TransAlta renewables inc.

TransAlta Renewables Inc.

Management's Discussion and Analysis

December 31, 2018

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This Management's Discussion and Analysis ("MD&A") should be read in conjunction with our 2018 audited Consolidated Financial Statements and our 2019 Annual Information Form ("AIF") for the year ended Dec. 31, 2018. Our Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") for Canadian publicly accountable enterprises as issued by the International Accounting Standards Board ("IASB") and in effect at Dec. 31, 2018. Certain financial measures included in this MD&A do not have a standardized meaning as prescribed by IFRS. These measures may not be comparable to similar measures presented by other issuers and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. See the Non-IFRS Measures section of this MD&A for additional information. All dollar amounts in the tables are in millions of Canadian dollars, except amounts per share, which are presented in whole dollars to the nearest two decimals. In this MD&A, unless the context otherwise requires, "we", "our", "us", "TransAlta Renewables", and the "Corporation" refer to TransAlta Renewables Inc. and its subsidiaries, and "TransAlta" refers to TransAlta Corporation and its subsidiaries, other than TransAlta Renewables. Capitalized terms not otherwise defined herein have their respective meanings set forth in the Glossary of Key Terms. This MD&A is dated March 5, 2019. Additional information respecting TransAlta Renewables, including our AIF, is available on SEDAR at www.sedar.com and on our website at www.transaltarenewables.com. Information on or connected to our website is not incorporated by reference herein.

Operations of the Corporation

As at Dec. 31, 2018, TransAlta Renewables owned and operated 13 hydro facilities, 19 wind farms and one gas plant in Canada, and held economic interests in TransAlta's Wyoming Wind farm, Lakeswind wind farm, Mass Solar solar projects, the Australian Assets and the Big Level US wind development project. In addition, the Corporation has entered into an agreement to acquire the 29 MW Antrim US wind development project. Closing of the acquisition is expected to occur in late March 2019.

In total, we own, directly or through economic interests, an aggregate of 2,445 MW of gross generating capacity[1] (2,414 MW of net generating capacity[1]) in operation. TransAlta manages and operates these facilities on our behalf under the terms of a Management, Administrative and Operational Services Agreement, as amended (the "Management Agreement").

We have an economic interest in the cash flows from, and not direct ownership of, the Australian Assets, the Wyoming Wind farm, the Lakeswind wind farm and the Mass Solar solar projects. We also have an economic interest in the Big Level US wind development project, currently being constructed, and expect to acquire an economic interest in the Antrim US wind development project following satisfaction of certain closing conditions. The operational results of these assets are not consolidated into our results; however, the finance income we receive on the underlying investments is included in our consolidated net earnings.

Non-IFRS Measures

We evaluate our performance using a variety of measures. Certain of the measures discussed in this MD&A are not defined under IFRS and, therefore, should not be considered in isolation or as an alternative to or to be more meaningful than measures as determined in accordance with IFRS when assessing our financial performance or liquidity. These measures may not be comparable to similar measures presented by other issuers.

The Corporation's key non-IFRS measures are comparable earnings before interest, taxes, depreciation, and amortization ("comparable EBITDA"), adjusted funds from operations ("AFFO") and cash available for distribution ("CAFD"). Comparable EBITDA is comprised of our reported EBITDA adjusted to exclude the impact of the change in fair value of Class B shares, change in fair value of financial assets, foreign exchange gains and losses and impairment; plus the comparable EBITDA of the facilities in which we hold an economic interest, which is the facilities' reported EBITDA adjusted for: 1) finance lease income and the change in the finance lease receivable amount; 2) contractually fixed management costs; 3) interest earned on the prepayment of certain transmission costs; and 4) insurance recovery. Comparable EBITDA is presented to provide management and investors with a proxy for the amount of cash generated from operating activities before net interest expense, non-controlling interest, income taxes and the impacts of timing on the finance income from subsidiaries of TransAlta in which we have an economic interest. We present comparable EBITDA along with operational information of the assets in which we own an economic interest so that readers can better understand and evaluate the drivers of those assets in which we have the economic interest. Since the economic interests are designed to provide the Corporation with returns as if we owned the assets themselves, presenting the operational information and comparable EBITDA provides a more complete picture for readers to understand the underlying nature of the investments and the resultant cash flows that would otherwise only be presented as finance income from the investments. AFFO is calculated as the cash flow from operating activities before changes in working capital, less sustaining capital expenditures, distributions paid to subsidiaries' non-controlling interest and finance and interest income, plus AFFO of the assets owned through economic interests, which is calculated as comparable EBITDA from the economic interests less the change in long-term receivable, sustaining capital expenditures, current income tax expense, insurance recovery, and currency adjustments. AFFO provides users with a proxy for the amount generated from operating activities and investments in subsidiaries of TransAlta in which we have an economic interest. CAFD is calculated as AFFO less scheduled principal repayments of amortizing debt. CAFD can be used as a proxy for the cash that will be available to common shareholders of the Corporation. One of the primary objectives of the Corporation is to provide reliable and stable cash flows, and presenting AFFO and CAFD assists readers in assessing our cash flows in comparison to prior periods. See the Reconciliation of Non-IFRS Measures section of this MD&A for additional information.

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(1) We measure capacity as net maximum capacity, which is consistent with industry standards. Capacity figures represent capacity owned and in operation unless otherwise stated. The gross capacity reflects the basis of consolidation of underlying assets owned, plus those in which we hold an economic interest. Net capacity deducts capacity attributable to non-controlling interest in these assets.
(2) Weighted average based on capacity.

Additional IFRS Measures

An additional IFRS measure is a line item, heading or subtotal that is relevant to an understanding of the financial statements but is not a minimum line item mandated under IFRS, or the presentation of a financial measure that is relevant to an understanding of the financial statements, but is not presented elsewhere in the financial statements. We have included line items entitled “gross margin” and “operating income” in our Consolidated Statements of Earnings. Presenting these line items provides management and investors with a measure of ongoing operating performance that is readily comparable from period to period.

Forward-Looking Statements

This MD&A includes forward-looking statements. All forward-looking statements are based on our beliefs as well as assumptions based on information available at the time the assumptions were made and on management's experience and perception of historical trends, current conditions and expected future developments, as well as other factors deemed appropriate in the circumstances. Forward-looking statements are not facts, but only predictions and generally can be identified by the use of statements that include phrases such as "may", "will", "believe", "expect", "anticipate", "intend", "plan", "foresee", "potential", "enable", "continue", "forecast" or other comparable terminology. These statements are not guarantees of our future performance and are subject to risks, uncertainties and other important factors that could cause our actual performance to be materially different from that projected.

In particular, this MD&A contains forward-looking statements pertaining to our business and anticipated future financial performance including, but not limited to: the forecasted business environment in Canada, Australia and the United States; spending on growth and sustaining capital and productivity projects, including sustaining capital expenditures of subsidiaries of TransAlta in which we have an economic interest; the benefits of the recent acquisition of an interest in three renewable projects from TransAlta; outstanding debt levels; our 2019 Outlook, including Comparable EBITDA, AFFO and CAFD; the total construction and investment costs of the Big Level and Antrim wind projects; renewable energy production from our wind and hydro assets in 2019; expectations relating to the dividend reinvestment plan ("DRIP"), including TransAlta's intention to not participate in the DRIP; the closing of the acquisition of the Antrim wind development project; the expected commercial operation dates for the Big Level and Antrim wind projects; our foreign exchange risk strategy; expectations regarding net interest payments and volume of debt; our ability to maintain adequate availability; expectations regarding project level debt; statutory blended tax rates and our cash tax horizon; expectations in terms of the cost of operations and maintenance, including maintenance performed by third parties, and the variability of those costs; the payment of future dividends; expectations in respect of generation availability, Capacity and production; the timing and completion of projects under development and the costs thereof and the funding of such costs; actions to manage certain risks, including specific notions identified to manage liquidity risk, interest rate risk, projects risks and reputation risk; expected governmental regulatory regimes, legislation and programs, including Canadian federal legislation pertaining to greenhouse gas emissions and the impact on the Corporation of recent regulatory developments in Ontario; the procurement process for renewable generation in Alberta; the value of offsets generated by our renewable facilities; expectations regarding the implementation of new IFRS standards; expectations regarding seasonality of wind and hydro production; expectations on our ability to access capital markets on reasonable terms; expectations regarding our decommissioning and restoration activities; and our expectations regarding the outcome of existing or potential legal or contractual claims, regulatory investigations and disputes, including the dispute with Fortescue Metals Group Ltd. ("FMG") over the commissioning of the South Hedland Power Station. The forward-looking statements contained in this MD&A are based on many assumptions including, but not limited to, the following: no significant changes to applicable laws and regulations, including any tax and regulatory changes in the markets in which we operate; no material adverse impacts to the investment and credit markets; our relationship with TransAlta not changing materially; and assumptions regarding our current strategy and priorities, including as it pertains to our growth strategy.

Factors that may adversely impact our forward-looking statements include, but are not limited to, risks relating to: changes in general economic conditions, including interest rates; operational risks involving our facilities, including Unplanned Outages at such facilities; disruptions in the transmission and distribution of electricity; the effects of weather; disruptions in the source of water, wind, or gas required to operate our facilities; natural disasters; the threat of domestic terrorism, cyberattacks and other man-made disasters; equipment failure and our ability to carry out repairs in a cost-effective or timely manner; industry risk and competition; fluctuations in the value of foreign currencies; the need for additional financing and the ability to access financing at a reasonable cost; structural subordination of securities; counterparty credit risk; insurance coverage; our provision for income taxes; disputes with counterparties and legal and contractual proceedings involving the Corporation; reliance on key personnel; the regulatory and political environments in the

jurisdictions in which we operate; increasingly stringent environmental requirements and changes in, or liabilities under, these requirements; and the risks associated with development projects and acquisitions. The foregoing risk factors, among others, are described in further detail in the Risk Factors section of our AIF, which is available on SEDAR at www.sedar.com.

Readers are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements included in this document are made only as of the date hereof and we do not undertake to publicly update these forward-looking statements to reflect new information, future events or otherwise, except as required by applicable laws. The purpose of the financial outlooks contained herein is to give the reader information about management's current expectations and plans and readers are cautioned that such information may not be appropriate for other purposes. In light of these risks, uncertainties and assumptions, the forward-looking events might occur to a different extent or at a different time than we have described, or might not occur at all. We cannot assure that projected results or events will be achieved.

Highlights

Consolidated Financial Highlights

Year ended Dec. 31	2018	2017	2016
Renewable energy production (GWh)[1]	**3,652**	3,623	3,541
Revenues	**462**	459	259
Net earnings (loss) attributable to common shareholders	**236**	9	(2)
Comparable EBITDA[2]	**430**	424	407
Adjusted funds from operations[2]	**343**	328	284
Cash flow from operating activities	**385**	290	282
Cash available for distribution[2]	**295**	284	245
Net earnings (loss) per share attributable to common shareholders, basic and diluted	**0.92**	0.04	(0.01)
Adjusted funds from operations per share[2]	**1.33**	1.40	1.27
Cash available for distribution per share[2]	**1.15**	1.21	1.10
Dividends declared per common share	**0.94**	0.91	0.96
Dividends paid per common share[3]	**0.94**	0.90	0.88

(1) Includes production from US Wind and Solar and excludes Canadian and Australian gas-fired generation. Production is not a key revenue driver for gas-fired facilities as most of their revenues are capacity based.
(2) Refer to the Non-IFRS Measures section of this MD&A for further discussion of these items.
(3) Includes DRIP non-cash payments

As at Dec. 31	2018	2017	2016
Gas installed capacity (MW)[1]	**949**	956	931
Renewables installed capacity (MW)[2]	**1,496**	1,388	1,388
Total assets	**3,747**	3,628	3,835
Long-term debt[3]	**932**	1,043	827
Total long-term liabilities	**1,192**	1,075	1,237

(1) Includes Canadian and Australian gas-fired generation.
(2) Includes US Wind and Solar installed capacity.
(3) Including current portion.

Our renewable energy production increased 29 GWh, primarily due to the acquisition of the Kent Breeze and Lakeswind wind farms and the Mass Solar solar projects in May 2018.

Our AFFO and CAFD also increased $15 million and $11 million, respectively, primarily through the Australian Assets and our US Wind and Solar portfolio of assets. The Australian Assets contributed AFFO of $143 million during the year compared to $125 million in 2017. AFFO from assets owned directly was impacted by higher levels of sustaining capital.

Net earnings (loss) attributable to common shareholders increased by $227 million primarily as a result of higher finance income of $90 million. A $137 million prior period impairment on our investment in the Australian Assets negatively impacted 2017's results.

Significant Events in 2018 and Subsequent Events

We achieved significant milestones in 2018:

- On Oct. 19, 2018, we announced that the 17.25 MW expansion of the wind facility at Kent Hills, New Brunswick, was fully operational, bringing total generating capacity at the site to 167 MW.
- Acquisition of US wind projects:
  - On Feb. 20, 2018, we entered into an arrangement to acquire economic interests in two construction-ready projects in the Northeastern United States. The wind development projects consist of: (i) a 90 MW project located in Pennsylvania that has a 15-year power purchase agreement ("PPA") with Microsoft Corp. ("Big Level") and (ii) a 29 MW project located in New Hampshire with two 20-year PPAs with counterparties that have a Standard & Poor's credit ratings of A+ or better ("Antrim"). The commercial operation date for both projects is expected during the second half of 2019. The acquisition of Antrim remains subject to certain closing conditions. TransAlta expects the Antrim acquisition to close in late March 2019.
  - On April 20, 2018, we completed the acquisition of an initial economic interest in Big Level through the subscription of $39 million (US$31 million) of tracking preferred shares of a subsidiary of TransAlta.
  - On Sept. 28, 2018, we funded an additional $22 million (US$17 million) of construction costs for the Big Level wind development project by subscribing for an interest-bearing promissory note issued by the project entity, a subsidiary of TransAlta.
  - On Jan. 2, 2019, the Corporation funded an additional $45 million (US$33 million) of construction costs for the Big Level wind development project by subscribing for an interest-bearing promissory note issued by the project entity, a subsidiary of TransAlta.
- On June 22, 2018, we issued 11,860,000 common shares at a price of $12.65 per share for gross proceeds of approximately $150 million.
- On May 31, 2018, we acquired 100 per cent of the equity interests in three entities from TransAlta, which provided for the transfer to us of the direct ownership of the 20 MW Kent Breeze wind farm located in Ontario for a total purchase price of $39 million. We also acquired from TransAlta an economic interest in the 50 MW Lakeswind wind farm in Minnesota ("Lakeswind") and 21 MW of solar projects located in Massachusetts ("Mass Solar"). The total purchase price for the two assets was $65 million (US$50 million), net of the assumption of $62 million (US$48 million) of tax equity obligations and project debt. On June 28, 2018, the Corporation subscribed for an additional $33 million (US$25 million) of tracking preferred shares of a subsidiary of TransAlta, in order to fund the repayment of Mass Solar's project debt.
- On May 31, 2018, the Board of Directors of the Corporation (the "Board") approved the implementation of a DRIP for Canadian holders of common shares of TransAlta Renewables.

See the Significant and Subsequent Events section of this MD&A for more information on these events.

Reconciliation of Non-IFRS Measures

Presenting AFFO provides users with a proxy for the amount of cash generated from operating activities of our business and from investments in subsidiaries of TransAlta in which we have an economic interest, before changes in working capital. CAFD provides users with a proxy for the cash that will be available to common shareholders of the Corporation. One of the primary objectives of the Corporation is to provide reliable and stable cash flows, and presenting AFFO and CAFD assists readers in assessing our cash flows in comparison to prior periods. See the Non-IFRS Measures section of this MD&A for additional information. AFFO per share and CAFD per share are calculated using the weighted average number of common shares outstanding during the period.

The table below reconciles our cash flow from operating activities to our AFFO and CAFD:

Year ended Dec. 31	**2018**	2017	2016
Cash flow from operating activities	**385**	290	282
Change in non-cash operating working capital balances	**5**	17	(7)
Cash flow from operations before changes in working capital	**390**	307	275
Adjustments:			
Sustaining capital expenditures	**(34)**	(27)	(11)
Distributions paid to subsidiaries' non-controlling interest	**(4)**	(3)	(5)
Finance and interest income - economic interests[1]	**(171)**	(86)	(151)
AFFO - economic interests[1]	**162**	137	176
AFFO	**343**	328	284
Deduct:			
Principal repayments of amortizing debt	**(48)**	(44)	(39)
CAFD	**295**	284	245
Weighted average number of common shares outstanding in the period (millions)	**257**	235	223
AFFO per share	**1.33**	1.40	1.27
CAFD per share	**1.15**	1.21	1.10

(1) Refer to the reconciliation of the comparable EBITDA of the facilities in which we hold an economic interest to the reported finance income table in this MD&A.

Presenting comparable EBITDA provides management and investors with a proxy for the amount of cash generated from operating activities before net interest expense, non-controlling interest, income taxes and the impacts of timing on the finance income from subsidiaries of TransAlta in which we have an economic interest. We present comparable EBITDA along with operational information of the assets in which we own an economic interest so that readers can better understand and evaluate the drivers of those assets in which we have the economic interest. See the Non-IFRS Measures section of this MD&A for additional information.

The tables below reconcile our reported EBITDA to comparable EBITDA:

Year ended Dec. 31, 2018

	Reported	**Adjustments**	**Economic interests**	**Comparable total**
Revenues	**462**	**—**	**200**	**662**
Fuel, royalties and other costs of sales[1]	**98**	**—**	**6**	**104**
Gross margin	**364**	**—**	**194**	**558**
Operations, maintenance and administration[2]	**86**	**—**	**39**	**125**
Taxes, other than income taxes	**8**	**—**	**1**	**9**
Insurance recovery	**—**	**—**	**(6)**	**(6)**
Finance income	**(129)**	**129**	**—**	**—**
Interest income	**(45)**	**45**	**—**	**—**
Change in fair value of financial assets	**1**	**(1)**	**—**	**—**
Foreign exchange gain	**(6)**	**6**	**—**	**—**
Earnings before interest, taxes, depreciation and amortization	**449**	**(179)**	**160**	**430**

(1) Amounts related to economic interests include interest earned on the prepayment of certain transmission costs.
(2) Amounts related to economic interests include the effect of contractually fixed management costs.

Year ended Dec. 31, 2017

	Reported	Adjustments	Economic interests	Comparable total
Revenues[1]	459	—	202	661
Fuel, royalties and other costs of sales[2]	97	—	14	111
Gross margin	362	—	188	550
Operations, maintenance and administration[3]	83	—	35	118
Taxes, other than income taxes	8	—	—	8
Finance income[4]	(39)	39	—	—
Interest income[4]	(48)	48	—	—
Change in fair value of Class B shares	2	(2)	—	—
Foreign exchange gain	(6)	6	—	—
Impairment of investment	137	(137)	—	—
Earnings before interest, taxes, depreciation and amortization	225	46	153	424

(1) Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable amount.
(2) Commencing in the third quarter of 2017, amounts related to economic interests include interest earned on the prepayment of certain transmission costs.
(3) Amounts related to economic interests include the effect of contractually fixed management costs.
(4) Commencing in the first quarter of 2018, we are required (due to the adoption of IFRS 9) to present interest income as a separate line item on the Statement of Earnings. As a result, interest income earned on our investment in the Australian Assets is no longer included in the finance income line item on the Statement of Earnings.

Year ended Dec. 31, 2016

	Reported	Adjustments	Economic interests[3]	Comparable total
Revenues[1]	259	—	371	630
Fuel, royalties and other costs of sales	23	—	83	106
Gross margin	236	—	288	524
Operations, maintenance and administration[2]	53	—	56	109
Taxes, other than income taxes	7	—	1	8
Finance income[4]	(109)	109	—	—
Interest income[4]	(42)	42	—	—
Change in fair value of Class B shares	142	(142)	—	—
Foreign exchange loss	35	(35)	—	—
Earnings before interest, taxes, depreciation and amortization	150	26	231	407

(1) Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable amount.
(2) Amounts related to economic interests include the effect of contractually fixed management costs.
(3) Includes results for the Canadian Assets, which were acquired on Nov. 30, 2016.
(4) Commencing in the first quarter of 2018, we are required (due to the adoption of IFRS 9) to present interest income as a separate line item on the Statement of Earnings. As a result, interest income earned on our investment in the Australian Assets is no longer included in the finance income line item on the Statement of Earnings.

The table below reconciles the comparable EBITDA of the facilities in which we hold an economic interest to the reported finance and interest income:

Year ended Dec. 31	**2018**			2017		
	US Wind and Solar[(1)]	**Australian Gas**	**Total**	US Wind	Australian Gas	Total
Comparable EBITDA	**30**	**130**	**160**	14	139	153
Sustaining capital	**(2)**	**(2)**	**(4)**	(2)	(10)	(12)
Change in long-term receivable	**—**	**14**	**14**	—	—	—
Current income tax expense	**—**	**(1)**	**(1)**	—	—	—
Tax equity distributions	**(3)**	**—**	**(3)**	—	—	—
Insurance recovery	**(6)**	**—**	**(6)**	—	—	—
Interest income	**—**	**3**	**3**	—	—	—
Currency adjustment, reserves and other	**—**	**(1)**	**(1)**	—	(4)	(4)
AFFO	**19**	**143**	**162**	12	125	137
Return of Solomon proceeds	**—**	**28**	**28**	—	—	—
Return of capital[(2)]	**(4)**	**(13)**	**(17)**	(3)	(42)	(45)
Effects of changes in working capital and other timing	**(4)**	**2**	**(2)**	(3)	(3)	(6)
Finance and interest income	**11**	**160**	**171**	6	80	86

Year ended Dec. 31	2016					
	Canadian Wind[(3)]	Canadian Hydro[(3)]	US Wind	Canadian Gas[(3)]	Australian Gas	Total
Comparable EBITDA	9	2	15	75	130	231
Sustaining capital	(3)	—	(2)	(6)	(14)	(25)
Change in long-term receivable	—	—	—	—	(15)	(15)
Current income tax expense	—	—	—	(11)	—	(11)
Unrealized risk management loss	—	—	—	1	—	1
Currency adjustment, reserves and other	—	(1)	—	(2)	(2)	(5)
AFFO	6	1	13	57	99	176
Return of capital	—	—	—	(20)	—	(20)
Effects of changes in working capital and other timing	—	—	(2)	—	(3)	(5)
Finance and interest income	6	1	11	37	96	151

Finance and interest income is presented in the statement of earnings as follows:

Year ended Dec. 31	**2018**			2017			2016			
	US Wind and Solar[(1)]	**Australian Gas**	**Total**	US Wind	Australian Gas	Total	US Wind	Australian Gas	Canadian Assets	Total
Finance income	**11**	**118**	**129**	6	33	39	11	54	44	109
Interest income[(4)]	**—**	**42**	**42**	—	47	47	—	42	—	42
Total finance and interest income	**11**	**160**	**171**	6	80	86	11	96	44	151

(1) Includes Lakeswind wind farm and Mass Solar solar projects from May 31, 2018 (see the Significant and Subsequent Events section of the MD&A).
(2) 2017 includes redemptions of preferred shares tracking earnings and distributions of TransAlta Wyoming Wind.
(3) On Nov. 30, 2016, we acquired the Canadian Assets.
(4) Commencing in the first quarter of 2018, we are required (due to the adoption of IFRS 9) to present interest income as a separate line item on the Statement of Earnings. As a result, interest income earned on our investment in the Australian Assets is no longer included in the finance income line item on the Statement of Earnings.

In November 2017, FMG repurchased the Solomon Power Station from TransAlta Energy (Australia) Pty Ltd. ("TEA") for approximately US$335 million. We had an economic interest in the cash flows generated from the Solomon Power Station. In 2017, we received approximately $218 million of the Solomon proceeds through a combination of the redemption of a portion of the mandatory redeemable preferred shares and the redemption of a portion of the preferred shares of TEA. The remaining balance of the proceeds were loaned to us from TEA pursuant to the terms of a temporary loan agreement.

In the second and third quarters of 2018, we repaid to TEA approximately $86 million of the temporary loan. The funds repaid in the second quarter were used by TEA to pay income tax related to the sale of the Solomon Power Station. In the second quarter of 2018, we recognized an additional $28 million in dividend income on the TEA tracking preferred shares in income. This amount represents an additional TEA disbursement of the proceeds of the sale of the Solomon Power Station that are provided to us as soon as practicable based on statutory and tax requirements in Australia. The remaining balance of the temporary loan was repaid in December 2018 (see Note 9 of the annual Consolidated Financial Statements for additional information).

Reconciliation of Comparable EBITDA to AFFO

Year ended Dec. 31	**2018**			2017			2016		
	Owned assets[1]	**Economic interests**	**Total**	Owned assets	Economic interests	Total	Owned assets	Economic interests	Total
Comparable EBITDA	**270**	**160**	**430**	271	153	424	176	231	407
Interest expense[2]	**(45)**	**—**	**(45)**	(50)	—	(50)	(48)	—	(48)
Change in long-term receivable	**—**	**14**	**14**	—	—	—	—	(15)	(15)
Sustaining capital expenditures	**(34)**	**(4)**	**(38)**	(27)	(12)	(39)	(11)	(25)	(36)
Current income tax refund (expense)	**(6)**	**(1)**	**(7)**	(6)	—	(6)	(5)	(11)	(16)
Tax equity distributions	**—**	**(3)**	**(3)**	—	—	—	—	—	—
Distributions paid to subsidiaries' non-controlling interest	**(4)**	**—**	**(4)**	(3)	—	(3)	(5)	—	(5)
Unrealized risk management (gain) loss	**—**	**—**	**—**	1	—	1	(1)	1	—
Realized foreign exchange gain	**—**	**—**	**—**	1	—	1	—	—	—
Insurance recovery	**—**	**(6)**	**(6)**	—	—	—	—	—	—
Interest income	**—**	**3**	**3**	—	—	—	—	—	—
Currency adjustment, reserves and other	**—**	**(1)**	**(1)**	4	(4)	—	2	(5)	(3)
AFFO	**181**	**162**	**343**	191	137	328	108	176	284

(1) Includes results of the Kent Breeze wind farm from May 31, 2018 (see the Significant and Subsequent Events section of the MD&A).
(2) Net of other interest income.

Ability to Deliver Financial Results

The metrics we use to track our performance are comparable EBITDA, AFFO and CAFD. The table below compares our target to actual amounts:

Year ended Dec. 31		**2018**	2017
Comparable EBITDA	Target	**400-420**	425-450
	Actual	**430**	424
AFFO	Target	**315-340**	320-350
	Actual	**343**	328
CAFD	Target	**260-290**	235-260
	Actual	**295**	284

Discussion of Comparable EBITDA

The amounts discussed in this section include operational metrics and financial information related to our fuel types and include investments in the economic interests of TransAlta subsidiaries. Since the investments in these economic interests provide us with returns as if we owned the assets, presenting the operational information provides users with information to be able to assess the performance of the assets that generate the finance income related to the economic interests. All the assets in the US Wind and Solar and Australian Gas businesses are owned through investments in an economic interest. The comparable EBITDA of the assets in which we have an economic interest is reconciled to the finance income recognized in our Consolidated Financial Statements in the Reconciliation of Non-IFRS Measures section of this MD&A.

The following table summarizes operational data and comparable EBITDA by fuel type:

Year ended Dec. 31	Long-term average renewable energy production (GWh)[1]	Production (GWh)		Comparable EBITDA	
		2018	2017	**2018**	2017
Canadian Wind	**3,033**	**2,815**	2,840	**188**	194
Canadian Hydro	**464**	**388**	419	**17**	19
US Wind and Solar	**450**	**449**	364	**30**	14
Total - Renewable energy	**3,947**	**3,652**	3,623	**235**	227
Canadian Gas		**1,155**	1,272	**84**	77
Australian Gas		**1,814**	1,803	**130**	139
Corporate		**—**	—	**(19)**	(19)
Total		**6,621**	6,698	**430**	424

(1) Long-term average is calculated on an annualized basis from the average annual energy yield predicted from our simulation model based on historical resource data performed over a period of typically 15 years for wind and 30 years for hydro.

Renewable energy production for the year ended Dec. 31, 2018, increased 29 GWh compared to 2017. This increase was mainly due to the acquisitions of Kent Breeze, Lakeswind and Mass Solar and the Kent Hills expansion achieving commercial operation in mid-October, partially offset by lower wind and water resources, which impacted generation from the rest of the fleet.

Canadian Wind

Year ended Dec. 31	2018[1]	2017
Production *(GWh)*	**2,815**	2,840
Gross installed capacity *(MW)*	**1,169**	1,132
Revenues	**239**	241
Royalties and other costs of sales	**12**	11
Comparable gross margin	**227**	230
Operations, maintenance and administration	**34**	31
Taxes, other than income taxes	**5**	5
Comparable EBITDA	**188**	194

(1) Includes the results of the Kent Breeze wind farm from the acquisition date of May 31, 2018.

Production for the year ended Dec. 31, 2018, decreased 25 GWh compared to 2017. The increase in production from the Kent Hills expansion which achieved commercial operation in mid-October and the acquisition of Kent Breeze in 2018, was offset by lower wind resource in Western Canada and higher paid curtailments in Ontario.

Comparable EBITDA decreased $6 million compared to 2017, mainly due to lower wind resource and higher contract costs on certain long-term service agreements, partially offset by favourable pricing and contributions from the Kent Hills expansion and Kent Breeze.

Canadian Hydro

Year ended Dec. 31	**2018**	2017
Production *(GWh)*	**388**	419
Gross installed capacity *(MW)*	**112**	112
Revenues	**26**	27
Royalties and other costs of sales	**3**	3
Comparable gross margin	**23**	24
Operations, maintenance and administration	**4**	3
Taxes, other than income taxes	**2**	2
Comparable EBITDA	**17**	19

Production for the year ended Dec. 31, 2018, decreased 31 GWh compared to 2017, due to lower water resources and facility maintenance outages at several facilities. Comparable EBITDA for the year ended Dec. 31, 2018 was $2 million lower compared to 2017, mainly due to lower production in 2018.

US Wind and Solar

Year ended Dec. 31	**2018**[(1)]	2017
Production *(GWh)*	**449**	364
Gross installed capacity *(MW)*	**215**	144
Revenues	**35**	22
Royalties and other costs of sales	**2**	2
Comparable gross margin	**33**	20
Operations, maintenance and administration	**8**	6
Insurance recovery	**(6)**	—
Taxes, other than income taxes	**1**	—
Comparable EBITDA	**30**	14

(1) Includes the results of the Lakeswind wind farm and Mass Solar solar projects from the acquisition date of May 31, 2018. The Big Level wind development project is excluded as it is in construction and has not achieved commercial operations.

As at Dec. 31, 2018, US Wind and Solar consists of the Wyoming Wind farm, Lakeswind wind farm, and Mass Solar solar projects, whereas in 2017 it consisted solely of the Wyoming Wind farm.

Production for the year ended Dec. 31, 2018, increased by 85 GWh compared to 2017, mainly due to the acquisition of the Lakeswind wind farm and Mass Solar solar projects in the second quarter of 2018, partially offset by lower production at Wyoming Wind due to lower wind resource. Comparable EBITDA is $16 million higher compared to 2017 due to the Wyoming Wind insurance recovery related to a fire at the site in 2017 and EBITDA from the Lakeswind wind farm and Mass Solar solar projects.

Canadian Gas

Year ended Dec. 31	2018	2017
Production *(GWh)*	**1,155**	1,272
Gross installed capacity *(MW)*	**499**	506
Revenue	**197**	191
Fuel and purchased power	**83**	83
Comparable gross margin	**114**	108
Operations, maintenance and administration	**29**	30
Taxes, other than income taxes	**1**	1
Comparable EBITDA	**84**	77

Canadian Gas consists solely of the Sarnia co-generation facility.

Production for the year ended Dec. 31, 2018, decreased by 117 GWh compared to 2017, due to lower market demand. For the year ended Dec. 31, 2018, comparable EBITDA increased $7 million from 2017 mainly due to higher revenue resulting from periods of market volatility and the corresponding higher pricing.

Australian Gas

Year ended Dec. 31	2018	2017
Production *(GWh)*	**1,814**	1,803
Gross installed capacity *(MW)*	**450**	450
Revenues	**165**	135
Finance lease income[1]	**—**	45
Fuel and purchased power[2]	**(4)**	(12)
Comparable gross margin	**161**	168
Operations, maintenance and administration[3]	**31**	29
Comparable EBITDA	**130**	139

(1) 2017 finance lease income adjusted for change in finance lease receivable.
(2) Commencing in the third quarter of 2017, adjusted for interest earned on the prepayment of certain transmission costs.
(3) Includes the effect of contractually fixed management costs.

Comparable EBITDA decreased by $9 million compared to 2017. Comparable EBITDA from the South Hedland Power Station was offset by the termination of the Solomon Power Station contract. Higher operations, maintenance and administration costs arose from the addition of South Hedland. Due to the nature of our contracts, the increased production in the year ended Dec. 31, 2018, did not have a significant financial impact, as revenues are generally derived from capacity payments and fuel costs are passed through to the customers.

Corporate

Year ended Dec. 31	2018	2017
Operations, maintenance and administration	**19**	19
Comparable EBITDA	**(19)**	(19)

Corporate costs were consistent with prior year.

Significant and Subsequent Events

Expansion of the Kent Hills Wind Facility
On Oct. 19, 2018, we announced that the 17.25 MW expansion of the wind facility at Kent Hills, New Brunswick was fully operational, bringing total generating capacity at the site to 167 MW. In 2017, we entered into a 17-year PPA with New Brunswick Power Corporation ("NB Power") for the sale of all power generated by the additional capacity from the project. At the same time, the term of the Kent Hills 1 contract with NB Power was extended from 2033 to 2035, matching the life of the Kent Hills 2 and recently completed Kent Hills 3 wind projects. We own 83 per cent of the Kent Hills wind facility and Natural Forces Technologies Inc. owns the remaining 17 per cent.

Acquisition of Three Renewables Assets
On May 31, 2018, we acquired 100 per cent of the equity interests in three entities from TransAlta, which provided for, among other things, the transfer to TransAlta Renewables of the direct ownership of the 20 MW Kent Breeze wind farm located in Ontario for a total purchase price of $39 million. The acquisition was accounted for as a business combination under common control, as TransAlta controlled Kent Breeze prior to, and after, the acquisition by TransAlta Renewables. The assets and liabilities acquired have been recognized at the book values previously recognized by TransAlta at May 31, 2018, and not at their fair values. See Note 4 of our Consolidated Financial Statements for additional information.

On May 31, 2018, we also acquired from TransAlta an economic interest in the 50 MW Lakeswind wind farm in Minnesota and 21 MW of solar projects located in Massachusetts (Mass Solar). The total purchase price for the two assets was $65 million (US$50 million), net of the indirect economic assumption of $62 million (US$48 million) of tax equity obligations and project debt. Our investment consists of tracking preferred shares of a subsidiary of TransAlta that provides us with an economic interest based on cash flows broadly equal to the underlying net distributable profits of the entities that own Lakeswind wind farm and Mass Solar solar projects.

The three renewable assets have an average weighted contract life of approximately 15 years. The acquired assets are a natural fit for us given our focus on diversified, highly contracted cash flows from strong counterparties.

On June 28, 2018, we subscribed for an additional $33 million (US$25 million) of tracking preferred shares of a subsidiary of TransAlta, in order to fund the repayment of Mass Solar's project debt.

Acquisition of US Wind Projects
On Feb. 20, 2018, we announced that we had entered into an arrangement to acquire economic interests in two construction-ready projects in the Northeastern United States. The wind development projects consist of: (i) a 90 MW project located in Pennsylvania that has a 15-year PPA with Microsoft Corp. (Big Level) and (ii) a 29 MW project located in New Hampshire with two 20-year PPAs with counterparties that have a Standard & Poor's credit ratings of A+ or better (Antrim). The commercial operation date for both projects is expected during the second half of 2019. A subsidiary of TransAlta acquired Big Level on March 1, 2018, while the acquisition of Antrim remains subject to certain closing conditions. TransAlta expects the Antrim acquisition to close by the end of March 2019.

Pursuant to the arrangement with TransAlta, we expect to fund the total estimated construction and acquisition costs of the Big Level and Antrim wind projects of US$240 million through the subscription of tracking preferred shares or interest-bearing promissory notes. We expect to fund these costs using existing liquidity and tax equity.

On April 20, 2018, we completed the acquisition of an initial economic interest in Big Level through the subscription of $39 million (US$31 million) of tracking preferred shares of a subsidiary of TransAlta. The tracking preferred shares will pay quarterly dividends based on the pre-tax net earnings of the US wind projects, once commissioned.

On Sept. 28, 2018, we funded an additional $22 million (US$17 million) of construction costs for the Big Level wind development project by subscribing for an interest-bearing promissory note issued by the project entity, a subsidiary of TransAlta. On Jan. 2, 2019, the Corporation funded an additional $45 million (US$33 million) of construction costs for the Big Level wind development project by subscribing for an interest-bearing promissory note issued by the project entity, a subsidiary of TransAlta. The notes bear interest at the US LIBOR one month rate plus 170 basis points per annum. The outstanding principal and accrued interest is due to be repaid to the Corporation upon the earlier of: (i) 45 days from the commercial operation of the project; (ii) the receipt of the tax equity financing proceeds by the project; and (iii) 36 and 33 months, respectively, from the date of issuance of the promissory notes.

Common Share Issuance
On June 22, 2018, we issued 11,860,000 common shares at a price of $12.65 per share for gross proceeds of approximately $150 million. The shares were issued under a bought deal offering through a syndicate of underwriters.

The net proceeds were used by TransAlta Renewables to partially repay drawn amounts under its credit facility, which were drawn to fund the acquisitions described above. The additional liquidity under the credit facility will be used for general corporate purposes, including the payment of ongoing construction costs associated with such acquisitions. TransAlta did not purchase any of these common shares.

Dividend Reinvestment Plan
On May 31, 2018, the Board approved the implementation of a DRIP for Canadian holders of common shares of TransAlta Renewables. Commencing with the dividend payable on July 31, 2018, eligible shareholders may elect to automatically reinvest monthly dividends into additional common shares of the Corporation. The price for common shares under the DRIP will be 98 per cent of the average market price of the common shares for the five trading days on which not less than 500 common shares of the Corporation are traded immediately prior to the dividend payment date. Eligible shareholders are not required to participate in the DRIP. TransAlta has indicated it does not intend to participate in the DRIP. In 2018, TransAlta Renewables issued approximately 1.0 million shares under the DRIP, for total equity value of $12 million.

MRPS Redemption
In late December 2018 and early January 2019, the Corporation and TransAlta executed a series of transactions in response to the enactment of anti-hybrid tax rules within Australia. In December 2018, TEA redeemed $107 million of the MRPS for cash consideration. Just prior to this redemption, the Corporation repaid to TEA the remaining balance due on the TEA Loan (see Note 17 of our annual Consolidated Financial Statements for additional information). In January 2019, TEA redeemed the remaining outstanding balance of the MRPS of $489 million (AUD$509 million) and approximately AUD$41 million of the preferred shares of TEA for cash consideration. Immediately following those redemptions, the Corporation subscribed for AUD$550 million of preferred shares of a subsidiary of TransAlta that track the underlying economics of an amortizing term loan payable held by TEA with another subsidiary of TransAlta. The tracking preferred shares will pay dividends, as declared, broadly equal to the interest payments on the underlying loan. Overall, there was no net change in the total amount of our investment in the Australian Assets.

Strategy and Capability to Deliver Results

Our objectives are to (i) provide stable, consistent returns for investors through the ownership of, and investment in, highly contracted renewable and natural gas power generation and other infrastructure assets that provide stable cash flow primarily through long-term contracts with strong counterparties; (ii) pursue and capitalize on strategic growth opportunities in the renewable and natural gas power generation and other infrastructure sectors; (iii) maintain diversity in terms of geography, generation and counterparties; and (iv) pay out 80 to 85 per cent of cash available for distribution to the shareholders of the Corporation on an annual basis.

Our strategies and capabilities to deliver on our objectives are as follows:

Financial Strategy
Our financial strategy is to maintain a strong financial position to provide a solid foundation for our core business and growth. A strong financial position improves our ability to create stable, consistent returns.

Contracting Strategy
Through the use of PPAs, including the TransAlta PPAs, our facilities and those in which we have an economic interest are highly contracted. Substantially all the capacity is contracted over the next six years, and gradually decreases thereafter over a period extending to 28 years. The weighted average remaining contractual life of our PPAs is approximately 11 years.

Operational Strategy
Our wind, hydro, solar and gas facilities have an established track record of operating history and performance. Excluding the gas pipeline in Western Australia, the South Hedland Power Station (which was commissioned in July 2017) and the Kent Hills expansion (which was commissioned in October 2018), our assets have been in operation for approximately six to 28 years.

TransAlta provides management, administrative and operational services to the Corporation. The members of TransAlta's management team who are responsible for managing our operations have extensive experience in the power generation business. The employees of TransAlta providing operational services at our facilities are the same individuals who perform such services for TransAlta.

Growth Strategy

Our growth strategy is to develop or acquire highly contracted renewable and natural gas power generation facilities and other infrastructure assets that generate stable cash flows, with the objective of achieving returns on invested capital. The successful execution of our growth strategy requires careful timing and business judgment, as well as the resources to complete the due diligence and evaluation of such assets.

TransAlta, our sponsor, has indicated that the sale of certain of its contracted assets to us could form one source of their financing. Acquisitions from TransAlta will be subject to independent assessments and approval by the independent directors of the Board.

Other longer-term growth opportunities may also be sought, primarily through acquisitions of contracted new build projects, industry consolidation and other growth opportunities in new markets, other technologies or investment classes.

Business Environment

Demand and Supply

Our business is cyclical due to the nature of electricity, which is generally consumed as it is generated. Wind and run-of-river hydro resources fluctuate based on both seasonal patterns and naturally occurring weather variation. Typically, run-of-river hydro facilities generate most of their electricity and revenues during the spring and summer months when melting snow starts feeding watersheds and rivers. Wind generation is historically greater during the cold winter months and lower in the warm summer months.

Generally, market demand, supply conditions and changes in such conditions do not have a significant impact on our business operations due to our highly contracted position.

Contracted Cash Flows

Substantially all of our wind, hydro, solar and gas facilities have contracts in place for the sale of electricity they produce. Most of our wind and hydro facilities located in Alberta are contracted under long-term PPAs with TransAlta. The remaining wind and hydro facilities are contracted with government-owned corporations and large utility customers. The Sarnia gas facility is contracted to supply steam and electricity to commercial users in various industries, with the remaining generation sold into the Ontario market via the Independent Electricity System Operator. The Australian gas facilities are predominantly contracted to mining companies in Western Australia and Horizon Power, a state-owned utility.

In addition to contracting for power, we have entered into long-term and short-term contracts to sell the Green Attributes from our wind and hydro facilities. For 2018, approximately 54 per cent and 63 per cent of the Green Attributes from our wind and hydro facilities, respectively, were sold. The remaining Green Attributes are expected to be sold in the first half of 2019.

Regulatory and Environmental Legislation

Generation of electricity from wind and run-of-river hydro sources results in low environmental impacts when compared to other fuel types. Wind power facilities do not produce any emissions. They can be erected with minimal disturbance to the environment and utilize a known, predictable and recurring resource. Run-of-river hydro generation produces virtually no emissions and returns the original fuel source, water, into the river. Run-of-river facilities provide a smaller hydro generation option with a smaller footprint than traditional reservoir technology and operate with the seasonality of water flow within a given area. Run-of-river facilities also have a minimal impact on surrounding vegetation, fish, bird and wildlife habitats.

Although our operations generally have low environmental impacts, our activities are subject to stringent environmental laws and regulations promulgated and administered by the federal, provincial, state and municipal governments where we operate. These laws and regulations generally concern use of water, wildlife protection, wetlands preservation, remediation of contamination, waste disposal requirements, preservation of archaeological artifacts, endangered species preservation, and air emissions and noise limitations, among others. Our operations must be in compliance with the applicable

environmental laws and regulations and we must also obtain or comply with any necessary environmental permits issued pursuant to such laws and regulations.

Gas-fired generation has substantially lower greenhouse gas ("GHG") and other air pollutant emissions when compared to diesel or coal-fired generation. It is increasingly attractive to jurisdictions that are reducing the use of coal to meet emission reduction objectives. The operational flexibility allowed by gas generation enables it to back up intermittent renewable generation, and its high capacity factor provides value to industrial and mining customers in need of high reliability. Cogeneration is a form of gas generation used at the Sarnia facility in which a portion of the steam generated by the combined-cycle operation is used in industrial applications, giving rise to further efficiency and value to customers.

Canada

On June 21, 2018, the *Greenhouse Gas Pollution Pricing Act* ("GGPPA") was passed. Under this Act, the Canadian federal government implemented a national price on GHG emissions. The price will begin at $20 per tonne of carbon dioxide equivalent (CO_2e) for emissions in 2019, rising by $10 per year, until reaching $50 per tonne in 2022.

On Jan. 1, 2019, the GGPPA's "backstop" mechanisms came into effect for large emitters in jurisdictions that did not have an independent carbon pricing program or where the existing program was not deemed equivalent to the federal system - Ontario, Manitoba, New Brunswick, Saskatchewan, Prince Edward Island, Yukon and Nunavut. The backstop mechanism has two components: a carbon levy for small emitters and a regulation for large emitters called the Output-Based Pricing System ("OBPS").

The carbon levy sets a carbon price per tonne of GHG emissions related to transportation fuels, heating fuels and other small emission sources.

The OBPS is an intensity-based standard where large emitters must meet an industry-specific emission intensity performance standard per unit of production. A large emitter's emission intensity per unit of product must meet their industry's OBPS intensity performance standard. If the facility's emission intensity is below or above the performance standard, the facility will generate carbon credits or carbon obligations equal to the difference between the industry's emission intensity performance standard and the regulated facility's emission intensity.

Alberta

On Nov. 22, 2015, the government of Alberta announced the Alberta Climate Leadership Plan. The government has now largely delivered on its commitments through legislation to require:

- The elimination of coal generation by 2030;
- The creation of Renewable Energy Program ("REP") to meet the commitment that renewables account for 30 per cent of Alberta's electricity system by 2030. Under the REP, the system operator, the Alberta Electricity System Operator ("AESO"), is tasked with running procurement processes for government-approved volumes of renewable power. To date, the AESO has run three separate Requests for Proposals ("RFP"). The RFPs have resulted in 20-year contracts for approximately 1,360 MWs of wind power projects. These projects are scheduled to be grid integrated between 2019 and 2021;
- The introduction of the *Carbon Competitiveness Incentives Regulation* ("CCIR") which replaces the previous large emitters regulation, the *Specified Gas Emitters Regulation* ("SGER"), moving from a facility-specific compliance standard to a product or sector performance compliance standard; and
- A carbon levy was introduced on most carbon emissions not covered by the CCIR.

On Jan. 1, 2018, the Alberta government transitioned from the SGER to the CCIR. Under the CCIR, the regulatory compliance moved from a facility-specific compliance standard to a product or sector performance compliance standard. Currently, the provincial government has announced that the carbon price will remain at $30 per tonne of carbon dioxide equivalents ("tCO_2e") going forward and will not increase to the federally mandate price increase of $40/tCO_2e$ in 2021 and $50/tCO_2e$ in 2022; however, increases may be implemented by the federal government under their program equivalency review. The electricity sector performance standard was set at 370 tCO_2e/GWh but will decline over time. All renewable assets that received crediting under the SGER will continue to receive credits under CCIR on a one-to-one basis. All other renewables that did not receive credits under the previous standards will now be able to opt into the CCIR and get carbon crediting up to the electricity sector performance standard in perpetuity. Once wind projects' crediting under SGER protocol ends, these projects will also be able to opt into the CCIR system and be credited up to the performance standard for the rest of their operational life.

Ontario

On Oct. 31, 2018, the Ontario government passed the *Cap and Trade Cancellation Act*. This Act removed all existing provincial carbon emission regulations and costs on large emitters.

The Canadian federal GGPPA requires provinces to have greenhouse gas regulations and prices in place that align with the federal GGPPA. On Oct. 23, the federal government announced that the federal program would be implemented in Ontario as of Jan. 1, 2019. Small emitters will face a carbon levy and large emitters, under covered industries, with annual GHG emissions greater than 50,000 tCO_2e, will be subject to the OBPS. Ontario is therefore now subject to the federal government's backstop carbon levy price for small emitters and the OBPS for large emitters.

On Nov. 29, 2018, the Ontario government unveiled a new climate change policy called Preserving and Protecting our Environment for Future Generations: A Made-In-Ontario Environment Plan. The plan aims to keep the province working toward meeting the emissions-reduction goal of achieving a 30 per cent reduction from 2005 levels by 2030. The plan commits to developing emission performance standards to achieve reductions from large emitters and references Saskatchewan's OBPS as an example. The government will be consulting and developing the program in 2019. The plan's specifics related to the electricity sector have not yet been defined and will be determined through the program development process.

Australia

The Minister for Energy has requested the Public Utilities Office to undertake a comprehensive work program to improve the operation of the Wholesale Electricity Market. Detailed design and consultation is expected in 2019. The reform program focuses on three pillars of work: improving access to Western Power's network; improving reserve capacity pricing signals; and improving access to, and operation of, the Pilbara electricity network. With respect to improving access to Western Power's network, the government intends to introduce a constrained network access model for Western Power's network to optimize use at the least cost to electricity consumers. To improve reserve capacity pricing arrangements in the Wholesale Electricity Market, the review will examine the suitability of implementing an auction to determine capacity pricing, as well as other appropriate alternative pricing arrangements. With an aim of improving access to, and operation of, the Pilbara electricity network, the Government of Western Australia intends to implement a fit-for-purpose light handed regulatory regime to facilitate fair and reasonable access by third parties to Horizon Power's network and to more efficiently operate the electricity system.

Liquidity and Capital Resources

Liquidity risk arises from our ability to meet general funding needs, engage in hedging activities and manage the assets, liabilities and capital structure of the Corporation. Liquidity risk is managed by maintaining sufficient liquid financial resources to fund obligations as they come due in the most cost-effective manner.

Our liquidity needs are met through a variety of sources, including cash generated from operations, capital markets and funding from our existing credit facility. Our primary uses of funds are operational expenses, capital expenditures, distributions to the non-controlling interest, interest and principal payments on debt and dividends.

Financial Position

The following table highlights significant changes in the Consolidated Statements of Financial Position from Dec. 31, 2017 to Dec. 31, 2018:

	Increase/ (decrease)	Primary factors explaining change
Cash and cash equivalents	53	Timing of receipts and payments
Current portion of other assets	18	Funding of construction costs for the Big Level wind development project through a promissory note
Property, plant and equipment, net	(50)	Depreciation expense, partially offset by additions and acquisitions
Intangible assets	21	Increase due to the acquisition of Kent Breeze, partially offset by amortization
Investments in subsidiaries of TransAlta	58	Increase due to acquisition of tracking preferred shares in Big Level, Lakeswind and Mass Solar and increase in net change of fair value recognized in other comprehensive income on the TEA tracking preferred shares, partially offset by the redemption of MRPS and the return of capital on the TEA tracking preferred shares
Other assets	7	Increase in loan receivable and long-term portion of prepaid management fee
Deferred income tax assets	8	Tax effect of share issuance costs and acquisitions during the period
Accounts payable and accrued liabilities	6	Timing of payments and accruals
Long-term debt (including current portion)	(111)	Decrease due to repayments of the Canadian Assets working capital loan, the TEA loan and scheduled principal repayments of long-term debt, partially offset by increased borrowings on the credit facility
Deferred income tax liabilities	26	Decrease in tax loss carryforwards
Equity attributable to shareholders	194	Increase due to common shares issued, net earnings in the period and changes in the fair value of investments, partially offset by dividends declared

Cash Flows

The following table highlights significant changes in the Consolidated Statements of Cash Flows for the year ended Dec. 31, 2018, compared to the same period in 2017:

Year ended Dec. 31	2018	2017	Change	Primary factors explaining change
Cash and cash equivalents, beginning of year	**20**	15	5	
Provided by (used in):				
Operating activities	**385**	290	95	Higher cash earnings of $83 million and favourable changes in working capital of $12 million
Investing activities	**(137)**	(65)	(72)	Lower proceeds on redemption of investments in subsidiaries of $110 million, lower return of capital on investment in subsidiaries of TransAlta of $26 million, lower realized gain on financial instruments of $12 million, higher additions of property, plant and equipment of $25 million, and higher acquisitions of $39 million, offset by lower investments in subsidiaries of TransAlta of $93 million, decrease in loan receivable of $16 million and lower restricted cash of $30 million
Financing activities	**(195)**	(220)	25	Higher net proceeds on issuance of common shares of $144 million, lower long-term debt repayments of $143 million and an increase in borrowings under the credit facility of $124 million, partially offset by the higher repayment of the Canadian Assets working capital loan and TEA loan of $186 million, and lower proceeds from the TEA loan of $194 million
Cash and cash equivalents, end of year	**73**	20	53	

Debt

Debt, including amounts owing to TransAlta, totalled $932 million as at Dec. 31, 2018, compared to $1,043 million as at Dec. 31, 2017. The decrease in debt is mainly due to repayments of the TEA loan, the Canadian Assets working capital loan and scheduled repayments of non-recourse bonds, partially offset by increased borrowings under the credit facility.

As at Dec. 31, 2018, we had a $500 million syndicated credit facility available to us for general corporate purposes, including financing ongoing working capital requirements, construction capital requirements, growth opportunities and the repayment of outstanding borrowings. As at Dec. 31, 2018, $165 million was drawn and outstanding on the credit facility (2017 - $27 million). We also have an uncommitted $100 million demand letter of credit facility, under which $77 million of letters of credit have been issued as at Dec. 31, 2018 (2017 - $69 million).

We are subject to customary positive and negative covenants related to debt. We are not in violation of any of these covenants.

The Melancthon Wolfe Wind, Pingston, New Richmond and Kent Hills Wind bonds are subject to customary financing conditions and covenants that restrict the Corporation's ability to access funds generated by the facilities' operations. Upon meeting certain distribution tests, typically performed once per quarter, the funds can be distributed by the subsidiary entities to their respective parent entity. These restrictions include the ability to meet a debt service coverage ratio prior to distribution. Funds in these entities that have accumulated since the fourth quarter test will remain there until the next debt service coverage ratio can be calculated in the first quarter of 2019. As at Dec. 31, 2018, $23 million of cash was subject to these financial restrictions.

Additionally, the Melancthon Wolfe Wind, Pingston, New Richmond and Kent Hills Wind bonds require that certain reserve accounts be established and funded through cash held on deposit and/or by providing letters of credit. The Corporation has elected to use letters of credit as at Dec. 31, 2018. Accordingly, no cash was subject to these restrictions.

The Corporation has $31 million (2017 - $30 million) of cash received from the Kent Hills Wind bond financing that is held in a construction reserve account. The restricted cash will be released from the construction reserve account upon satisfaction of certain conditions, which is expected to occur in the first quarter of 2019.

Share Capital

On Dec. 31, 2018, we had approximately 263 million (2017 - 250 million) common shares issued and outstanding. On June 22, 2018, the Corporation issued approximately 12 million common shares at a price of $12.65 per share for gross proceeds of approximately $150 million. During 2018, we issued approximately 1.0 million common shares under the DRIP.

Capital Structure

Our capital structure consists of the following components as shown below:

As at Dec. 31	2018		2017	
	Amount	**%**	Amount	%
Debt, net of available cash and cash equivalents[1]	**859**	**27**	1,023	32
Non-controlling interest	**41**	**1**	36	1
Equity attributable to shareholders	**2,355**	**72**	2,161	67
Total capital	**3,255**	**100**	3,220	100

(1) The Corporation includes available cash and cash equivalents as a reduction of capital, as capital is managed internally and evaluated by management using a net debt position.

In 2018, the Corporation's capital structure included a lower percentage of long-term debt than it did in 2017. The decrease in debt is mainly due to repayments of the TEA loan, the Canadian Assets working capital loan and scheduled repayments of non-recourse bonds, partially offset by increased borrowings under the credit facility. The increase in equity is due to retained earnings and completion of our public share offering, offset by payment of dividends.

Commitments

Payments required under the Corporation's contractual obligations are as follows:

	Long-term service agreements[1]	General administrative services[2]	Long-term debt	Interest on long-term debt	Other[3]	Operating leases	Total
2019	25	19	49	37	8	1	139
2020	41	19	51	35	3	1	150
2021	31	20	52	32	2	1	138
2022	15	20	219	31	2	1	288
2023	6	20	101	21	2	1	151
2024 and thereafter	33	215	468	87	43	27	873
Total	**151**	**313**	**940**	**243**	**60**	**32**	**1,739**

(1) Long-term service agreements for wind and gas facilities.
(2) Excludes portion charged directly to Wyoming Wind.
(3) Includes land access, other leases, purchase contracts and natural gas purchase and transportation.

Contingencies

In the normal course of business, the Corporation may become party to litigation, proceedings or regulatory investigations. While the Corporation is not directly involved in the ongoing dispute with FMG over the purported termination of the South Hedland PPA, the results of the litigation could impact the finance income received as a result of the economic interest in the Australian Assets. The Corporation, and TransAlta, as direct owner of the South Hedland Power Station, are precluded under IFRS accounting principles from recognizing the financial impacts of any contingent assets or gains prior to any such realization becoming virtually certain. TransAlta constructed the South Hedland Power Station for approximately $570 million and the facility was expected to generate approximately $80 million in EBITDA on an annual basis. The Corporation's investment in the Australian Assets is through an economic interest that provides after-tax finance and interest income based on EBITDA of the underlying facilities. TransAlta will recognize any financial impacts from the litigation only when it is concluded. The Corporation recognizes finance and interest income when declared on our investments in the Australian Assets, inclusive of the impacts of any contingent gains when recognized by TransAlta.

Other Consolidated Results

Interest Expense

The components of net interest expense are shown below:

Year ended Dec. 31	2018	2017[2]
Interest on long-term debt	**36**	38
Interest on convertible debenture	**—**	9
Interest on TEA loan	**4**	—
Loss on redemption of unsecured debentures	**—**	6
Other interest[1]	**8**	4
Accretion of provisions	**3**	2
Interest expense	**51**	59

(1) Consists of letters of credit and guarantees, credit facility commitments, other interest and banking fees. For the year ended Dec. 31, 2018, interest on letters of credit and guarantees pledged by TransAlta was $1 million (2017 - $2 million).
(2) See Note 3(A) in the annual Consolidated Financial Statements for information on prior period restatement.

For the year ended Dec. 31, 2018, net interest expense decreased compared to 2017. In 2017, there was interest expense on the convertible debenture and a loss on redemption of unsecured debentures. This was partially offset by interest expense on the TEA loan in 2018.

Income Taxes

Our income tax rates and tax expense are based on the earnings generated in each jurisdiction in which we operate and any permanent differences between how pre-tax income is calculated for accounting and tax purposes. If there is a timing difference between when an expense or revenue item is recognized for accounting and tax purposes, these differences result in deferred income tax assets or liabilities and are measured using the income tax rate expected to be in effect when these temporary differences reverse. The impact of any changes in income tax rates on deferred income tax assets or liabilities is recognized in earnings in the period the new rates are enacted.

Despite higher earnings before income taxes in 2018, income tax expense was lower than 2017 by $3 million. Finance and interest income from investments in subsidiaries of TransAlta and the impairment of the TEA investment in 2017 are not subject to tax.

Non-Controlling Interest

Natural Forces Technologies, Inc. owns a 17 per cent interest in Kent Hills Wind LP, which owns the Kent Hills 1, 2 and 3 wind facilities, which collectively have 167 MW of gross generating capacity.

Since we have a controlling interest in Kent Hills Wind LP, 100 per cent of the earnings, assets and liabilities are consolidated into our financial statements. The non-controlling interest on the Consolidated Statements of Earnings and Consolidated Statements of Financial Position relate to the earnings and net assets attributable to the portion of Kent Hills that we do not own. On the Consolidated Statements of Cash Flows, cash paid to the minority owners of Kent Hills is shown in the financing activities section as distributions to non-controlling interest.

Net earnings attributable to the non-controlling interest of $5 million for the year ended Dec. 31, 2018, increased $1 million compared to 2017, primarily due to an increase in production and the Kent Hills expansion achieving commercial operations in mid-October.

Other Comprehensive Income ("OCI")

During the year ended Dec. 31, 2018, we recognized a $40 million increase in fair value in OCI (2017 - $37 million decrease). The changes in the fair values of financial assets at fair value through other comprehensive income ("FVTOCI") during 2018 are primarily attributable to the increase in value of the Australian Tracking Preferred Shares and due to the acquisition of additional US Wind and Solar investments. See Note 9 of our annual Consolidated Financial Statements for additional information.

Sustaining Capital Expenditures

Sustaining capital expenditures for assets we directly own, as well as the facilities in which we own economic interests, are noted below:

Year ended Dec. 31

	Canadian Wind	Canadian Hydro	US Wind and Solar	Canadian Gas	Australian Gas	Total
2018 Total sustaining expenditures	**10**	**4**	**2**	**20**	**2**	**38**
2017 Total sustaining expenditures	9	2	2	16	10	39

Sustaining capital expenditures decreased $1 million from 2017. Sustaining capital for the year ended Dec. 31, 2018, was mainly attributed to refurbishments and generator replacements in the wind fleet and planned major maintenance at our Canadian Gas facility. Sustaining capital expenditures for Australian Gas were lower in 2018 as there were no planned major maintenance items.

We also incurred $4 million in 2018 on productivity capital primarily on the Wolfe Island turbine power curve upgrade and the Sarnia control room upgrade.

2019 Outlook

The following table outlines our expectation on key financial targets for 2019:

Measure	Target
Comparable EBITDA	$425 million to $455 million
Adjusted funds from operations	$320 million to $350 million
Cash available for distribution	$270 million to $300 million

Operations

Production

In 2019 , we expect renewable energy production from our wind and hydro assets, including those owned through economic interests, to be in the range of 3,700 to 4,200 GWh. Our gas-fired generation primarily receives compensation for capacity, and accordingly, production is not a significant performance indicator of that business.

Contracted Cash Flows

Through the use of PPAs, including the TransAlta PPAs, our facilities and those in which we have an economic interest have a weighted average remaining contractual life of approximately 11 years.

Operating Costs

We have established long-term service agreements with suppliers to stabilize operations and maintenance costs. Most of our generation from gas is sold under contracts with pass-through provisions for fuel. For gas generation with no pass-through provision, we purchase natural gas coincident with production, thereby minimizing our exposure to changes in price.

Exposure to Fluctuations in Foreign Currencies

We are exposed to fluctuations in the exchange rate between the Canadian and the Australian and US dollars as a result of our economic interest in the US Wind and Solar Assets and the Australian Assets. The securities acquired from TransAlta and the related dividends received are denominated in Canadian, Australian and US dollars. TransAlta has agreed to provide the Corporation with protection against fluctuations in the exchange rates until June 30, 2020, on the first five years of cash flows from the Australian Assets. Any changes in foreign investments or foreign-denominated debt may change our exposure. All of our other assets are located in Canada. We may acquire equipment from foreign suppliers in various foreign currencies for future capital projects, which could create exposure to fluctuations in the value of the Canadian dollar related to these currencies.

Our strategy is to mitigate foreign exchange risk on foreign-denominated cash flows to ensure our ability to meet dividend requirements. Cash flows relating to the Australian Assets are predominately hedged under agreements with TransAlta.

Net Interest Expense

Net interest for 2019 is expected to be lower than 2018, due to a lower volume of debt. Our syndicated credit agreement gives us access to $500 million in direct borrowings at a variable interest rate. As a result, we have some exposure to interest rate risk, and changes in interest rates can affect the amount of net interest expense incurred.

Net Debt, Liquidity and Capital Resources

If there are low wind volumes, low hydro resources or unexpected maintenance costs, we may need additional liquidity in the future. We expect to maintain adequate available liquidity under our credit facility.

Income Taxes

The Corporation's statutory blended tax rate is expected to remain at 26 per cent. The effective income tax rate can change depending on the mix of earnings from various countries and certain deductions that do not fluctuate with earnings.

The Corporation's anticipated cash tax horizon is subject to risks, uncertainties and other factors that could cause the cash tax horizon to occur sooner than our current projection of approximately two years on owned assets. In particular, our anticipated cash tax horizon is subject to risk pertaining to a change in our operations, asset base, corporate structure or changes to tax legislation, regulations or interpretations. In the event we become cash taxable sooner than projected, our cash available for distribution and our dividend could decrease.

Environmental Legislation

We anticipate an increase in revenue from carbon offset credits generated in Alberta for 2019. Total revenues from Green Attributes, which include carbon offset credits, amounted to $11 million in 2018.

As part of its Climate Leadership Plan, the Government of Alberta has established a new system of obligations and allowances, benchmarked against highly efficient gas generation. The initial compliance price has been set at $30 per tonne of carbon dioxide emissions.

Capital Expenditures

Sustaining Capital

Our sustaining capital is comprised of the ongoing capital costs associated with maintaining the existing generating capacity of our facilities. The facilities of TransAlta in which we own economic interests also incur sustaining capital expenditures. While we are not required to fund these expenditures, they reduce the finance income from these investments.

For 2019, our estimate for total sustaining capital expenditures for owned assets and those in which we own an economic interest ranges from $30 million to $40 million. We also expect to spend approximately $4 million on productivity capital.

US Wind Projects

In April 2018, we entered into a contribution agreement with several subsidiaries of TransAlta related to our funding of the construction and other capital costs of the Big Level and Antrim wind development projects. We expect to invest a total of US$240 million in these projects. To date we have funded approximately US$81 million. See the Significant and Subsequent Events section of this MD&A for further details.

Financing

Financing for these capital expenditures is expected to be provided by cash flow from operating activities, capital markets transactions and our credit facility.

Risk Management

Our business activities expose us to a variety of risks including, but not limited to, increased regulatory changes, rapidly changing market dynamics and volatility in commodity markets. Our goal is to manage these risks so that we are reasonably protected from an unacceptable level of earnings, cash available for distribution or financial exposure while still enabling business development. We use a multilevel risk management oversight structure to manage the risks arising from our business activities, the markets in which we operate, and the political environments and structures with which we interface.

The responsibilities of various stakeholders in our risk management oversight structure are described below:

The Board is responsible for the stewardship of the Corporation. Subject to the provisions of the *Canada Business Corporations Act*, the Board may delegate certain of its powers and authority that the Board, or independent members of the Board, as applicable, deem necessary or desirable to effect the actual administration of the duties of the Board. Pursuant to the Management Agreement, the Board has delegated broad discretion to administer and manage the business and affairs of the Corporation to TransAlta. Nonetheless, the Board retains certain responsibilities that are described in the Board of Directors' Charter, a copy of which is available on our website and on SEDAR under the electronic profile of the Corporation. The Board includes three independent members.

The Audit and Nominating Committee's (the "Committee") primary role is to assist the Board in fulfilling its oversight responsibilities regarding our internal controls, financial reporting and risk management processes. The Committee is composed entirely of independent members of the Board.

The Committee is directly responsible for overseeing the work of the external auditor engaged for the purpose of preparing and issuing an auditor's report or performing other audit, review or attestation services, including the resolution of disagreements between the external auditor and management. The external auditor reports directly to the Committee. In addition, the Committee pre-approves all non-audit services undertaken by the external auditor.

The Committee is responsible for establishing and maintaining satisfactory procedures for the receipt, retention and treatment of complaints and for the confidential, anonymous submission of questionable accounting or auditing matters. The Committee is accountable to the Board and provides a report to the Board at each regularly scheduled Board meeting outlining the results of the Committee's activities and any reviews it has undertaken.

The Committee is also responsible for the identification and recommendation of individuals to the Board for nomination as members of the Board and its committees.

Risk Controls

Our risk controls have several key components:

Enterprise Tone

We strive to foster beliefs and actions that are true to, and respectful of, our many stakeholders. We do this by investing in communities where we live and work, operating and growing sustainably, putting safety first, and being responsible to the many groups and individuals with whom we work.

Policies

Under the Management Agreement, TransAlta provides all the general administrative and operational services as may be required or advisable for the management of the affairs of the Corporation and operation and maintenance of our facilities. TransAlta maintains a comprehensive set of enterprise-wide policies. These policies establish delegated authorities and limits for business transactions, as well as allow for an exception approval process. Periodic reviews and audits are performed to ensure TransAlta's compliance with these policies. All TransAlta employees are required to comply with a corporate code of conduct. Our directors and officers are also required to sign a code of conduct on an annual basis.

Risk Factors

Risk is an inherent factor of doing business. The following section addresses some, but not all, risk factors that could affect our future results and our activities in mitigating those risks. These risks do not occur in isolation, but must be considered in conjunction with each other. Further information on these risk factors can be found in our AIF.

For some risk factors we show the after-tax effect on net earnings of changes in certain key variables. The analysis is based on business conditions in 2018 and includes the indirect effects of risks on the facilities in which we have an economic interest. The actions that we describe as being part of our management of these risks include those carried by TransAlta as owner of those facilities. Each item in the sensitivity analysis assumes all other potential variables are held constant.

While these sensitivities are applicable to the period and the magnitude of changes on which they are based, they may not be applicable in other periods, under other economic circumstances or for a greater magnitude of changes. The changes in rates should also not be assumed to be proportionate to earnings in all instances.

Volume Risk

Volume risk relates to the variances from our expected production. The financial performance of our hydro, wind and solar operations is highly dependent upon the availability of their input resources in a given year. Shifts in weather or climate patterns, seasonal precipitation and the timing and rate of melting and runoff may impact the water flow to our facilities. The strength and consistency of the wind resource at our facilities impacts production. The operation of thermal plants can also be impacted by ambient temperatures and the availability of water and fuel. Where we are unable to produce sufficient quantities of output in relation to contractually specified volumes we may be required to pay penalties or purchase replacement power in the market.

The volume risk is managed by TransAlta by:

- actively managing our assets and their condition in order to be proactive in plant maintenance so that our plants are available to produce when required;
- placing our facilities in locations we believe to have adequate resources to generate electricity to meet the requirements of our contracts. However, we cannot guarantee that these resources will be available when we need them or in the quantities that we require; and
- diversifying our fuels and geography as one way of mitigating regional or fuel-specific events.

Generation Equipment and Technology Risk

There is a risk of equipment failure due to wear and tear, latent defect, design error or operator error, among other things, which could have a material adverse effect on the Corporation. Although our generation facilities have generally operated in accordance with expectations, there can be no assurance that they will continue to do so. Our plants are exposed to operational risks such as failures due to damage in generators and turbines, and other issues that can lead to outages and increased volume risk. If plants do not meet production targets specified in their PPA or other long-term contracts, we may be required to compensate the purchaser.

As well, we are exposed to procurement risk for specialized parts that may have long lead times. If we are unable to procure these parts when they are needed for maintenance activities, we could face an extended period where our equipment is unavailable to produce electricity.

This generation equipment and technology risk is managed by TransAlta by:

- operating our generating facilities within defined and proven operating standards that are designed to maximize the availability of our generating facilities for the longest period of time;
- performing preventive maintenance on a regular basis;
- having sufficient business interruption coverage in place in the event of an extended outage;
- having force majeure clauses in our PPAs and other long-term contracts;
- using proven technology in our generating facilities;
- monitoring technological advances and evaluating their impact upon our existing generating fleet and related maintenance programs; and
- developing a long-term asset management strategy to maximize the life cycles of our existing facilities and/or replacing of selected generating assets.

Environmental Compliance Risk

Our activities are subject to stringent environmental laws and regulations promulgated and administered by federal, provincial, state and municipal governments where we operate. These laws and regulations generally concern use of water, wildlife protection, wetlands preservation, remediation of contamination, waste disposal requirements, preservation of archaeological artifacts, endangered species preservation and noise limitations, among others.

Environmental compliance risks are risks to our business associated with existing and/or changes in environmental regulations. New emission reduction objectives for the power sector are being established by governments in Canada (including as set forth in the Alberta Climate Leadership Plan) and the US. We anticipate continued and growing scrutiny by investors relating to sustainability performance. These changes to regulations may affect our earnings by reducing the operating life of generating facilities, imposing additional costs on the generation of electricity, such as emission caps or tax, requiring additional capital investments in emission capture technology, or requiring us to invest in offset credits. It is

anticipated that these compliance costs will increase due to increased political and public attention to environmental concerns.

This environmental compliance risk is managed by TransAlta by:

- seeking continuous improvement in numerous performance metrics such as emissions, safety, land and water impacts, and environmental incidents;
- having an International Organization for Standardization and Occupational Health and Safety Assessment Series-based environmental health and safety management system in place that is designed to continuously improve performance;
- committing significant experienced resources to work with regulators in Canada and the US to advocate that regulatory changes are well designed and cost effective;
- purchasing emission reduction offsets;
- investing in renewable energy projects, such as wind, solar and hydro generation; and
- incorporating change-in-law provisions in contracts that allow recovery of certain compliance costs from our customers.

We strive to be in compliance with all environmental regulations relating to operations and facilities. Compliance with both regulatory requirements and management system standards is regularly audited through our performance assurance policy and results are reported quarterly.

Credit Risk

Credit risk is the risk to our business associated with changes in the creditworthiness of entities with which we have commercial exposures. This risk results from the ability of a counterparty to either fulfil its financial or performance obligations to us or where we have made a payment in advance of the delivery of a product or service. The inability to collect cash due to us or to receive products or services may have an adverse impact upon our net earnings and cash flows. We are also exposed indirectly to the credit risks of TEA and other TransAlta subsidiaries through our economic interest investments.

This exposure to credit risk is managed by TransAlta by:

- establishing and adhering to policies that define credit limits based on the creditworthiness of counterparties, contract term limits and the credit concentration with any specific counterparty;
- requiring formal sign-off on contracts that include commercial, financial, legal and operational reviews;
- requiring security instruments, such as parental guarantees, letters of credit, cash collateral or third-party credit insurance if a counterparty goes over its limits. Such security instruments can be collected if a counterparty fails to fulfil its obligation; and
- reporting our exposure using a variety of methods that allow key decision-makers to assess credit exposure by counterparty. This reporting allows us to assess credit limits for counterparties and the mix of counterparties based on their credit ratings.

If established credit exposure limits are exceeded, we take steps to reduce this exposure, such as requesting collateral, if applicable, or by halting commercial activities with the affected counterparty. However, there can be no assurances that we will be successful in avoiding losses as a result of a contract counterparty not meeting its obligations.

Our credit risk management profile and practices have not changed materially from Dec. 31, 2017. We had no material counterparty losses in 2018. We continue to keep a close watch on changes and trends in the market and the impact these changes could have on our business activities and will take appropriate actions as required, although no assurance can be given that we will always be successful.

A summary of our direct and indirect credit exposures at Dec. 31, 2018 is provided below:

	Direct exposure		Indirect exposure[2]
Counterparty credit rating	Receivables[1]	MRPS	Trade accounts receivable
Investment grade	**123**	**—**	**33**
Non-investment grade	**15**	**—**	**22**
No external rating	**37**	**489**	**—**

1) Includes trade accounts receivable, distributions receivable from subsidiaries of TransAlta and a loan receivable.
(2) Includes accounts receivable of TEA. Receivables of other economic interest investments were approximately $4 million in total and are with investment-grade and other high-quality counterparties.

Currency Rate Risk

We are exposed to fluctuations in the exchange rate between the Canadian and the Australian and US dollars as a result of our investments in and loans from subsidiaries of TransAlta. Changes in the values of these currencies relative to the Canadian dollar may affect our earnings or the value of our foreign investments to the extent that these positions or cash flows are not hedged or the hedges are ineffective.

We manage currency rate risk by:

- entering into contractual arrangements with TransAlta to fix in Canadian dollars the Australian-denominated income from all sources arising from our investment in the Australian Assets. The exchange rates at which we will recognize income denominated in Australian dollars is fixed until June 30, 2020; and
- offsetting our US dollar cash flows primarily related to the US Wind and Solar assets with foreign exchange forward contracts. Going forward, we may enter into forward foreign exchange contracts, as considered necessary, to hedge other foreign-denominated cash flows.

As at Dec. 31, 2018, a four cent increase or decrease in the Australian dollar relative to the Canadian dollar would increase or decrease net earnings of the Corporation by $18 million, and result in an increase or decrease in other comprehensive income of $20 million.

The Wyoming Wind, Lakeswind and Mass Solar tracking preferred shares contain embedded US-denominated cash flows. A four cent increase or decrease in the US dollar relative to the Canadian dollar relative to this indirect exposure would increase or decrease net earnings of the Corporation by $4 million and would result in an increase or decrease in other comprehensive income of $8 million.

Liquidity Risk

Liquidity risk arises from our ability to meet general funding needs and manage the assets, liabilities and capital structure of the Corporation. Our liquidity needs are met through a variety of sources, including capital markets, cash generated from operations and funding from our credit facility. Our primary uses of funds are operational expenses, capital expenditures, interest and principal payments on debt, funding growth and dividends.

We manage liquidity risk by:

- maintaining sufficient liquid financial resources to fund obligations as they come due in the most cost-effective manner;
- preparing and revising longer-term financing plans to reflect changes in business plans and the market availability of capital; and
- maintaining a $500 million syndicated credit facility to support potential liquidity requirements.

Interest Rate Risk

Changes in interest rates can impact our borrowing costs, and changes in our cost of capital may also affect the feasibility of new growth initiatives.

We manage interest rate risk by establishing and adhering to policies that include:

- employing a combination of fixed and floating rate debt instruments; and
- monitoring the mixture of floating and fixed rate debt and adjusting where necessary to ensure a continued efficient mixture of these types of debt.

At Dec. 31, 2018, approximately 18 per cent (2017 – 21 per cent) of our total debt portfolio was subject to changes in interest rates.

Project Management Risk

On capital projects, we face risks associated with cost overruns, delays and performance.

These project risks are managed by TransAlta by:

- ensuring all projects are reviewed to see that established processes and policies are followed, risks have been properly identified and quantified, input assumptions are reasonable, and returns are realistically forecasted prior to senior management and Board approvals (including, where applicable, independent Board approval);
- using consistent and disciplined project management methodologies and processes;
- performing detailed analysis of project economics prior to construction or acquisition and by determining our asset contracting strategy to ensure the right mix of contracted and merchant capacity before starting construction;
- developing and following through with comprehensive plans that include critical paths identified, key delivery points, and backup plans;
- managing project closeouts so that any learnings from the project are incorporated into the next significant project;
- fixing the price and availability of the equipment, foreign currency rates, warranties and source agreements as much as is economically feasible before proceeding with the project; and
- entering into labour agreements to provide security around cost and productivity.

Human Resource Risk

Human resource risk relates to the potential impact upon our business as a result of changes in the workplace. Human resource risk can occur in several ways:

- potential disruption as a result of labour action at our generating facilities;
- reduced productivity due to turnover in positions;
- inability to complete critical work due to vacant positions;
- failure to maintain fair compensation with respect to market rate changes; and
- reduced competencies due to insufficient training, failure to transfer knowledge from existing employees, or insufficient expertise within current employees.

We do not have employees, but rather rely on the Management Agreement with TransAlta for the provision of all our management, administrative and operational services, including making available appropriate personnel. The Human Resources risk is managed by TransAlta by:

- monitoring industry compensation and aligning salaries with those benchmarks;
- using incentive pay to align employee goals with corporate goals;
- monitoring and managing target levels of employee turnover; and
- ensuring new employees have the appropriate training and qualifications to perform their jobs.

Regulatory and Political Risk

Regulatory and political risk is the risk to our business associated with potential changes to the existing regulatory structures and the political influence upon those structures. This risk can come from market regulation and re-regulation, increased oversight and control, structural or design changes in markets, or other unforeseen influences. Market rules are often dynamic and we are not able to predict whether there will be any material changes in the regulatory environment or the ultimate effect of changes in the regulatory environment on our business. This risk includes, among other things, uncertainties associated with the development of capacity markets for electricity in the provinces of Alberta and Ontario, uncertainties associated with the development of carbon pricing policies, the qualification of our renewable facilities in Alberta to the generation of tradeable GHG allowances as part of the transition from the SGER to new regulation to be formulated to give effect to the Alberta Climate Leadership Plan in 2020, as well as the influence of regulation on the value of allowances or credits generated.

We manage these risks systematically through TransAlta's legal and regulatory compliance programs, which are reviewed periodically to ensure their effectiveness. TransAlta works with governments, regulators, electricity system operators and other stakeholders to resolve issues as they arise. TransAlta actively monitors changes to market rules and market design and engages in industry and government agency led stakeholder engagement processes. Through these and other avenues, TransAlta engages in advocacy and policy discussions at a variety of levels. These stakeholder negotiations have allowed us to engage in proactive discussions with governments and regulatory agencies over the longer term.

International investments are subject to unique risks and uncertainties relating to the political, social and economic structures of the respective country and such country's regulatory regime. We mitigate this risk through the use of non-recourse financing and insurance.

Transmission Risk
Access to transmission lines and transmission capacity for existing and new generation are key to our ability to deliver energy produced at our power plants to our customers. The risks associated with the aging existing transmission infrastructure in the markets in which we operate continue to increase because new connections to the power system are consuming transmission capacity quicker than it is being added by new transmission developments.

Reputation Risk
Our reputation is one of our most valued assets. Reputation risk relates to the risk associated with our business because of changes in opinion from the general public, private stakeholders, governments and other entities.

We manage reputation risk by:

- striving as a neighbour and business partner in the regions where we operate to build viable relationships based on mutual understanding leading to workable solutions with our neighbours and other community stakeholders;
- clearly communicating our business objectives and priorities to a variety of stakeholders on a routine basis;
- maintaining positive relationships with various levels of government;
- pursuing sustainable development as a longer-term corporate strategy;
- ensuring that each business decision is made with integrity and in line with our corporate values,;
- communicating the impact and rationale of business decisions to stakeholders in a timely manner; and
- maintaining strong corporate values that support reputation risk management initiatives, including the annual code of conduct sign-off.

Corporate Structure Risk
TransAlta
TransAlta is the majority shareholder of the Corporation and is also responsible for the management and operation of the Corporation pursuant to the Management Agreement. In addition, TransAlta is able to nominate directors to the Board and we rely on TransAlta to identify acquisition and growth opportunities. As a result, TransAlta is able to exercise substantial influence over our operations, administration and growth. Any failure to effectively manage our operations or to implement our growth strategy could have a material adverse effect on our business, financial condition and results of operations. Our risk management procedures in respect of this corporate structure risk include incorporating Board members that are independent of TransAlta.

Other
We conduct a significant amount of business through subsidiaries and partnerships. Our ability to meet and service debt obligations is dependent upon the results of operations of our subsidiaries and the payment of funds by our subsidiaries in the form of distributions, loans, dividends or otherwise. In addition, our subsidiaries may be subject to statutory or contractual restrictions that limit their ability to distribute cash to us.

General Economic Conditions
Changes in general economic conditions impact product demand, revenue, operating costs, the timing and extent of capital expenditures, the net recoverable value of property, plant and equipment ("PP&E"), financing costs, credit and liquidity risk, and counterparty risk.

Investment in Subsidiaries of TransAlta
Following the investments in economic interests of the Australian Assets, Wyoming Wind, Lakeswind, Big Level and Mass Solar, all owned by TransAlta, some, but not all, additional risk factors that could affect our future results, and our activities in mitigating those risks, are outlined below:

Nature of interests
The Corporation indirectly retains an economic interest in, and has no legal rights, in respect of the Australian Assets, Wyoming Wind, Lakeswind, Big Level and Mass Solar. We own securities providing an economic interest based on the cash flows from the assets broadly equal to the underlying net distributable profits. This means that we are not be able to dispose of these assets or exercise other rights of ownership, nor do we have any ability to directly oversee or manage the ownership and operation of these assets. Consequently, the rights to us in relation to these assets may be of less value compared to direct ownership of these assets.

Dependence on financial performance
The value of our common shares depends, in part, on the financial performance and profitability derived from these assets. Any decline in the financial performance of these assets or adverse change in such other factors could have an adverse effect on us and the value and market price of our common shares. In addition, these assets are potentially subject to the liabilities attributed to TransAlta, even if those liabilities arise from lawsuits, contracts or indebtedness that do not relate or are otherwise attributed to the assets or the Corporation.

Insufficient funds to satisfy distributions
We are entitled to receive quarterly preferential cash dividend payments on the Australian Tracking Preferred Shares. This subsidiary's only source of income is the distributions it receives from a 43 per cent owned limited partnership with TransAlta. In turn, the assets the limited partnership owns are the Australian Assets. There can be no certainty that the Australian Assets will generate sufficient income, such that the distributions it pays will, in aggregate, be sufficient to satisfy the dividend payments in respect of the Australian Tracking Preferred Shares.

Effective Jan. 6, 2016, TransAlta and a subsidiary of TransAlta signed a funding support agreement under which, among other things, TransAlta agreed to subscribe for securities of the subsidiary that issued the Australian Tracking Preferred Shares upon receipt of a funding notice to ensure that the subsidiary of TransAlta has sufficient funds to satisfy the dividend payable on the Australian Tracking Preferred Shares.

Income Tax Risk
Our operations are complex and located in several jurisdictions. The computation of the provision for income taxes involves tax interpretations, regulations and legislation that are continually changing. Our tax filings are subject to audit by taxation authorities. Management believes that it has adequately provided for income taxes as required by IFRS, based on all information currently available.

The Corporation and the subsidiaries of TransAlta in which we hold economic interests are subject to changing laws, treaties and regulations in and between countries. Various tax proposals in the countries we operate in could result in changes to the basis on which deferred taxes are calculated or could result in changes to income or non-income tax expense. There has recently been an increased focus on issues related to the taxation of multinational corporations.

Effective Jan. 1, 2019, Australia enacted anti-hybrid rules that will impact the tax benefits of certain financing structures, including our MRPS. In January 2019, the Corporation replaced the MRPS financing structure with preferred shares that track an underlying debt financing structure in place at TransAlta.

A change in tax laws, treaties or regulations, or in the interpretation thereof, could result in a materially higher income or non-income tax expense that could have a material adverse impact to the Corporation.

The sensitivity of changes in income tax rates upon our net earnings is shown below

Factor	Increase or decrease (%)	Approximate impact on net earnings
Tax rate	1	**1**

The Corporation's statutory blended tax rate is expected to remain at 26 per cent. The effective income tax rate can change depending on the mix of earnings from various countries and certain deductions that do not fluctuate with earnings.

The Corporation's anticipated cash tax horizon is subject to risks, uncertainties and other factors that could cause the cash tax horizon to occur sooner than our current projection of approximately two years on owned assets. In particular, our anticipated cash tax horizon is subject to risk pertaining to a change in our operations, asset base, corporate structure or changes to tax legislation, regulations or interpretations. In the event we become cash taxable sooner than projected, our cash available for distribution and our dividend could decrease.

Legal Contingencies
We are occasionally named as a party in various claims and legal or regulatory proceedings that arise during the normal course of our business. We review each of these claims, including the nature of the claim, the amount in dispute or claimed, and the availability of insurance coverage. There can be no assurance that any particular claim will be resolved in our favour or that such claims may not have a material adverse effect on us.

Other Contingencies

We maintain a level of insurance coverage deemed appropriate by management. There were no significant changes to our insurance coverage during renewal of the insurance policies on Dec. 31, 2018. Our insurance coverage may not be available in the future on commercially reasonable terms. There can be no assurance that our insurance coverage will be fully adequate to compensate for potential losses incurred. In the event of a significant economic event, the insurers may not be capable of fully paying all claims.

Cybersecurity

We rely on our information technology systems to process, transmit and store electronic information and data used for the safe operation of our assets. In today's ever evolving cybersecurity threat landscape, any attacks or breaches of our network or information systems may cause disruptions to our business operations. Cyberattackers may use a range of techniques, from exploiting vulnerabilities within our user-base, to using sophisticated malicious code on a single or distributed basis to try to breach our network security controls. Attackers may also use a combination of techniques in their attempt to evade safeguards such as firewalls, intrusion prevention systems and antivirus software that exist on our network infrastructure systems. A successful cyberattack may allow for the unauthorized interception, destruction, use or dissemination of our information and may cause disruptions to our business operations.

We continuously take measures to secure our infrastructure against potential cyberattacks that may damage our infrastructure, systems and data. Our cybersecurity program aligns with industry best practices to ensure that a holistic approach to security is maintained. We have implemented security controls to help secure our data and business operations, including access control measures, intrusion detection and prevention systems, logging and monitoring of network activities, and implementing policies and procedures to ensure the secure operations of the business. We have also established security awareness programs to help educate our users on cybersecurity risks and their responsibilities in helping protect the business.

While we have systems, policies, hardware, practices, data backups and procedures designed to prevent or limit the effect of security breaches of our generation facilities and infrastructure, there can be no assurance that these measures will be sufficient and that such security breaches will not occur or, if they do occur, that they will be adequately addressed in a timely manner. We closely monitor both preventive and detective measures to manage these risks.

Growth Risk

Our growth strategy is to develop or acquire stable cash flows associated with high-quality contracted renewable and natural gas power generation facilities and other infrastructure assets, with the objective of achieving returns on invested capital. Our business plan includes growth through identifying suitable acquisition or contracted new build opportunities, pursuing such opportunities, consummating acquisitions or contracting development and construction, and effectively integrating such growth opportunities into our existing business. There can be no assurance that we will be able to identify attractive growth opportunities in the future (whether through our relationship with TransAlta or otherwise), that we will be able to complete growth opportunities that increase the amount of cash available for distribution, or that growth opportunities will be successfully integrated into our existing operations. The successful execution of the growth strategy requires careful timing and business judgment, as well as the resources to complete the due diligence and evaluation of such assets.

Financial Instruments

Our financial instruments are as follows:

As at	Dec. 31, 2018		Dec. 31, 2017	
	Fair value Level II	**Fair value Level III**	Fair value Level II	Fair value Level III
Preferred shares tracking adjusted TEA amounts	—	**637**	—	616
Preferred shares tracking earnings and distributions of Wyoming Wind[1]	—	**137**	—	—
Preferred shares tracking earnings and distributions of Big Level	—	**42**	—	—
Preferred shares tracking earnings and distributions of Mass Solar	—	**69**	—	—
Preferred shares tracking earnings and distributions of Lakeswind	—	**33**	—	—
Preferred shares of TEA	**88**	—	94	—
Net risk management liabilities	**(1)**	—	(3)	—

(1) Investment is measured at cost in 2017.

At Dec. 31, 2018, Level III (refer to Critical Accounting Policies and Estimates section of this MD&A for more information) financial instruments were comprised of financial assets with a carrying value of $918 million (2017 - $616 million). The increase is due to the change in fair value of the preferred shares tracking earnings and distributions of TEA and the addition of the preferred shares tracking earnings of Lakeswind wind farm, Mass Solar solar projects and the Big Level wind development project. Refer to the Critical Accounting Policies and Estimates section for additional information on these measurements.

The change in fair value of the preferred shares tracking adjusted TEA amounts during the year is primarily due to the transactions executed in late December through early January 2019, as discussed in the Significant and Subsequent Events section of this MD&A. Changes to TEA's capital spending plan and depreciation schedule and an increase in the forecast foreign exchange translation rate from Australian to Canadian dollars also contributed to the increase in the fair value.

Financial instruments give rise to credit risk, foreign currency risk, interest risk and liquidity risk. Refer to the Risk Management section of this document for a discussion thereof and our management strategies. We accept the market risk that arises from our investment in Australian Tracking Preferred Shares and preferred shares.

Financial instruments can be used to manage exposure to interest rates, commodity prices and currency fluctuations, as well as other market risks. TransAlta enters into derivative contracts with external counterparties on our behalf. Derivative financial instruments are accounted for using the fair value method of accounting. The initial recognition of fair value and subsequent changes in fair value can affect reported earnings in the period the change occurs if hedge accounting is not elected. Otherwise, the effective portion of the changes in fair value will generally not affect earnings until the financial instrument is settled.

The two types of derivative financial instruments that we primarily use are: (i) those that are used in relation to energy trading activities, commodity hedging activities and other contracting activities; and (ii) those used in the hedging of foreign-denominated revenues, debt, projects and expenditures.

Related-Party Transactions and Balances

Related-Party Transactions

Amounts recognized from transactions with TransAlta or subsidiaries of TransAlta, excluding those described in the Significant Events section of this MD&A, are as follows:

Year ended Dec. 31	2018	2017
Revenue from TransAlta PPAs *(I)*	**36**	38
Revenue from Green Attributes[1]	**1**	—
Finance income from investments in subsidiaries of TransAlta[2]	**129**	39
Interest income from investments in subsidiaries of TransAlta[2]	**42**	47
G&A Reimbursement Fee *(II)*[3]	**16**	17
Natural gas purchases*(III)*	**7**	9
Financial power swap sales – loss/(gain) *(III)*	**1**	4
Interest expense on convertible debenture	**—**	9
Interest expense on TEA loan	**4**	—
Asset optimization fee[4]	**2**	2
Realized foreign exchange gain on hedge of contribution agreement[5]	**—**	6
Interest expense on credit facility and letter of credit and guarantee fees	**1**	2

(1) The value of Green Attributes was determined by reference to market information for similar instruments, including historical transactions with third parties.
(2) See Note 3(A) in the annual Consolidated Financial Statements for information on prior period restatement.
(3) Includes portion charged directly to Wyoming Wind and, in 2017, the Kent Hills 3 development fee.
(4) A subsidiary of TransAlta provides asset management and optimization services for the Corporation's Sarnia cogeneration plant. The Sarnia cogeneration plant is charged a fixed fee of approximately $0.125 million per quarter, plus a variable fee of 1.6 per cent of its gross margin.
(5) Related to funding of South Hedland Power Station construction costs.

I. TransAlta PPAs

We have agreements with TransAlta for certain wind and hydro facilities, providing for the purchase by TransAlta, for a fixed price, of all of the power produced by such facilities. The price paid by TransAlta in 2018 for output under the TransAlta PPAs was approximately $32.14 per MWh for wind facilities and $48.22 per MWh for hydro facilities, which are adjusted annually for changes in the Consumer Price Index ("CPI"). TransAlta is only required to purchase power that is actually produced. Each TransAlta PPA has a term of 20 years or end-of-asset life, where end-of-asset life is less than 20 years.

II. Management Agreement

Under the Management Agreement, TransAlta provides all the general administrative services, including key management personnel services, as may be required or advisable for the management of the affairs of the Corporation. As reimbursement for the services provided, we pay TransAlta a fee (the "G&A Reimbursement Fee"), adjusted annually for changes in the CPI. The G&A Reimbursement Fee is increased or decreased by an amount equal to 5.0 per cent of the amount of any increase or decrease, respectively, to the Corporation's total EBITDA resulting from the addition or divestiture of assets by the Corporation. TransAlta also provides operational and maintenance services under the Management Agreement, which generally includes all services as may be necessary or requested for the operation and maintenance of our gas, wind and hydro facilities. TransAlta is reimbursed for all out-of-pocket and third-party fees and costs, including salaries, wages and benefits associated with managing and operating the facilities not captured by the G&A Reimbursement Fee. The Management Agreement has an initial 20-year term, which is automatically renewed for further successive terms of five years after the expiry of the initial term or any renewal term, unless terminated by either party.

In 2017, we paid TransAlta a development fee of $1 million upon signing the PPA with NB Power for the Kent Hills expansion. In 2018, we paid a further upfront fee of $2 million upon achieving commercial operations at the Kent Hills expansion, in lieu of the annual 5.0 per cent of incremental EBITDA that would otherwise be paid pursuant to the Management Agreement. In 2018, we also paid Transalta a development fee of $2 million in respect of the Big Level wind project.

III. Natural Gas Purchases, Sales and Power Swap Sales
Our subsidiary, TransAlta (SC) LP ("Sarnia"), and TransAlta Energy Marketing Corp. ("TEMC"), a Canadian subsidiary of TransAlta, are parties to a Gas Management Intercompany Agreement for the Sarnia facility to obtain its natural gas at the Dawn Hub from TEMC in consideration of TEMC being allowed to trade and profit from Sarnia's storage position. The terms of the Gas Management Intercompany Agreement are as follows:

- all gas burned at Sarnia is purchased by Sarnia from TEMC priced at the ICE NGX Union Dawn Day Ahead Index (previously NGX Union Dawn Daily Spot Price) published by the Canadian Gas Price Reporter ("CGPR") on the day the gas is burned;
- TEMC will purchase all customer make-up gas from Sarnia at the ICE NGX Union Dawn Day Ahead Index at the day of occurrence;
- all gas not consumed and used by Sarnia for hedging purposes is purchased by TEMC at the ICE NGX Union Dawn Day Ahead Index; and
- in exchange for the gas, Sarnia grants TEMC the unlimited right to inject, store and withdraw gas from the Sarnia storage asset for proprietary purposes.

Additionally, Sarnia remains responsible for all storage and transportation costs, which are based on the volumes of gas taken in-kind by Union Gas for each day at the ICE NGX Union Dawn Day Ahead Index of gas published by the CGPR.

IV. Governance and Co-operation Agreement
Pursuant to the Governance and Co-operation Agreement, TransAlta serves as the primary vehicle through which we will acquire and/or develop renewable power projects. The Governance and Co-operation Agreement provides, among other things, that we will rely on TransAlta to: (i) identify acquisition and/or development opportunities for us (the "Opportunities"); (ii) evaluate the Opportunities for their suitability; (iii) present Opportunities suitable for, and meeting the strategic goals and objectives of the Corporation to the Board for assessment and approval; and (iv) execute and complete any Opportunities approved by the Board. TransAlta and its affiliates are not required to allocate any minimum level of dedicated resources for the pursuit of renewable power generation opportunities nor shall TransAlta or its affiliates be required to offer any specific opportunities to us. Approval of any Opportunities involving a transfer of interests from TransAlta or its affiliates to us must be supported and approved by a majority of the independent directors of the Board.

In 2018, we acquired the Kent Breeze wind farm and economic interests in Big Level, Lakeswind and Mass Solar from TransAlta.

Related-Party Balances

Related-party balances include the following:

As at	**Dec. 31, 2018**	Dec. 31, 2017
Trade and other receivables	**41**	37
Accounts payable and accrued liabilities (including interest payable)	**11**	11
Dividends payable	**38**	37
Investments in subsidiaries of TransAlta	**1,495**	1,437
Big Level loan receivable	**23**	—
Canadian Assets working capital loan	**—**	6
Letters of credit issued by TransAlta on behalf of the Corporation *(I)*[1]	**1**	1
Guarantees provided by TransAlta on behalf of the Corporation *(II)*[1]	**106**	105
Long-term prepaid – management fee *(III)*	**2**	—
Indemnification guarantee provided by the Corporation to TransAlta *(IV)*[1]	**538**	921

(1) Not recognized as a financial liability on the Consolidated Statements of Financial Position.

All of these balances are with TransAlta or subsidiaries of TransAlta.

I. Letters of Credit
TransAlta has provided letters of credit on behalf of the Corporation. Any amounts owed by the Corporation for obligations under the contracts to which the letters of credit pertain are reflected in the Consolidated Statements of Financial Position. All letters of credit expire within one year and are expected to be renewed, as needed, in the normal course of business. No amounts have been exercised by third parties under these arrangements.

II. Guarantees
If the Corporation does not perform under the related agreements, the counterparty may present claim for payment from TransAlta.

III. Long-term Prepaid – Management Fee
In the fourth quarter of 2018, the Corporation paid a $2 million one-time upfront fee upon achieving commercial operation of Kent Hills 3, in lieu of the annual five per cent of incremental EBITDA that would otherwise be paid pursuant to the Management Agreement.

IV. Indemnification Guarantee
As part of the acquisition of the Australian Assets, we entered into a Guarantee and Indemnification Agreement in favour of TransAlta related to certain guarantees it has provided to third parties in respect of certain obligations of TEA (the "TEA Guarantees"). We have agreed to indemnify TransAlta from and against all claims, actions, proceedings, liabilities, losses, costs, expenses or damages against or incurred by it arising out of or in connection with the TEA Guarantees and to reimburse TransAlta in full for the amount of any payment made by it under and in accordance with the TEA Guarantees, relating to actions, omissions, events and circumstances that occur on or after May 7, 2015. As consideration for this indemnity that we have provided, TransAlta is required to pay us the Canadian dollar equivalent of the guarantor fees it receives from TEA in respect of any of the TEA Guarantees. $367 million of the decrease from 2017 was mainly due to the cancellation in 2018 of two significant guarantees due to the repurchase of the Solomon Power Station by the customer and the completion of the South Hedland Power Station.

Critical Accounting Policies and Estimates

The preparation of financial statements requires management to make judgments, estimates and assumptions that could affect the reported amounts of assets, liabilities, revenues, expenses and disclosures of contingent assets and liabilities during the period. These estimates are subject to uncertainty. Actual results could differ from those estimates due to factors such as fluctuations in interest rates, foreign exchange rates, inflation and commodity prices, and changes in economic conditions, legislation and regulations.

In the process of applying the Corporation's accounting policies, which are discussed in Note 2 of our annual Consolidated Financial Statements, management has to make judgments and estimates about matters that are highly uncertain at the time the estimate is made and that could significantly affect the amounts recognized in the Consolidated Financial Statements. Different estimates with respect to key variables used in the calculations, or changes to estimates, could potentially have a material impact on the Corporation's financial position or performance. The key judgments and sources of estimation uncertainty are described below:

Fair Value

The fair value of a financial instrument 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. Fair values can be determined by reference to prices for that instrument in active markets to which the Corporation has access. In the absence of an active market, the Corporation determines fair values based on valuation models or by reference to other similar products in active markets.

Fair values determined using valuation models require the use of assumptions. In determining those assumptions, the Corporation looks primarily to external readily observable market inputs. In limited circumstances, the Corporation uses inputs that are not based on observable market data.

Level Determinations and Classifications
The Level I, II and III classifications in the fair value hierarchy utilized by the Corporation are defined below. The fair value measurement of a financial instrument is included in only one of the three levels, the determination of which is based on the lowest level input that is significant to the derivation of the fair value.

a. Level I
Fair values are determined using inputs that are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Corporation has the ability to access at the measurement date.

b. Level II
Fair values are determined, directly or indirectly, using inputs that are observable for the asset or liability, either directly or indirectly.

Fair values within the Level II category are determined through the use of quoted prices in active markets, which in some cases are adjusted for factors specific to the asset or liability, such as basis, credit valuation and location differentials.

The Corporation's commodity risk management Level II financial instruments may include over-the-counter derivatives with values based on observable commodity futures curves and derivatives with inputs validated by broker quotes or other publicly available market data providers. Level II fair values are also determined using valuation techniques, such as option pricing models and regression or extrapolation formulas, where the inputs are readily observable, including commodity prices for similar assets or liabilities in active markets, and implied volatilities for options.

In determining Level II fair values of other risk management assets and liabilities and the preferred shares of TEA measured and carried at fair value, the Corporation uses observable inputs other than unadjusted quoted prices that are observable for the asset or liability, such as interest rate yield curves and currency rates. For certain financial instruments where insufficient trading volume or lack of recent trades exists, the Corporation relies on similar interest or currency rate inputs and other third-party information such as credit spreads. The fair value of the preferred shares of TEA is determined by calculating an implied price based on a current assessment of the yield to maturity.

c. Level III
Fair values are determined using inputs for the asset or liability that are not readily observable.

In estimating the fair value of the preferred shares tracking adjusted TEA amounts and the preferred shares tracking earnings and distributions of Wyoming Wind, Big Level, Lakeswind and Mass Solar, the Corporation uses a discounted cash flow method, and makes estimates and assumptions about sales prices, production, capital expenditures, asset retirement costs, and other related cash inflows and outflows over the life of the facilities, as well as the remaining life of the facilities. In developing these assumptions, management uses estimates of contracted and merchant prices, anticipated production levels, planned and unplanned outages, changes to regulations, and transmission capacity or constraints for the estimated remaining life of the facilities. Appropriate discount rates reflecting the risks specific to TEA, Wyoming Wind, Big Level, Lakeswind and Mass Solar are used in the valuations. Management also develops assumptions in respect of ongoing financing and tax positions of TEA, Wyoming Wind, Big Level, Lakeswind and Mass Solar. These estimates and assumptions are susceptible to change from period to period and actual results can, and often do, differ from the estimates, and can have either a positive or negative impact on the estimate of the fair value of the instrument, and may be material.

The table below summarizes quantitative data regarding the unobservable inputs used in valuing the TEA Tracking Preferred Shares:

Unobservable input	**Dec. 31, 2018**	Dec. 31, 2017
Discount rate	**6.7%**	6.7%
Quarterly cash flows (millions)	Average of $11	Average of $11

The following table summarizes the impact on the fair value measurement of a change in the unobservable inputs to reflect reasonably possible alternative assumptions:

Unobservable input	**Alternative assumption**	**Change in fair value as at Dec. 31, 2018**	Change in fair value as at Dec. 31, 2017
Basis point change in discount rates	**-10 basis points decrease**	**5**	5
	+10 basis points increase	**(5)**	(5)
Quarterly cash flows	**+1% increase**[(1)]	**6**	6
	- 1% decrease[(1)]	**(6)**	(6)

(1) Quarterly cash flows could vary by a higher rate than the assumed one percent factor.

The table below summarizes quantitative data regarding the unobservable inputs used in valuing the fair value of the preferred shares tracking earnings and distributions of Wyoming Wind, Big Level, Lakeswind and Mass Solar as at Dec. 31, 2018:

Unobservable input	Wyoming Wind	Big Level[1]	Lakeswind	Mass Solar
Discount rate	5.9%	8.0%	8.8%	6.5%
Quarterly cash flows (millions)	Average of $3	Average of $5	Average of $1	Average of $1

(1) Project under construction at Dec. 31, 2018.

The following table summarizes the impact on the fair value measurements of a change in the unobservable inputs to reflect reasonably possible alternative assumptions:

Unobservable input	Alternative assumption	Change in total fair values as at Dec. 31, 2018[1]
Basis point change in discount rates	-10 basis points decrease	2
	+10 basis points increase	(2)
Quarterly cash flows	+1% increase	3
	- 1% decrease	(3)

(1) The fair value changes presented relates to Wyoming Wind, Big Level, Mass Solar and Lakeswind in total.

Significant Influence through Tracking Preferred Shares

The Corporation has invested in preferred shares of subsidiaries of TransAlta that pay dividends based on tracking certain financial results of other subsidiaries of TransAlta. Under IFRS, a 20 per cent voting interest is presumed to provide the holder with significant influence over the investee. Significant influence is the power to participate in the financial and operating policy decisions of an investee.

The rights associated with the Corporation's investments in the preferred shares of a subsidiary of TransAlta tracking the financial results of certain US Wind and Solar assets (see Note 9) provide the Corporation individually with a 6.25 per cent (cumulatively 25 per cent) voting interest in that subsidiary. In the event that any dividends on these preferred shares have not been paid within six months of the date at which the payout formula would have them paid, and while such amounts remain unpaid, the Corporation will have the right to appoint individually 18.75 per cent (cumulatively 75 per cent) of the directors of that subsidiary.

The investment in the preferred shares of a subsidiary of TransAlta tracking the financial results of TEA does not provide the Corporation with any voting rights, unless and until the subsidiary fails to pay four quarterly dividends on the dates when due in accordance with the payout formula, whether or not consecutive, and whether or not such dividends have been declared. Thereafter, but only for so long as any such dividends remain in arrears, the Corporation is entitled to elect 30 per cent of the directors of the subsidiary. The investment agreement provides the Corporation with rights to financial information and further protections against adverse changes in the operation and financial structure of TEA through post-closing covenants.

The Corporation determined that it does not have significant influence over the TransAlta subsidiaries, in consideration of TransAlta's block ownership of the voting shares, and accordingly, the investments were determined to constitute financial assets.

Dividends as Income or Return of Capital

The Corporation receives dividends from its investments in the preferred shares tracking adjusted TEA amounts, TEA preferred shares, preferred shares tracking earnings, and distributions of Wyoming Wind, Lakeswind and Mass Solar. Determining whether a dividend represents in substance a return of capital requires significant judgment. The Corporation determines the amount of dividends that represents a return of capital based on the lower of: (i) the difference, if positive, between the cost base of the shares and their fair value, at the end of the reporting period; and (ii) the actual dividend declared on the shares during the reporting period. When it is determined that a dividend represents a return of capital, the carrying amount of the related investment is reduced.

Impairment of PP&E

Impairment exists when the carrying amount of an asset exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. An assessment is made at each reporting date as to whether there is any indication that an impairment loss may exist or that a previously recognized impairment loss may no longer exist or may have decreased. In determining fair value less costs of disposal, information about third-party transactions for similar assets is used and if none is available, other valuation techniques, such as discounted cash flows, are used. Value in use is computed using the present value of management's best estimates of future cash flows based on the current use and present condition of the asset. In estimating either fair value less costs of disposal or value in use using discounted cash flow methods, estimates and assumptions must be made about sales prices, production, asset retirement costs and other related cash inflows and outflows over the life of the facilities, which can range from 25 to 50 years. In developing these assumptions, management uses estimates of contracted prices, anticipated production levels, planned and unplanned outages, changes to regulations, and transmission capacity or constraints for the remaining life of the facilities. Appropriate discount rates reflecting the risks specific to the asset under review are used in the assessments. These estimates and assumptions are susceptible to change from period to period and actual results can, and often do, differ from the estimates, and can have either a positive or negative impact on the estimate of the impairment charge, and may be material. Substantially all of the Corporation's generating assets are contracted under the TransAlta PPAs or other PPAs with various third parties.

Income Taxes

Preparation of the Consolidated Financial Statements involves determining an estimate of, or provision for, income taxes in each of the jurisdictions in which the Corporation operates. The process also involves making an estimate of income taxes currently payable and income taxes expected to be payable or recoverable in future periods, referred to as deferred income taxes. Deferred income taxes result from the effects of temporary differences due to items that are treated differently for tax and accounting purposes. The tax effects of these differences are reflected in the Consolidated Statements of Financial Position as deferred income tax assets and liabilities. An assessment must also be made to determine the likelihood that the Corporation's future taxable income will be sufficient to permit the recovery of deferred income tax assets. To the extent that such recovery is not probable, deferred income tax assets must be reduced. Management must exercise judgment in its assessment of continually changing tax interpretations, regulations and legislation, to ensure deferred income tax assets and liabilities are complete and fairly presented. Differing assessments and applications than the Corporation's estimates could materially impact the amounts recognized for deferred income tax assets and liabilities.

Provisions for Decommissioning and Restoration Activities

We recognize decommissioning and restoration provisions for PP&E in the period in which they are incurred if there is a legal or constructive obligation to reclaim the plant or site. The amount recognized as a provision is the best estimate of the expenditures required to settle the provision. Expected values are probability weighted to deal with the risks and uncertainties inherent in the timing and amount of settlement of many decommissioning and restoration provisions. Expected values are discounted at the risk-free interest rate adjusted to reflect the market's evaluation of our credit standing.

At Dec. 31, 2018, the total provision recognized for decommissioning and restoration activities was $44 million (2017 - $44 million). We estimate the undiscounted amount of cash flow required to settle these provisions is approximately $193 million (2017 - $189 million), which will be incurred between 2029 and 2060. The majority of these costs will be incurred between 2030 and 2045. An increase of one per cent and 10 per cent for the discount rate and undiscounted cash flows, respectively, would each approximately result in a net earnings decrease of $1 million.

Useful Life of PP&E

Each significant component of an item of PP&E is depreciated over its estimated useful life. Estimated useful lives are determined based on current facts and past experience, and take into consideration the anticipated physical life of the asset, existing long-term sales agreements and contracts, current and forecasted demand, the potential for technological obsolescence, and regulations. The useful lives of PP&E are reviewed at least annually to ensure they continue to be appropriate.

Impairment of Investments

For investments in subsidiaries carried at fair value, the Corporation, after adoption of IFRS 9, is no longer required to assess at the end of each reporting period whether there is any indication that the investment may be impaired. If the fair value of the investment declines, the decrease is recorded as a reduction in equity through OCI.

Accounting Changes

Current Accounting Changes

I. IFRS 9 *Financial Instruments*

Effective Jan. 1, 2018, we adopted IFRS 9, which introduces new requirements for:

a. the classification and measurement of financial assets and liabilities;
b. the recognition and measurement of impairment of financial assets; and
c. general hedge accounting.

In accordance with the transition provisions of the standard, we have elected not to restate prior periods. The cumulative impact of adopting IFRS 9 was recognized at the initial date of application.

a. Classification and Measurement

Under the new classification and measurement requirements, financial assets must be classified and measured at either amortized cost, at fair value through profit or loss, or at fair value through OCI. The classification and measurement depends on the contractual cash flow characteristics of the financial asset and the entity's business model for managing the financial asset. The classification requirements for financial liabilities are largely unchanged.

We hold preferred shares of subsidiaries of TransAlta related to TEA and also hold preferred shares directly in the capital of TEA, which under IFRS 9 are required to be measured at fair value through profit or loss ("FVTPL"). We have irrevocably elected to measure these investments at fair value through other comprehensive income. Under IFRS 9, gains or losses recognized in OCI for investments in equity instruments designated at fair value through OCI are not subsequently reclassified to net earnings. This change led to an opening balance sheet adjustment, reclassifying $137 million from deficit to accumulated OCI, arising from the 2017 impairments on the preferred shares tracking adjusted TEA amounts. In addition to this, the opening balance sheet was adjusted by reducing deficit by $3 million to measure the preferred shares in subsidiaries of TransAlta related to TransAlta Wyoming Wind LLC at fair value through profit loss instead of cost, which was the best representation of fair value under IAS 39.

b. Impairment of Financial Assets

IFRS 9 introduces a new impairment model for financial assets. The expected credit loss model requires that the loss allowance for a financial asset be measured at an amount equal to the lifetime expected credit loss if its credit risk has increased significantly.

Management reviewed and assessed our existing financial assets for impairment using reasonable and supportable information in accordance with the expected credit loss model required by IFRS 9 to determine the credit risk of the respective items at the date they were initially recognized, and compared that to the credit risk as at Jan. 1, 2018. There were no significant increases in credit risk determined upon application of IFRS 9.

c. General Hedge Accounting

We applied the IFRS 9 hedge accounting requirements prospectively on Jan. 1, 2018. The hedging relationships designated by the Corporation under IAS 39 are identical to those that qualify as hedging relationships under IFRS 9.

d. IAS 1 *Presentation of Financial Statements*

IFRS 9 amended IAS 1 to require that interest income be presented as a separate line item on the Statements of Net Earnings. We have applied this requirement on Jan. 1, 2018 and have revised the comparative period accordingly.

II. IFRS 15 *Revenue from Contracts with Customers*

The Corporation has adopted IFRS 15 *Revenue from Contracts with Customers* (IFRS 15) with an initial adoption date of Jan. 1, 2018. As a result, the Corporation has changed its accounting policy for revenue recognition. The Corporation has elected to adopt IFRS 15 retrospectively with the modified retrospective method of transition practical expedient and has elected to apply IFRS 15 only to contracts that are not completed contracts at the date of initial application. The cumulative effect of initially applying IFRS 15 was nil. Comparative information has not been restated and is reported under IAS 18 *Revenue.*

Under IFRS 15, the Corporation evaluates whether the contracts it enters into meet the definition of a contract with a customer at the inception of the contract and on an ongoing basis if there is an indication of significant changes in facts and circumstances. Revenue is measured based on the transaction price specified in a contract with a customer. Revenue is recognized when control of the goods or services is transferred to the customer. For certain contracts, revenue may be recognized at the invoiced amount, as permitted using the invoice practical expedient, if such amount corresponds directly with the Corporation's performance to date. The Corporation excludes amounts collected on behalf of third parties from revenue.

Refer to Notes 2, 3 and 5 of the financial statements for additional information and disclosures related to IFRS 9 and 15.

Future Accounting Changes

IFRS 16 *Leases*

Accounting standards that have been previously issued by the IASB, but are not yet effective and have not been applied by the Corporation include IFRS 16 *Leases.* In January 2016, the IASB issued IFRS 16 *Leases*, which replaces the current IFRS guidance on leases. Under current guidance, lessees are required to determine if the lease is a finance or operating lease, based on specified criteria. Finance leases are recognized on the statement of financial position, while operating leases are not. Under IFRS 16, lessees must recognize a lease liability and a right-of-use asset for virtually all lease contracts. An optional exemption to not recognize certain short-term leases and leases of low value can be applied by lessees. In addition, the nature and timing of expenses related to leases will change, as IFRS 16 replaces the straight-line operating leases expense with the depreciation expense for the assets and interest expense on the lease liabilities. For lessors, the accounting remains essentially unchanged.

IFRS 16 is effective for annual periods beginning on or after Jan. 1, 2019. The standard is required to be adopted either retrospectively or using a modified retrospective approach. IFRS 16 will be applied by the Corporation on Jan. 1, 2019, using the modified retrospective approach. In applying IFRS 16 for the first time, the Corporation has used the following practical expedients permitted by the standard:

- exemption for short-term leases that have a remaining lease term of less than 12 months as at Jan. 1, 2019, and low value leases;
- excluding initial direct costs for the measurement of the right-of-use asset at the date of initial application;
- using hindsight in determining the lease term where the contract contains options to extend or terminate the lease; and
- measuring the right-of-use assets at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the statement of financial position immediately before the date of initial application.

The Corporation has substantially completed its assessment of existing operating leases. The Corporation estimates the quantitative impact of adopting IFRS 16 to be an increase of between $10 million to $14 million in total assets and total liabilities for the right-of-use assets and the lease liabilities, respectively, as at Jan. 1, 2019.

Fourth Quarter Results

Consolidated Financial Highlights

Three months ended Dec. 31	2018	2017
Renewable energy production (GWh)(1)	**1,107**	1,123
Revenues	**140**	134
Net earnings attributable to common shareholders	**93**	33
Comparable EBITDA(2)	**133**	118
Adjusted funds from operations(2)	**108**	111
Cash flow from operating activities	**103**	30
Cash available for distribution(2)	**85**	88
Net earnings per share attributable to common shareholders, basic and diluted	**0.35**	0.13
Adjusted funds from operations per share(2)	**0.41**	0.44
Cash available for distribution per share(2)	**0.32**	0.35
Dividends declared per common share	**0.23**	0.31
Dividends paid per common share	**0.23**	0.23

(1) Includes production from US Wind and Solar and excludes Canadian and Australian gas-fired generation. Production is not a key revenue driver for gas-fired facilities as most of their revenues are capacity based.
(2) Refer to the Non-IFRS Measures section of this MD&A for further discussion of these items.

- Reported net earnings attributable to common shareholders increased by $60 million, primarily due to higher finance and interest income this year of $28 million from investments in subsidiaries of TransAlta. An impairment of $23 million on the Australian Tracking Preferred Shares negatively impacted 2017's results.
- Comparable EBITDA was higher in the fourth quarter of 2018, primarily due to the increase in comparable EBITDA of $11 million, $4 million and $5 million for Canadian Gas, Australian Gas, and US Wind and Solar, respectively, partially offset by a decrease of $6 million for Canadian Wind.
- Renewable energy production decreased 16 GWh, due to lower generation in Canadian Wind and Canadian Hydro, partially offset by higher generation from US Wind and Solar.

Reconciliation of Non-IFRS Measures

Presenting AFFO provides users with a proxy for the amount from operating activities and investments in subsidiaries of TransAlta in which we have an economic interest. CAFD provides users with a proxy for the cash that will be available to common shareholders of the Corporation. One of the primary objectives of the Corporation is to provide reliable and stable cash flows, and presenting AFFO and CAFD assists readers in assessing our cash flows in comparison to prior periods. See the Non-IFRS Measures section of this MD&A for additional information.

The table below reconciles our cash flow from operating activities to our AFFO and comparable CAFD:

Three months ended Dec. 31	2018	2017
Cash flow from operating activities	103	30
Change in non-cash operating working capital balances	20	62
Cash flow from operations before changes in working capital	123	92
Adjustments:		
Sustaining capital expenditures	(14)	(6)
Distributions paid to subsidiaries' non-controlling interest	(1)	1
Finance and interest income	(46)	(18)
AFFO – economic interests[1]	46	42
AFFO	108	111
Deduct:		
Principal repayments of amortizing debt	(23)	(23)
CAFD	85	88
Weighted average number of common shares outstanding in the period (millions)	263	250
AFFO per share	0.41	0.44
CAFD per share	0.32	0.35

(1) Refer to the reconciliation of the comparable EBITDA of the facilities in which we hold an economic interest to the reported finance income table in this MD&A.

Presenting comparable EBITDA provides management and investors with a proxy for the amount of cash generated from operating activities before net interest expense, non-controlling interest, income taxes and the impacts of timing on the finance income from subsidiaries of TransAlta in which we have an economic interest. We present comparable EBITDA along with operational information of the assets in which we own an economic interest so that readers can better understand and evaluate the drivers of those assets in which we have the economic interest.

The tables below reconcile our reported EBITDA to comparable EBITDA:

Three months ended Dec. 31, 2018	Reported	Adjustments	Economic interests	Comparable total
Revenues[1]	140	—	55	195
Fuel, royalties and other costs of sales[2]	26	—	2	28
Gross margin	114	—	53	167
Operations, maintenance and administration[3]	22	—	10	32
Taxes, other than income taxes	2	—	—	2
Change in fair value of financial assets	(5)	5	—	—
Finance income	(35)	35	—	—
Interest income	(11)	11	—	—
Foreign exchange gain	(13)	13	—	—
Earnings before interest, taxes, depreciation and amortization	154	(64)	43	133

(1) Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable amount.
(2) Commencing in the third quarter of 2017, amounts related to economic interests include interest earned on the prepayment of certain transmission costs.
(3) Amounts related to economic interests include the effect of contractually fixed management costs.

Three months ended Dec. 31, 2017	Reported	Adjustments	Economic interests	Comparable total
Revenues[1]	134	—	50	184
Fuel, royalties and other costs of sales[2]	25		5	30
Gross margin	109	—	45	154
Operations, maintenance and administration[3]	23	—	11	34
Taxes, other than income taxes	2	—	—	2
Finance income	(6)	6	—	—
Interest income	(12)	12	—	—
Foreign exchange gain	(12)	12	—	—
Impairment of investment	23	(23)	—	—
Earnings before interest, taxes, depreciation and amortization	91	(7)	34	118

(1) Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable amount.
(2) Commencing in the third quarter of 2017, amounts related to economic interests include interest earned on the prepayment of certain transmission costs.
(3) Amounts related to economic interests include the effect of contractually fixed management costs.

The table below reconciles our finance and interest income to comparable EBITDA of the facilities in which we hold an economic interest:

Three months ended Dec. 31	**2018**			2017		
	US Wind and Solar[1]	**Australian Gas**	**Total**	US Wind	Australian Gas	Total
Comparable EBITDA	**10**	**33**	**43**	5	29	34
Sustaining capital	**(1)**	**(2)**	**(3)**	—	(2)	(2)
Change in long-term receivable	**—**	**5**	**5**	—	6	6
Current income tax expense	**—**	**(2)**	**(2)**	—	—	—
Interest income	**—**	**3**	**3**	—	—	—
Tax equity distributions	**(1)**	**—**	**(1)**	—	—	—
Currency adjustment, reserves and other	**—**	**1**	**1**	—	4	4
AFFO	**8**	**38**	**46**	5	37	42
Return of capital	**(3)**	**—**	**(3)**	(3)	(14)	(17)
Effects of changes in working capital and other timing	**1**	**2**	**3**	(2)	(5)	(7)
Finance and interest income	**6**	**40**	**46**	—	18	18

Finance and interest income is presented in the statement of earnings as follows:

Year ended Dec. 31	**2018**			2017		
	US Wind and Solar[1]	**Australian Gas**	**Total**	US Wind	Australian Gas	Total
Finance income	**6**	**29**	**35**	—	6	6
Interest income	**—**	**11**	**11**	—	12	12
Total finance and interest income	**6**	**40**	**46**	—	18	18

(1) Includes Lakeswind wind farm and Mass Solar solar projects from May 31, 2018 (see the Significant and Subsequent Events section of this MD&A).

Reconciliation of Comparable EBITDA to AFFO

Three months ended Dec. 31	2018			2017		
	Owned assets	**Economic interests**	**Total**	Owned assets	Economic interests	Total
Comparable EBITDA	**90**	**43**	**133**	84	34	118
Interest expense	**(7)**	**—**	**(7)**	(12)	—	(12)
Change in long-term receivable	**—**	**5**	**5**	—	6	6
Sustaining capital expenditures	**(14)**	**(3)**	**(17)**	(6)	(2)	(8)
Current income tax expense	**(2)**	**(2)**	**(4)**	(1)	—	(1)
Tax equity distributions	**—**	**(1)**	**(1)**	—	—	—
Distributions paid to subsidiaries' non-controlling interest	**(1)**	**—**	**(1)**	1	—	1
Unrealized risk management loss	**1**	**—**	**1**	1	—	1
Realized foreign exchange loss	**—**	**—**	**—**	(1)	—	(1)
Provisions	**(2)**	**—**	**(2)**	—	—	—
Interest income	**—**	**3**	**3**	—	—	—
Currency adjustment, reserves and other	**(3)**	**1**	**(2)**	3	4	7
AFFO	**62**	**46**	**108**	69	42	111

Discussion of Comparable EBITDA and Operational Results

Presenting comparable EBITDA from period to period provides management and investors with a proxy for the amount of cash generated from operating activities before net interest expense, non-controlling interest, income taxes and the impacts of timing and sustaining capital expenditures on finance income from subsidiaries of TransAlta.

Three months ended Dec. 31	Long-term average renewable energy production (GWh)[1]	Production (GWh)		Comparable EBITDA	
		2018	2017	**2018**	2017
Canadian Wind	**948**	**927**	938	**67**	73
Canadian Hydro	**83**	**46**	58	**2**	2
US Wind	**153**	**134**	127	**10**	5
Total – Renewable energy	**1,184**	**1,107**	1,123	**79**	80
Canadian Gas		**247**	341	**26**	15
Australian Gas		**457**	457	**33**	29
Corporate		**—**	—	**(5)**	(6)
Total		**1,833**	1,921	**133**	118

(1) Long-term average is calculated on an annualized basis from the average annual energy yield predicted from our simulation model based on historical resource data performed over a period of typically 15 years for wind and 30 years for hydro.

- Canadian Wind: Comparable EBITDA decreased $6 million from the prior year mainly due to lower wind resource and higher contract costs on certain long-term service agreements.
- Canadian Hydro: Comparable EBITDA was consistent with 2017.
- US Wind: Higher Comparable EBITDA in 2018 of $5 million resulted from the acquisitions of Lakeswind wind farm and Mass Solar solar projects.
- Canadian Gas: Comparable EBITDA increased $11 million from 2017 mainly due to favourable market impacts and lower operations, maintenance and administration costs.
- Australian Gas: Higher comparable EBITDA of $4 million compared to the prior year largely due to higher EBITDA from the South Hedland Power Station, partially offset by lower finance lease income due to FMG completing its acquisition of the Solomon Power Station on Nov. 1, 2017.
- Corporate: Corporate costs are lower compared to last year due to the $1 million development fee paid in 2017 to TransAlta upon signing the PPA with NB Power for the Kent Hills expansion.

Selected Quarterly Information

	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Revenue	**125**	**107**	**90**	**140**
Net earnings (loss) attributable to common shareholders	**66**	**65**	**12**	**93**
Cash flow from operating activities	**132**	**72**	**78**	**103**
AFFO	**97**	**73**	**67**	**108**
CAFD	**96**	**51**	**65**	**85**
Net earnings (loss) per share attributable to common shareholders, basic and diluted	**0.26**	**0.26**	**0.05**	**0.35**
CAFD per share	**0.38**	**0.20**	**0.25**	**0.32**

	Q1 2017	Q2 2017	Q3 2017	Q4 2017
Revenue[1]	124	110	91	134
Net earnings attributable to common shareholders	27	22	(73)	33
Cash flow from operating activities	100	73	87	30
AFFO	83	64	70	111
CAFD	83	43	70	88
Net earnings per share attributable to common shareholders, basic and diluted	0.12	0.10	(0.30)	0.13
CAFD per share	0.37	0.19	0.29	0.35

(1) Q1, Q2 and Q3 2017 revised to reflect netting of intercompany gas sales with purchases. This adjustment had no effect on net earnings (loss) attributable to common shareholders or any other measures presented in this table.

Our business results fluctuate with seasonal variations, with the first and fourth quarters seeing the largest wind volumes and the second and third quarters recording higher hydro volumes. As wind forms a larger part of our renewable fleet, higher revenues and earnings are expected in the first and fourth quarters. In April 2018, we acquired economic interests in the Big Level wind development project and in May 2018 we acquired Kent Breeze directly and economic interests in Lakeswind wind farm and Mass Solar solar projects. Our earnings after these investments include various effects arising from financial instruments:

- Foreign exchange gains on Australian-dollar-denominated instruments in the first quarter of 2018 and the first and fourth quarters of 2017, with losses in the second, third and fourth quarters of 2018 and the second and third quarters of 2017.
- Foreign exchange gains on US-dollar-denominated instruments in the first, second and fourth quarters of 2018, with losses in the third quarter of 2018 and the first three quarters of 2017.
- In the third and fourth quarters of 2017, we recognized an impairment on the Australian Tracking Preferred Shares. Effective Jan. 1, 2018, with the adoption of IFRS 9, gains or losses recognized in OCI for investments in equity instruments designated at FVTOCI are not reclassified subsequently to net earnings.

Controls and Procedures

Management is responsible for establishing and maintaining adequate internal control over financial reporting ("ICFR") and disclosure controls and procedures ("DC&P"). There have been no changes in our ICFR or DC&P during the year ended Dec. 31, 2018, that have materially affected, or are reasonably likely to materially affect, our ICFR or DC&P.

ICFR is a framework designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of Consolidated Financial Statements for external purposes in accordance with IFRS. Management has used the *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) in order to assess the effectiveness of the Corporation's ICFR.

DC&P refer to controls and other procedures designed to ensure that information required to be disclosed in the reports we file or submit under securities legislation are recorded, processed, summarized and reported within the time frame specified in securities legislation. DC&P include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in our reports that we file or submit under securities legislation is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding our required disclosure.

Together, the ICFR and DC&P frameworks provide internal control over financial reporting and disclosure. In designing and evaluating our ICFR and DC&P, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and as such may not prevent or detect all misstatements, and management is required to apply its judgment in evaluating and implementing possible controls and procedures. Further, the effectiveness of ICFR is subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with policies or procedures may change.

Management has evaluated, with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our ICFR and DC&P as of the end of the period covered by this report. Based on the foregoing evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as at Dec. 31, 2018, the end of the period covered by this report, our ICFR and DC&P were effective.