rate published in the TransCanada Annual Report. We have applied the 2017 and 2016 average Mexican peso to CAN\$ exchange rate published by the Bank of Canada.

3 Total payroll costs are based on T4, W2, and Constancia de Percepciones for Canadian, U.S., and Mexican core employees.

4 Employee benefit costs include the overall costs for the following programs, where applicable: pension plans, benefits (including medical, dental, vision), stock and savings plans, life and accident insurance, long-term disability, employee-assistance programs and other benefits not included in Total Payroll Cost.

## Operations

	2013	2014	2015	2016	2017
<b>Assets</b>					
Natural gas transmission network (km)	68,000	68,000	67,300	91,500	<b>91,900</b>
Natural gas storage capacity (Bcf)	407	368	368	653	<b>653</b>
Power facilities (#)	21	19	20	17	<b>11</b>
Power generation capacity (MW)	11,800	10,900	13,100	10,700	<b>6,100</b>
Liquids Pipelines (km)	4,247	4,247	4,247	4,324	<b>4,874</b>

## Corporate Governance and Ethics

	2015	2016	2017
<b>Political Contributions (CAD \$)</b>			
Political contributions made by TransCanada Corporation	155,770	111,585	<b>41,963</b>
Canada	69,395	54,350	<b>22,500</b>
US <sup>1</sup>	86,375	57,235	<b>19,463</b>
Political contributions made by TransCanada subsidiaries			
US <sup>2, 3, 4, 5</sup>	8,500	86,050	<b>392,753</b>

Note: This indicator is inclusive of all TransCanada assets where TransCanada has majority operating control and is inclusive of CPG assets as of July 1, 2016.

## Corporate Governance and Ethics

	2013	2014	2015	2016	2017
<b>Governance</b>					
Size of Board of Directors (#)	11	11	12	13	<b>13.0</b>
Executive directors (#)	1	1	1	1	<b>1.0</b>
Independent directors (%)	91	91	92	92.0	<b>92.0</b>
Corporate governance guideline on Board diversity	—	—	—	Yes	<b>Yes + 30% target</b>
Women on TransCanada Board (%)	27.0	27.0	25.0	23.0	<b>23.0</b>
Average director age	62.0	63.0	63.0	62.0	<b>63.0</b>
Director retirement age	70.0	70.0	70.0	70.0	<b>70.0</b>
Separate chair and CEO	Yes	Yes	Yes	Yes	<b>Yes</b>
All committees independent	Yes	Yes	Yes	Yes	<b>Yes</b>
Annual director elections	Yes	Yes	Yes	Yes	<b>Yes</b>
Individual director elections	Yes	Yes	Yes	Yes	<b>Yes</b>
Average Board meeting attendance	100.0	98.0	96.0	100.0	<b>96.0</b>
Majority voting policy	Yes	Yes	Yes	Yes	<b>Yes</b>
Say on pay approval vote	92.7	94.3	97.1	97.5	<b>97.4</b>
Number of board interlocks	0.0	0.0	0.0	0.0	<b>0.0</b>
Clawback policy	No	Yes	Yes	Yes	<b>Yes</b>
Double-trigger vesting on change of control	No	Yes	Yes	Yes	<b>Yes</b>
Director share ownership requirements	4x cash + equity retainer	4x cash + equity retainer	4x cash + equity retainer	4x cash + equity retainer	<b>4x retainer</b>
Executive share ownership requirements	4x (CEO), 2x other executives	5x (CEO), 2x (other named executives)	5x (CEO), 2x (other named executives)	5x (CEO), 2x (other named executives)	<b>5x (CEO), 2x (other named executives)</b>
In-camera sessions at every Board and committee meeting	Yes	Yes	Yes	Yes	<b>Yes</b>
Code of business ethics	Yes	Yes	Yes	Yes	<b>Yes</b>
Board, committee and director evaluations annually	Yes	Yes	Yes	Yes	<b>Yes</b>
Board orientation and education program	Yes	Yes	Yes	Yes	<b>Yes</b>
CEO total direct compensation (CAD\$ M)	8.5	7.9	8.5	9.5	<b>9.5</b>

1 2017 USD converted to CAD using exchange rate of 1 CAD = 1.2545 USD. US political contributions and PAC disbursements are provided in USD for historical data in 2014, 2015, and 2016.

2 Political contributions made by TransCanada subsidiaries were misstated due to a reporting typo in TransCanada's 2016 CSR Report. Accurate values were reported in TransCanada's 2016 CSR Data Sheet and have been corrected in the 2017 CR Report. Therefore this restatement is not considered material.

3 The TransCanada PAC is a separate segregated fund (SSF) under US federal election law, not a subsidiary. TransCanada USA Services PAC is a connected political action committee to TransCanada Corporation, which means TransCanada Corp. can pay for its administrative costs but cannot directly deposit any funds into it.

4 2017 USD converted to CAD using exchange rate of 1 CAD = 1.45 USD. US political contributions and PAC disbursements are provided in USD for historical data in 2014, 2015, and 2016.

5 In April 2017, US\$250,315.23 was transferred from the CPG PAC to the TransCanada PAC and these PACs merged into one.

## Cautionary note

**This Corporate Responsibility Report companion document contains forward-looking information that is subject to important risks and uncertainties.**

Statements that are forward-looking are based on certain assumptions and on what we know and expect today and generally include words like anticipate, expect, believe, may, will, should, estimate or other similar words.

Forward-looking statements in this report include information about the following, among other things:

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

Forward-looking statements do not guarantee future performance. Actual events and results could be significantly different because of assumptions, risks or uncertainties related to our business or events that happen after the date of this report.

Our forward-looking information is based on key assumptions and subject to the following risks and uncertainties.

### Assumptions

- inflation rates, commodity prices and capacity prices
- nature and scope of hedging
- regulatory decisions and outcomes
- interest, tax and foreign exchange rates, including the impact of U.S. Tax Reform
- planned and unplanned outages and the use of our pipeline and energy assets

- integrity and reliability of our assets
- access to capital markets
- anticipated construction costs, schedules and completion dates
- planned wind-down of our U.S. Northeast power marketing business
- our ability to successfully implement our strategic initiatives, priorities and whether they will yield the expected benefits
- the operating performance of our pipeline and energy assets
- the amount of capacity sold and rates achieved in our pipelines businesses
- the availability and price of energy commodities
- the amount of capacity payments and revenues we receive from our energy business
- regulatory decisions and outcomes
- outcomes of legal proceedings, including arbitration and insurance claims
- performance and credit risk of our counterparties
- changes in market commodity prices
- changes in the political environment
- changes in environmental and other laws and regulations
- competitive factors in the pipeline and energy sectors
- construction and completion of capital projects
- costs for labour, equipment and materials
- access to capital markets
- interest, tax and foreign exchange rates including the impact of U.S. Tax Reform
- weather
- cyber security
- technological developments
- economic conditions in North America as well as globally

**You can read more about these factors and others in reports we have filed with Canadian securities regulators under TransCanada's profile on SEDAR at [www.sedar.com](http://www.sedar.com) and with the U.S. Securities and Exchange Commission (the SEC) at [www.sec.gov](http://www.sec.gov), including our most recent [Quarterly Report to Shareholders](#) and [2017 Annual Report](#).**

As actual results could vary significantly from the forward-looking information, you should not put undue reliance on forward-looking information and should not use future-oriented information or financial outlooks for anything other than their intended purpose. We do not update our forward-looking statements due to new information or future events, unless we are required to by law.

**This report contains references to TransCanada's website. These references are for the readers' convenience only. TransCanada is not incorporating by reference any information posted on [www.transcanada.com](http://www.transcanada.com).**





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