TransAlta renewables inc.

TransAlta Renewables Inc.

Consolidated Financial Statements

December 31, 2018

Consolidated Financial Statements

Management's Report

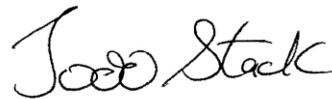
To the Shareholders of TransAlta Renewables Inc.

The Consolidated Financial Statements and other financial information included in this annual report have been prepared by management. It is management's responsibility to ensure that sound judgment, appropriate accounting principles and methods, and reasonable estimates have been used to prepare this information. They also ensure that all information presented is consistent.

Management is also responsible for establishing and maintaining internal controls and procedures over the financial reporting process. The internal control system includes an internal audit function and an established business conduct policy. TransAlta Corporation provides general administrative services to TransAlta Renewables Inc. under a Management, Administrative and Operational Services Agreement. Employees of TransAlta Corporation providing such services are required to adhere to TransAlta Corporation's business conduct policy. In addition, TransAlta Renewables Inc. has a code of conduct that can be viewed on TransAlta Renewables Inc.'s website (www.transaltarenewables.com). Management believes the system of internal controls, review procedures and established policies provide reasonable assurance as to the reliability and relevance of financial reports. Management also believes that TransAlta Renewables Inc.'s operations are conducted in conformity with the law and with a high standard of business conduct.

The Board of Directors (the "Board") is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal control. The Board carries out its responsibilities principally through its Audit and Nominating Committee (the "Committee"). The Committee, which consists solely of independent directors, reviews the financial statements and annual report and recommends them to the Board for approval. The Committee meets with management, internal auditors and external auditors to discuss internal controls, auditing matters and financial reporting issues. Internal and external auditors have full and unrestricted access to the Committee. The Committee also recommends the firm of external auditors to be appointed by the shareholders.

John Kousinioris
President



Todd Stack
Chief Financial Officer

March 5, 2019

Management's Annual Report on Internal Control over Financial Reporting

To the Shareholders of TransAlta Renewables Inc.

The following report is provided by management in respect of TransAlta Renewables Inc.'s internal control over financial reporting as defined in the Canadian Securities Administrators' National Instrument 52-109.

TransAlta Renewables Inc.'s management is responsible for establishing and maintaining adequate internal control over financial reporting for TransAlta Renewables Inc.

Management has used the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") 2013 framework to evaluate the effectiveness of TransAlta Renewables Inc.'s internal control over financial reporting. Management believes that the COSO 2013 framework is a suitable framework for its evaluation of TransAlta Renewables Inc.'s internal control over financial reporting because it is free from bias, permits reasonably consistent qualitative and quantitative measurements of TransAlta Renewables Inc.'s internal controls, is sufficiently complete so that those relevant factors that would alter a conclusion about the effectiveness of TransAlta Renewables Inc.'s internal controls are not omitted, and is relevant to an evaluation of internal control over financial reporting.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper overrides. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process, and it is possible to design safeguards into the process to reduce, though not eliminate, this risk.

Management has assessed the effectiveness of TransAlta Renewables Inc.'s internal control over financial reporting as at December 31, 2018, and has concluded that such internal control over financial reporting is effective.

John Kousinioris
President

Todd Stack
Chief Financial Officer

March 5, 2019

Independent Auditors' Report of Registered Public Accounting Firm

To the Shareholders of TransAlta Renewables Inc.

Opinion
We have audited the consolidated financial statements of TransAlta Renewables Inc. and its subsidiaries (the Corporation), which comprise the consolidated statements of financial position as at December 31, 2018 and 2017, and the consolidated statements of earnings, comprehensive income, changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects the consolidated financial position of the Corporation as at December 31, 2018 and 2017, and its consolidated financial performance and consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion
We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Corporation in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information
Management is responsible for the other information. The other information comprises:

- Management's Discussion and Analysis
- The information, other than the consolidated financial statements and our auditor's report thereon, in the Annual Report

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

We obtained Management's Discussion & Analysis and the Annual Report prior to the date of this auditor's report. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements
Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Corporation's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements
Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

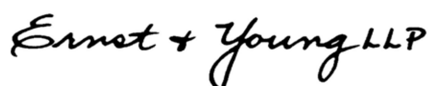
As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Corporation to cease to continue as a going concern.
- Evaluate the overall presentation, structure, and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this independent auditor's report is Valerie Bertram.



Chartered Professional Accountants
Calgary, Canada

March 5, 2019

Consolidated Statements of Earnings

Year ended Dec. 31 ***(in millions of Canadian dollars, except as otherwise noted)***	**2018**	2017 *(Restated)**
Revenues (Note 5)	**414**	410
Government incentives (Note 6)	**16**	18
Lease revenue (Note 7)	**32**	31
Total revenue	**462**	459
Fuel, royalties and other costs (Note 8)	**98**	97
Gross margin	**364**	362
Operations, maintenance and administration (Note 8)	**86**	83
Depreciation and amortization	**122**	115
Taxes, other than income taxes	**8**	8
Operating income	**148**	156
Finance income related to subsidiaries of TransAlta (Note 9)	**129**	39
Interest income (Note 10)	**45**	48
Interest expense (Note 10)	**(51)**	(59)
Change in fair value of financial assets (Note 9)	**(1)**	—
Change in fair value of Class B shares	**—**	(2)
Foreign exchange gain	**6**	6
Impairment of investment (Note 9)	**—**	(137)
Earnings before income taxes	**276**	51
Income tax expense (Note 11)	**35**	38
Net earnings	**241**	13
Net earnings (loss) attributable to:		
Common shareholders	**236**	9
Non-controlling interest (Note 12)	**5**	4
	241	13
Weighted average number of common shares outstanding in the year ***(millions)*** **(Note 20)**	**257**	235
Net earnings per share attributable to common shareholders, basic and diluted	**0.92**	0.04

**See Note 3(A) for information on prior period restatement.*

See accompanying notes.

Consolidated Statements of Comprehensive Income

Year ended Dec. 31 *(in millions of Canadian dollars)*	2018	2017
Net earnings	**241**	13
Other comprehensive income (loss)		
Net change in fair value of investments in subsidiaries of TransAlta (Note 9)	**40**	–
Total items that will not be reclassified subsequently to net earnings	**40**	–
Losses on derivatives designated as cash flow hedges, net of tax	**–**	(1)
Reclassification of losses on derivatives designated as cash flow hedges to net earnings, net of tax	**–**	1
Available-for-sale financial assets – net change in fair value (Note 9)	**–**	(171)
Reclassification of redemption on available-for-sale financial assets to net earnings (Note 9)	**–**	(3)
Reclassification of impairment on available-for-sale financial assets to net earnings (Note 9)	**–**	137
Total items that will be reclassified subsequently to net earnings	**–**	(37)
Other comprehensive income	**40**	(37)
Total comprehensive income	**281**	(24)

Total comprehensive income attributable to:		
Common shareholders	**276**	(28)
Non-controlling interest (Note 12)	**5**	4
	281	(24)

See accompanying notes.

Consolidated Statements of Financial Position

As at Dec. 31 *(in millions of Canadian dollars)*	**2018**	2017
Cash and cash equivalents (Note 13)	**73**	20
Accounts receivable (Note 13)	**115**	111
Restricted cash (Notes 13 and17)	**31**	–
Prepaid expenses	**2**	2
Risk management assets (Note 13)	**–**	1
Inventory	**6**	6
Current portion of other assets (Note 16)	**23**	5
	250	145
Property, plant and equipment (Note 14)		
Cost	**2,842**	2,805
Accumulated depreciation	**(1,023)**	(936)
	1,819	1,869
Intangible assets (Note 15)	**124**	103
Restricted cash (Notes 13 and17)	**–**	30
Other assets (Note 16)	**42**	35
Investments in subsidiaries of TransAlta (Notes 9 and 13)	**1,495**	1,437
Deferred income tax assets (Note 11)	**17**	9
Total assets	**3,747**	3,628
Accounts payable and accrued liabilities (Note 13)	**47**	41
Dividends payable (Notes 13 and 20)	**62**	59
Current portion of decommissioning and other provisions (Note 18)	**–**	2
Risk management liabilities (Note 13)	**1**	4
Current portion of long-term debt (Notes 13 and 17)	**49**	250
	159	356
Long-term debt (Notes 13,17 and 25)	**883**	793
Decommissioning provisions and other provisions (Note 18)	**44**	42
Deferred revenues (Note 19)	**7**	8
Deferred income tax liabilities (Note 11)	**258**	232
Total liabilities	**1,351**	1,431
Equity		
Common shares (Note 20)	**3,011**	2,854
Deficit (Note 3(A))	**(567)**	(701)
Accumulated other comprehensive income (loss) (Note 3(A))	**(89)**	8
Equity attributable to shareholders	**2,355**	2,161
Non-controlling interest (Note 12)	**41**	36
Total equity	**2,396**	2,197
Total liabilities and equity	**3,747**	3,628

Commitments and contingencies (Note 24)

On behalf of the Board:

Allen R. Hagerman
Director

Kathryn B. McQuade
Director

See accompanying notes.

Consolidated Statements of Changes in Equity

(in millions of Canadian dollars)

	Common shares	Deficit	Accumulated other comprehensive income (loss)	Attributable to shareholders	Attributable to non-controlling interest	Total
Balance, Dec. 31, 2017	2,854	(701)	8	2,161	36	**2,197**
Impacts of change in accounting policy (Note 3(A)):						
Reclassification of impairment on available-for-sale financial assets	—	137	(137)	—	—	**—**
Fair value adjustment on available-for-sale financial asset	—	3	—	3	—	**3**
Adjusted balance, Jan. 1, 2018	**2,854**	**(561)**	**(129)**	**2,164**	**36**	**2,200**
Net earnings	—	236	—	236	5	**241**
Other comprehensive income:						
Net change in fair value of investments in subsidiaries of TransAlta (Note 9)	—	—	40	40	—	**40**
Total comprehensive income	—	236	40	276	5	**281**
Common share dividends (Note 20)	—	(245)	—	(245)	—	**(245)**
Acquisitions (Note 4)	—	3		3		3
Dividend reinvestment program (Note 20)	12	—	—	12	—	12
Completion of public share offering (Note 20)	145	—	—	145	—	145
Balance, Dec. 31, 2018	**3,011**	**(567)**	**(89)**	**2,355**	**41**	**2,396**

See accompanying notes.

(in millions of Canadian dollars)

	Common shares	Deficit	Accumulated other comprehensive income	Attributable to shareholders	Attributable to non-controlling interest	Total
Balance, Dec. 31, 2016	2,469	(488)	45	2,026	35	2,061
Net earnings	—	9	—	9	4	13
Other comprehensive income:						
Net change in fair value of available-for-sale financial assets (Note 9)	—	—	(37)	(37)	—	(37)
Total comprehensive income (loss)	—	9	(37)	(28)	4	(24)
Common shares issued to TransAlta (Note 20)	385	—	—	385	—	385
Common share dividends (Note 20)	—	(222)	—	(222)	—	(222)
Distributions to non-controlling interest	—	—	—	—	(3)	(3)
Balance, Dec. 31, 2017	2,854	(701)	8	2,161	36	2,197

See accompanying notes.

Consolidated Statements of Cash Flows

Year ended Dec. 31 *(in millions of Canadian dollars)*	**2018**	2017
Operating activities		
Net earnings	**241**	13
Depreciation and amortization	**122**	115
Decommissioning provision costs settled	**—**	(1)
Accretion of provisions (Notes 10 and 18)	**3**	2
Deferred income tax expense (Note 11)	**29**	32
Change in fair value of financial assets	**1**	—
Change in fair value of Class B shares	**—**	2
Unrealized foreign exchange (gain) loss	**(6)**	(5)
Unrealized (gain) loss from risk management activities	**—**	1
Provisions	**—**	(1)
Impairment of investment (Note 9)	**—**	137
Other non-cash items	**—**	12
Cash flow from operations before changes in working capital	**390**	307
Change in non-cash operating working capital balances (Note 21)	**(5)**	(17)
Cash flow from operating activities	**385**	290
Investing activities		
Additions to property, plant and equipment (Note 14)	**(63)**	(38)
Loans receivable advances, net of repayments (Note 16)	**(22)**	(38)
Proceeds on redemptions of investments in subsidiaries (Note 9)	**107**	217
Proceeds on sale of assets	**1**	—
Investments in subsidiaries of TransAlta (Note 9)	**(140)**	(233)
Acquisitions (Note 4)	**(39)**	—
Realized gain on financial instruments	**—**	12
Return of capital on investments in subsidiaries of TransAlta (Note 9)	**17**	43
Restricted cash (Note 17)	**—**	(30)
Repayment of loan receivable	**1**	—
Change in non-cash investing working capital balances	**2**	2
Other	**(1)**	—
Cash flow used in investing activities	**(137)**	(65)
Financing activities		
Net increase (decrease) in borrowings under credit facilities (Note 17)	**136**	12
Repayments of Canadian Assets working capital loan and TEA loan (Note 17)	**(199)**	(13)
Debt issuance costs	**—**	(1)
Issuance of long-term debt (Note 17)	**—**	260
Long-term debt repayments (Note 17)	**(48)**	(236)
Repayment of convertible debenture	**—**	(215)
Net proceeds on issuance of common shares (Note 20)	**144**	—
Dividends paid on common shares (Note 20)	**(230)**	(212)
Proceeds of TEA loan (Note 17)	**—**	194
Distributions to non-controlling interest (Note 12)	**—**	(3)
Other	**2**	(6)
Cash flow used in financing activities	**(195)**	(220)
Increase in cash and cash equivalents	**53**	5
Cash and cash equivalents, beginning of year	**20**	15
Cash and cash equivalents, end of year	**73**	20
Cash income taxes paid	**6**	5
Cash interest paid	**45**	50

See accompanying notes.

Notes to Consolidated Financial Statements

(Tabular amounts in thousands of Canadian dollars, except as otherwise noted)

1. Corporate Information

A. Formation of the Corporation

TransAlta Renewables Inc. ("TransAlta Renewables" or the "Corporation") was incorporated on May 28, 2013, under the *Canada Business Corporations Act* and has been formed to own a portfolio of renewable and natural gas power generation facilities and other infrastructure assets. The Corporation is a majority-owned subsidiary of TransAlta Corporation ("TransAlta"). The Corporation's head office is located in Calgary, Alberta.

B. Basis of Preparation

These Consolidated Financial Statements have been prepared by management in compliance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The Consolidated Financial Statements include the accounts of the Corporation and the subsidiaries that it controls. Control exists when the Corporation is exposed, or has rights, to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary.

The Consolidated Financial Statements have been prepared on a historical cost basis, except for certain financial instruments, which are stated at fair value.

The Consolidated Financial Statements reflect all adjustments that consist of normal recurring adjustments and accruals that are, in the opinion of management, necessary for a fair presentation of results. The Corporation's results are partly seasonal due to the nature of electricity, which is generally consumed as it is generated; and the nature of wind and run-of-river hydro resources, which fluctuate based on both seasonal patterns and annual 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. Inversely, wind speeds are historically greater during the cold winter months and lower in the warm summer months.

The Consolidated Financial Statements are presented in Canadian dollars, which is the Corporation's functional and presentation currency. All financial information presented in the tables is in Canadian dollars and has been rounded to the nearest million dollars unless otherwise noted.

These consolidated financial statements were authorized for issue by the Board of Directors (the "Board") on March 5, 2019.

2. Significant Accounting Policies

A. Revenue Recognition

I. 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, which is outlined below.

The majority of the Corporation's revenues from contracts with customers are derived from the sale of electricity, capacity and Green Attributes. Green Attributes are Renewable Energy Certificates and carbon offsets, or other tradable or saleable instruments that represent the property rights to the environmental, social and other non-power qualities of renewable electricity generation that can be sold separately from the underlying physical electricity.

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 good 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.

Performance Obligations
The majority of the Corporation's revenues from contracts with customers are derived from the sale of electricity, capacity and Green Attributes. Each promised good or service is accounted for separately as a performance obligation if it is distinct. The Corporation's contracts may contain more than one performance obligation.

Transaction Price
The Corporation allocates the transaction price in the contract to each performance obligation. Transaction price allocated to performance obligations may include variable consideration. Variable consideration is included in the transaction price for each performance obligation when it is highly probable that a significant reversal of the cumulative variable revenue will not occur. Variable consideration is assessed at each reporting period to determine whether the constraint is lifted. The consideration contained in some of the Corporation's contracts with customers is primarily variable, and may include both variability in quantity and pricing, such as: revenues can be dependent upon future production volumes that are driven by customer or market demand or by the operational ability of the plant; revenues can be dependent upon the variable cost of producing the energy; revenues can be dependent upon market prices; and revenues can be subject to various indices and escalators.

When multiple performance obligations are present in a contract, transaction price is allocated to each performance obligation in an amount that depicts the consideration the Corporation expects to be entitled to in exchange for transferring the good or service. The Corporation estimates the amount of the transaction price to allocate to individual performance obligations based on their relative stand-alone selling prices, which is primarily estimated based on the amounts that would be charged to customers under similar market conditions.

Recognition
The nature, timing of recognition of satisfied performance obligations, and payment terms for the Corporation's goods and services are described below:

Contract Power
The sale of contract power refers to the delivery of units of electricity to a customer under the terms of a contract. Customers pay a contractually specified price for the output at the end of predefined contractual periods (i.e., monthly). Obligations to deliver electricity are satisfied over time and revenue is recognized using a units-based output measure (i.e., megawatt hours). Contracts for power are typically long term in nature and payments are typically received on a monthly basis.

Capacity
Capacity refers to the availability of an asset to deliver goods or services. Customers typically pay for capacity for each defined time period (i.e., monthly) in an amount representative of availability of the asset for the defined time period. Obligations to deliver capacity are satisfied over time and revenue is recognized using a time-based measure. Contracts for capacity are typically long term in nature. Payments are typically received from customers on a monthly basis.

Green Attributes
Green Attributes refers to the delivery of Renewable Energy Certificates, green attributes and other similar items. Customers may contract for Renewable Energy Certificates in conjunction with the purchase of power, in which case the customer pays in the month subsequent to the delivery of the power. Alternatively, when Green Attributes are sold separately, customers pay upon delivery. Obligations to deliver Green Attributes are satisfied at a point in time, generally upon delivery of the item.

A contract liability is recognized when the Corporation receives consideration before the performance obligations have been satisfied. A contract asset is recognized when the Corporation has rights to consideration for the completion of a performance obligation before it has invoiced the customer. The Corporation recognizes unconditional rights to consideration separately as a receivable. Contract assets and receivables are evaluated at each reporting period to determine whether there is any objective evidence that they are impaired.

Significant Judgments
Identification of Performance Obligations
Where contracts contain multiple promises for goods or services, management exercises judgment in determining whether goods or services constitute distinct goods or services or a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer. The determination of a performance obligation affects whether the transaction price is recognized at a point in time or over time. Management considers both the mechanics of the contract and the economic and operating environment of the contract in determining whether the goods or services in a contract are distinct.

Transaction Price
In determining the transaction price and estimates of variable consideration, management considers past history of customer usage in estimating the goods and services to be provided to the customer. The Corporation also considers the historical production levels and operating conditions for its variable generating assets.

Satisfaction of Performance Obligations
The satisfaction of performance obligations requires management to make judgments as to when control of the underlying good or service transfers to the customer. Determining when a performance obligation is satisfied affects the timing of revenue recognition. Management considers both customer acceptance of the good or service, and the impact of laws and regulations such as certification requirements, in determining when this transfer occurs. Management also applies judgment in determining whether the invoice practical expedient permits recognition of revenue at the invoiced amount, if that invoiced amount corresponds directly with the entity's performance to date.

II. Other Revenues
Dividend income from investments is recognized when the right to receive payment has been established, usually on declaration of dividends by the paying entity’s Board of Directors. Dividends characterized as a return of capital are recognized as a reduction in the cost of the related investment.

Interest income on financial assets classified as amortized cost is accrued on a passage-of-time basis based on the principal outstanding and the applicable stated interest rates. Guarantee fee income is accrued on the basis of the period and amounts over which the guarantee is provided.

III. Revenue Recognition Policy in Prior Years
The majority of the Corporation’s revenues are derived from the sale of physical power. Electrical energy sales are recognized: (i) at the time of generation and delivery to the purchasing party as metered at the point of interconnection with the transmission system; (ii) when the amount of the revenue can be reliably measured; (iii) when it is probable that the economic benefits will flow to the Corporation; and (iv) when the costs incurred or to be incurred in respect of the transaction can be reliably measured. Green Attributes sales are recognized at the time of delivery to the purchasing party. Green Attributes are Renewable Energy Certificates and carbon offsets or other tradable or salable instruments that represent the property rights to the environmental, social and other non-power qualities of renewable electricity generation that can be sold separately from the underlying physical electricity. Revenues are measured at the fair value of the consideration received or receivable.

In certain situations, a power purchase agreement (“PPA”) may contain, or be considered, a lease. Revenues associated with non-lease elements are recognized as goods or services revenues as outlined above. Revenues associated with leases are recognized as outlined in Note 2(O).

Dividend income from investments is recognized when the right to receive payment has been established, usually on declaration of dividends by the paying entity’s Board of Directors. Dividends characterized as a return of capital are recognized as a reduction in the cost of the related investment.

Interest income on financial assets classified as loans and receivables is accrued on a passage-of-time basis based on the principal outstanding and the applicable stated interest rates. Guarantee fee income is accrued on the basis of the period and amounts over which the guarantee is provided.

B. Foreign Currency Translation
The Corporation’s functional currency is the Canadian dollar. Foreign-currency-denominated monetary assets and liabilities are translated at exchange rates in effect at the end of the reporting period. Transactions denominated in a currency other than the functional currency are translated at the exchange rate in effect on the transaction date. The resulting exchange gains or losses are included in net earnings in the period in which they arise.

C. Financial Instruments
I. Financial Instruments, Impairment and Hedging
Effective Jan. 1, 2018, the Corporation adopted IFRS 9. In accordance with the transition provisions of the standard, the Corporation has elected not to restate prior periods. The cumulative impact of adopting IFRS 9 was recognized at the initial date of application. Comparative period information is reported under IAS 39. Refer to section (II) below for information on the prior accounting policy.

a. Classification and Measurement

IFRS 9 introduces the requirement to classify and measure financial assets based on their contractual cash flow characteristics and the business model under which the Corporation holds the financial asset. All financial assets and financial liabilities, including derivatives, are recognized at fair value on the Consolidated Statements of Financial Position when the Corporation becomes party to the contractual provisions of a financial instrument or non-financial derivative contract. Financial assets must be classified and measured at either amortized cost, fair value through profit or loss ("FVTPL"), or fair value through other comprehensive income ("FVTOCI").

Financial assets whose contractual cash flows arise on specified dates, consist solely of principal and interest, and are held within a business model whose objective is to collect the contractual cash flows are subsequently measured at amortized cost. Financial assets measured at FVTOCI are those that have contractual cash flows arising on specific dates, consisting solely of principal and interest, and that are held within a business model whose objective is to collect the contractual cash flows and to sell the financial asset. All other financial assets and equity investments are subsequently measured at FVTPL.

At initial recognition, the Corporation may irrevocably elect to measure particular investments in equity instruments at FVTOCI that would otherwise be measured at FVTPL. When an equity investment is designated as measured at FVTOCI, the cumulative gain or loss previously recognized in other comprehensive income ("OCI") is not subsequently reclassified to profit or loss.

Refer to section Q(II) below for policy on return of capital for investments in equity instruments.

Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of IFRS 9 are treated as separate derivatives when they meet the definition of a derivative, their risks and economic characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL. Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of IFRS 9 are not separated and the entire contract is measured at FVTOCI, FVTPL or amortized cost, as appropriate.

Financial assets are derecognized when the contractual rights to receive cash flows expire. Financial liabilities are derecognized when the obligation is discharged, cancelled or expired.

Transaction costs are expensed as incurred for financial instruments classified or designated as at fair value through profit or loss. For other financial instruments transaction costs are recognized as part of the initial carrying amount of the financial instrument. The Corporation uses the effective interest method of amortization for any transaction costs or fees, premiums or discounts earned or incurred for financial instruments measured at amortized cost.

Financial liabilities are classified as FVTPL when the financial liability is held for trading. All other financial liabilities are subsequently measured at amortized cost.

The Corporation may enter into a variety of derivative financial instruments to manage its exposure to commodity price risk, interest rate risk, and foreign currency exchange risk, including fixed price financial swaps, long-term physical power sale contracts, and foreign exchange forward contracts. Derivatives are initially recognized at fair value at the date the derivative contracts are entered into and are subsequently measured at their fair value at the end of each reporting period. The resulting gain or loss is recognized in net earnings immediately unless the derivative is designated and effective as a hedging instrument, in which case the timing of the recognition in net earnings is dependent on the nature of the hedging relationship.

b. Impairment of Financial Assets

The Corporation recognizes an allowance for expected credit losses for financial assets measured at amortized cost as well as certain other instruments. The loss allowance for a financial asset is measured at an amount equal to the lifetime expected credit loss if its credit risk has increased significantly since initial recognition, or if the financial asset is a purchased or originated credit-impaired financial asset. If the credit risk on a financial asset has not increased significantly since initial recognition, its loss allowance is measured at an amount equal to the 12-month expected credit loss.

For trade receivables, lease receivables and contract assets recognized under IFRS 15, the Corporation applies a simplified approach for measuring the loss allowance. Therefore, the Corporation does not track changes in credit risk but instead recognizes a loss allowance at an amount equal to the lifetime expected credit losses at each reporting date.

The assessment of the expected credit loss is based on historical data, and adjusted by forward-looking information. Forward-looking information utilized includes third party default rates over time, dependent on credit ratings.

c. General Hedge Accounting
IFRS 9 retains the three types of hedges (cash flow, fair value, and net investment), but increases flexibility as to the types of transactions that are eligible for hedge accounting.

The effectiveness test of IAS 39 is replaced by the principle of an "economic relationship", which requires that the hedging instrument and the hedged item have values that generally move in opposite directions because of the hedged risk. Additionally, retrospective hedge effectiveness testing is no longer required under IFRS 9.

In certain cases, the Corporation purchases non-financial items in a foreign currency, for which it enters into foreign exchange contracts to hedge foreign currency risk on the anticipated payments. IFRS 9 requires hedging gains and losses to be basis adjusted to the initial carrying amount of non-financial hedged items once recognized, but under IFRS 9, these adjustments are no longer considered reclassification adjustments and do not affect other comprehensive income. Under IFRS 9, these amounts will be directly transferred to the asset and will be reflected in the statement of changes in equity as a reclassification from accumulated other comprehensive income ("AOCI").

II. Financial Instruments, Impairment and Hedging Policy in Prior Years
a. Financial Instruments and Impairment
Financial assets and financial liabilities, including derivatives and certain non-financial derivatives, are recognized on the Consolidated Statements of Financial Position when the Corporation becomes a party to the contract. All financial instruments, except for certain non-financial derivative contracts that meet the Corporation's own use requirements, are measured at fair value upon initial recognition. Measurement in subsequent periods depends on whether the financial instrument has been classified as: at fair value through profit or loss, available-for-sale, held-to-maturity, loans and receivables, or other financial liabilities. Classification of the financial instrument is determined at inception depending on the nature and purpose of the financial instrument.

Financial assets and financial liabilities classified or designated as at fair value through profit or loss are measured at fair value with changes in fair values recognized in net earnings. Financial assets classified as either held-to-maturity or as loans and receivables, and other financial liabilities, are measured at amortized cost using the effective interest method of amortization. Available-for-sale financial assets are those non-derivative financial assets that are designated as such or that have not been classified as another type of financial asset, and are measured at fair value through OCI. Available-for-sale financial assets are measured at cost if fair value is not reliably measurable.

Financial assets are assessed for impairment on an ongoing basis and at reporting dates. An impairment may exist if an incurred loss event has arisen that has an impact on the recoverability of the financial asset. Factors that may indicate an incurred loss event and related impairment may exist include, for example: a debtor is experiencing significant financial difficulty, or a debtor has entered (or it is probable that they will) enter bankruptcy or other financial reorganization. Additionally, a significant or prolonged decline in the fair value, as compared to the cost, of a financial asset classified as available-for-sale may be an indicator of impairment. The carrying amount of financial assets is reduced for impairment losses through the use of an allowance account and the loss is recognized in net earnings.

Financial assets are derecognized when the contractual rights to receive cash flows expire. Financial liabilities are derecognized when the obligation is discharged, cancelled or expired.

Derivative instruments that are embedded in financial or non-financial contracts that are not already required to be recognized at fair value are treated and recognized as separate derivatives if their risks and characteristics are not closely related to their host contracts and the contract is not measured at fair value. Changes in the fair values of these and other derivative instruments are recognized in net earnings with the exception of the effective portion of derivatives designated as cash flow hedges, which is recognized in OCI.

Transaction costs are expensed as incurred for financial instruments classified or designated as at fair value through profit or loss. For other financial instruments, such as debt instruments, transaction costs are recognized as part of the carrying amount of the financial instrument. The Corporation uses the effective interest method of amortization for any transaction costs or fees, premiums, or discounts earned or incurred for financial instruments measured at amortized cost.

b. Hedge Accounting
Where hedge accounting can be applied and the Corporation chooses to seek hedge accounting treatment, a hedge relationship is designated as a fair value hedge or a cash flow hedge. A hedging relationship qualifies for hedge accounting if, at inception, it is formally designated and documented as a hedge, and the hedge is expected to be highly effective at inception and on an ongoing basis. The documentation includes identification of the hedging instrument and hedged item or transaction, the nature of the risk being hedged, the Corporation's risk management objectives and strategy for undertaking the hedge, and how hedge effectiveness will be assessed. The process of hedge accounting includes linking

derivatives to specific recognized assets and liabilities or to specific firm commitments or highly probable anticipated transactions.

The Corporation formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives used are highly effective in offsetting changes in fair values or cash flows of hedged items. If hedge criteria are not met or the Corporation does not apply hedge accounting, the derivative is accounted for on the Consolidated Statements of Financial Position at fair value, with subsequent changes in fair value recorded in net earnings in the period of change.

In a cash flow hedging relationship, the effective portion of the change in the fair value of the hedging derivative is recognized in OCI and any ineffective portion is recognized in net earnings. Hedge effectiveness is achieved if the derivative's cash flows are highly effective at offsetting the cash flows of the hedged item and the timing of the cash flows is similar. All components of each derivative's change in fair value are included in the assessment of cash flow hedge effectiveness. If hedging criteria are met, the fair values of the hedges are recorded in risk management assets or liabilities with changes in fair value being reported in OCI. On settlement, gains or losses on these derivatives are recognized in net earnings in the same period and financial statement caption as the hedged exposure or in the cost of the asset acquired if the hedge relates to a non-financial asset. If hedge accounting is discontinued, the amounts previously recognized in AOCI are reclassified to net earnings during the periods when the variability in the cash flows of the hedged item affects net earnings. Gains or losses on derivatives are reclassified to net earnings from AOCI immediately when the forecasted transaction is no longer expected to occur within the time period specified in the hedge documentation.

D. Cash and Cash Equivalents

Cash and cash equivalents are comprised of cash and highly liquid investments with original maturities of three months or less.

E. Inventory

I. Emission Credits

Purchased emission credits and allowances are recorded as inventory at cost and are carried at the lower of weighted average cost and net realizable value. Credits granted to, or internally generated by, the Corporation are recorded at nil.

II. Parts, Materials and Supplies

Parts, materials and supplies are recorded at the lower of cost, measured at moving average cost and net realizable value.

F. Property, Plant and Equipment

The Corporation's investment in property, plant and equipment ("PP&E") is initially measured at the original cost of each component at the time of construction, purchase or acquisition. A component is a tangible portion of an asset that can be separately identified and depreciated over its own expected useful life, and is expected to provide a benefit for a period in excess of one year. Original cost includes items such as materials, labour, borrowing costs and other directly attributable costs, including the initial estimate of the cost of decommissioning and restoration. Costs are recognized as PP&E assets if it is probable that future economic benefits will be realized and the cost of the item can be measured reliably.

The cost of capital spares is capitalized and classified as PP&E, as these items can only be used in connection with an item of PP&E.

Planned life-cycle maintenance for hydro facilities is performed at regular intervals and includes inspection, repair and maintenance of existing components. Costs incurred are capitalized in the period in which maintenance activities occur and are amortized on a straight-line basis over the term until the next life-cycle maintenance event. Expenditures incurred for the replacement of components are capitalized and amortized over the estimated useful life of such components.

The cost of routine repairs and maintenance and the replacement of minor parts is charged to net earnings as incurred.

Subsequent to initial recognition and measurement at cost, all classes of PP&E continue to be measured using the cost model and are reported at cost less accumulated depreciation and impairment losses, if any.

An item of PP&E or a component is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition is included in net earnings when the asset is derecognized.

The estimate of the useful lives of each component of PP&E is based on current facts and past experience, and takes into consideration existing long-term sales agreements and contracts, current and forecasted demand, and the potential for technological obsolescence. The useful life is used to estimate the rate at which the component of PP&E is depreciated. PP&E assets are subject to depreciation when the asset is considered to be available for use, which is typically upon commencement of commercial operations. Each significant component of an item of PP&E is depreciated to its residual value over its estimated useful life, using the straight-line method. Estimated useful lives, residual values and depreciation methods are reviewed at least annually and are subject to revision based on new or additional information. The effect of a change in useful life, residual value or depreciation method is accounted for prospectively.

Estimated useful lives of the components of depreciable assets, categorized by asset class, are as follows:

Hydro generation	30-50 years
Wind generation	3-30 years
Gas generation	2-30 years
Capital spares and other	2-30 years

The Corporation capitalizes borrowing costs on capital invested in projects under construction (see Note 2(K)). Upon commencement of commercial operations, capitalized borrowing costs, as a portion of the total cost of the asset, are depreciated over the estimated useful life of the related asset.

G. Intangible Assets

Intangible assets acquired in a business combination are recognized at their fair value at the date of acquisition. Intangible assets acquired separately are recognized at cost. Internally generated intangible assets arising from development projects are recognized when certain criteria related to the feasibility of internal use or sale, and probable future economic benefits, of the intangible asset are demonstrated. Intangible assets are initially recognized at cost, which is comprised of all directly attributable costs necessary to create, produce and prepare the intangible asset to be capable of operating in the manner intended by management.

Subsequent to initial recognition, intangible assets continue to be measured using the cost model, and are reported at cost less accumulated amortization and impairment losses, if any. Amortization is included in depreciation and amortization in the Consolidated Statements of Earnings.

Amortization commences when the intangible asset is available for use and is computed on a straight-line basis over the intangible asset's estimated useful life. Estimated useful lives of intangible assets may be determined, for example, with reference to the term of the related contract or licence agreement. The estimated useful lives and amortization methods are reviewed annually with the effect of any changes being accounted for prospectively.

Intangible assets include power sale contracts with fixed prices higher than market prices at the date of acquisition, software and intangibles under development. Estimated useful lives of intangible assets are as follows:

Software	2-7 years
Power sale contracts	5-20 years

H. Impairment of Tangible and Intangible Assets

At the end of each reporting period, the Corporation assesses whether there is any indication that PP&E and finite life intangible assets are impaired.

Factors that could indicate that an impairment exists include: significant underperformance relative to historical or projected operating results; significant changes in the manner in which an asset is used, or in the Corporation's overall business strategy; or significant negative industry or economic trends. In some cases, these events are clear. However, in many cases, a clearly identifiable event indicating possible impairment does not occur. Instead, a series of individually insignificant events occurs over a period of time leading to an indication that an asset may be impaired.

The Corporation's operations, the market and business environment are routinely monitored, and judgments and assessments are made to determine whether an event has occurred that indicates a possible impairment. If such an event has occurred, an estimate is made of the recoverable amount of the asset. Recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. In determining fair value, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model, such as discounted cash

flows, is used. Value in use is the present value of the estimated future cash flows expected to be derived from the asset from its continued use and ultimate disposal by the Corporation. If the recoverable amount is less than the carrying amount of the asset, an asset impairment loss is recognized in net earnings and the asset's carrying amount is reduced to its recoverable amount.

At each reporting date, an assessment is made to determine if there is any indication that an impairment loss previously recognized no longer exists or has decreased. If such indication exists, the recoverable amount of the asset is estimated and the impairment loss previously recognized is reversed if there has been an increase in the asset's recoverable amount. Where an impairment loss is subsequently reversed, the carrying amount of the asset is increased to the lesser of the revised estimate of its recoverable amount or the carrying amount that would have been determined (net of depreciation) had no impairment loss been recognized previously. A reversal of an impairment loss is recognized in net earnings.

I. Income Taxes

Income tax expense comprises current and deferred income tax. Current income tax is the expected income tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to income taxes in respect of previous years.

Deferred income tax is recognized in respect of differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes (temporary differences). Deferred income tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the tax laws that have been enacted or substantively enacted at the reporting date.

A deferred income tax asset is recognized for unused tax losses and tax credits to the extent that it is probable that future taxable profits will be available against which such losses can be utilized. Deferred income tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related income tax benefit will be realized.

J. Provisions

Provisions are recognized when the Corporation has a present obligation (legal or constructive) as a result of a past event, it is probable that the Corporation will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. A legal obligation can arise through a contract, legislation or other operation of law. A constructive obligation arises from an entity's actions, whereby through an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated it will accept certain responsibilities and has thus created a valid expectation that it will discharge those responsibilities. The amount recognized as a provision is the best estimate, remeasured at each period-end, of the expenditures required to settle the present obligation considering the risks and uncertainties associated with the obligation. Where expenditures are expected to be incurred in the future, the obligation is measured at its present value using a current market-based, risk-adjusted interest rate.

The Corporation records a decommissioning and restoration provision for all generating facilities for which it is legally or constructively required to remove the facilities at the end of their useful lives and restore the site. For some hydro facilities, the Corporation is required to remove the generating equipment, but is not required to remove the structures. Initial decommissioning provisions are recognized at their present value when incurred. Each reporting date, the Corporation determines the present value of the provision using the current discount rates that reflect the time value of money and associated risks. The Corporation recognizes the initial decommissioning and restoration provisions, as well as changes resulting from revisions to cost estimates and period-end revisions to the market-based, risk-adjusted discount rate, as a cost of the related PP&E (see Note 2(F)). The accretion of the net present value discount is charged to net earnings each period and is included in net interest expense.

Changes in other provisions resulting from revisions to estimates of expenditures required to settle the obligation or period-end revisions to the market-based, risk-adjusted discount rate are recognized in net earnings. The accretion of the net present value discount is charged to net earnings each period and is included in net interest expense.

K. Borrowing Costs

The Corporation capitalizes borrowing costs that are directly attributable to, or relate to general borrowings used for, the construction of qualifying assets. Qualifying assets are assets that take a substantial period of time to prepare for their intended use and typically include generating facilities or other assets that are constructed over periods of time exceeding 12 months. Borrowing costs are considered to be directly attributable if they could have been avoided if the expenditure on the qualifying asset had not been made. Borrowing costs that are capitalized are included in the cost of the related PP&E component. Capitalization of borrowing costs ceases when substantially all the activities necessary to prepare the asset for its intended use are complete.

All other borrowing costs are expensed in the period in which they are incurred.

L. Non-Controlling Interest

A non-controlling interest arises from contractual arrangements between the Corporation and other parties, whereby the other party has acquired an interest in a specified asset or operation, and the Corporation retains control.

Subsequent to acquisition, the carrying amount of the non-controlling interest is increased or decreased by the non-controlling interest's share of subsequent changes in equity and payments to the non-controlling interest. Total comprehensive income is attributed to the non-controlling interest even if this results in the non-controlling interest having a negative balance.

M. Joint Arrangements

A joint arrangement is a contractual arrangement that establishes the terms by which two or more parties agree to undertake and jointly control an economic activity. The Corporation's joint arrangements are generally classified as joint operations.

A joint operation arises when two or more parties that have joint control have rights to the assets, and obligations for the liabilities, relating to the arrangement. Generally, each party takes a share of the output from the asset and each bears an agreed-upon share of the costs incurred in respect of the joint operation. The Corporation reports its interests in joint operations in its Consolidated Financial Statements using the proportionate consolidation method by recognizing the assets, liabilities, revenues and expenses in respect of its interest in the joint operation that it has a right to.

N. Government Incentives

Government incentives are recognized when the Corporation has reasonable assurance that it will comply with the conditions associated with the incentive and that the incentive will be received. When the incentive relates to an expense or revenue item, it is recognized in net earnings over the same period in which the related costs or revenues are recognized. When the incentive relates to an asset, it is recognized as a reduction of the carrying amount of PP&E and released to earnings as a reduction in depreciation expense over the expected useful life of the related asset.

O. Leases

A lease is an arrangement whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time.

PPAs may contain, or may be considered, leases where the fulfilment of the arrangement is dependent on the use of a specific asset (i.e., a generating facility) and the arrangement conveys to the customer the right to use that asset.

Where the Corporation determines that the contractual provisions of a PPA contain, or are, a lease and result in the Corporation retaining the principal risks and rewards of ownership of the asset, the arrangement is an operating lease. For operating leases, the asset is, or continues to be, capitalized as PP&E and depreciated over its useful life. Rental income, including contingent rent, from operating leases is recognized over the term of the arrangement and is reflected in revenue on the Consolidated Statements of Earnings. Contingent rent may arise when payments due under the PPA are not fixed in amount but vary based on a future factor such as the amount of use or production.

P. Earnings per Share

Basic earnings per share is calculated by dividing earnings attributable to common shareholders by the weighted average number of common shares outstanding in the year.

Diluted earnings per share is calculated by dividing net earnings attributable to common shareholders, adjusted for the after-tax effects of dividends, interest or other changes in net earnings that would result from potential dilutive instruments, by the weighted average number of common shares outstanding in the year, adjusted for additional common shares that would have been issued on the conversion of all potential dilutive instruments.

Q. Significant Accounting Judgments and Key Sources of Estimation Uncertainty

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, and such differences could be material.

In the process of applying the Corporation's accounting policies, 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:

I. 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 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 TransAlta Energy (Australia) Pty Ltd. ("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 dividend remains 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.

II. 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.

III. Financial Instrument Fair Values
The Corporation has entered into financial instruments and derivatives that are accounted for at fair value, with the initial and subsequent changes in fair value affecting earnings and OCI in the period the change occurs. The fair values of financial instruments and derivatives are classified within three levels.

Level III fair values are determined using inputs for the asset or liability that are not readily observable. These fair value levels are outlined and discussed in more detail in Note 13. Some of the Corporation's fair values are included in Level III because they require the use of significant unobservable assumptions in the internal valuation techniques or models to determine fair value. The determination of the fair value of these contracts can be complex and relies on judgments and estimates concerning operating revenue, costs, discount rates and business alternatives, among other factors. These fair value estimates may not necessarily be indicative of the amounts that could be realized or settled, and changes in these assumptions could affect the reported fair value of the financial instruments. Fair values can fluctuate significantly and can be favourable or unfavourable depending on current market conditions.

IV. Consolidation of Kent Hills 1, 2 and 3 (“Kent Hills”) Wind Farms

Under IFRS, the Corporation is required to consolidate all entities that it controls. The Corporation consolidates Kent Hills as a subsidiary. In September 2017, the Corporation and the Kent Hills non-controlling interest partner formed a limited partnership ("LP") that owns the Kent Hills 1 and 2 Wind Farms and the Kent Hills 3 expansion project. Ownership of the LP is 83 per cent and 17 per cent, respectively. The Corporation controls the Kent Hills Wind LP through its 83 per cent ownership, and accordingly, consolidation is required.

V. 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, capital expenditures, 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. All of the Corporation’s generating assets are contracted under the TransAlta PPAs or other PPAs with various third parties.

VI. 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 Company’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.

VII. Provisions for Decommissioning and Restoration Activities

The Corporation recognizes provisions for decommissioning and restoration obligations as outlined in Note 2(J) and Note 18. Initial decommissioning provisions, and subsequent changes thereto, are determined using the Corporation’s best estimate of the required cash expenditures, adjusted to reflect the risks and uncertainties inherent in the timing and amount of settlement. The estimated cash expenditures are present valued using a current, risk-adjusted, market-based, pre-tax discount rate. A change in estimated cash flows, market interest rates or timing could have a material impact on the carrying amount of the provision.

VIII. 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.

IX. Impairment of Investments

a. Impairment of Investments

For investments in subsidiaries carried at fair value (see Note 9), 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.

b. Policy in Prior Years
For investments in subsidiaries carried at fair value or cost, the Corporation assesses at the end of each reporting period whether there is any indication that the investment may be impaired. If an indication exists, the Corporation estimates the recoverable amount of the investment.

An indicator of impairment may exist if there is a measurable decrease in the estimated future cash flows from a financial asset since its initial recognition or a significant or prolonged decline in the fair value arises. Judgment is required in assessing whether an indicator of impairment exists.

Under IAS 39, when changes in fair values of an available-for-sale financial asset have been recognized in OCI, and there is objective evidence that the asset is impaired, the impairment loss that had been recognized in OCI is reclassified to net earnings as a reclassification adjustment, even though the financial asset has not been derecognized.

3. Accounting Changes

A. Current Accounting Changes

Adoption of New Accounting Standards
IFRS 15 *Revenue from Contracts with Customers*

In May 2014, the IASB issued IFRS 15 *Revenue from Contracts with Customers* (IFRS 15), which replaces existing revenue recognition guidance with a single comprehensive accounting model. The model specifies that an entity recognizes revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. In April 2016, the IASB issued an amendment to IFRS 15 to clarify the identification of performance obligations, principal versus agent considerations, licenses of intellectual property, and transition practical expedients. IFRS 15, including the amendment, is required to be adopted either retrospectively or using a modified retrospective approach for annual periods beginning on or after Jan. 1, 2018, with earlier adoption permitted.

The Corporation has adopted IFRS 15 with an initial adoption date of Jan. 1, 2018. As a result, the Corporation has changed its accounting policy for revenue recognition. Full details on the Corporation's accounting policy for revenue can be found in Note 2A.

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* (IAS 18). Refer to Note 2A(III) for the accounting policy for prior years.

IFRS 9 *Financial Instruments*

Effective Jan. 1, 2018, the Corporation 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, the Corporation has elected not to restate prior periods. The cumulative impact of adopting IFRS 9 was recognized at the initial date of application. Comparative period information is reported under IAS 39.

a. Classification and Measurement
The Corporation’s management reviewed and assessed its existing financial instruments as at Jan. 1, 2018. Based on the facts and circumstances that existed at that date and at the instrument's initial date of recognition, the following classification and measurements resulted:

Financial instrument	IAS 39 category	IFRS 9 classification
Cash and cash equivalents	Loans and receivables	Amortized cost
Restricted cash	Loans and receivables	Amortized cost
Trade and other receivables	Loans and receivables	Amortized cost
Risk management assets – derivatives held for trading	Held for trading	FVTPL
Risk management assets – derivatives designated as hedging instruments	Derivatives designated as hedging instruments	FVTOCI
Loan receivable (other assets)	Loans and receivables	Amortized cost
Investments in subsidiaries of TransAlta related to TEA – debt instrument	Loans and receivables	Amortized cost
Investments in subsidiaries of TransAlta related to TEA – equity instrument	Available-for-sale	FVTOCI
Investments in subsidiaries of TransAlta related to Wyoming Wind – debt instrument[(1)]	Available-for-sale	FVTPL
Accounts payable and accrued liabilities	Other financial liabilities	Amortized cost
Dividends payable	Other financial liabilities	Amortized cost
Risk management liabilities – derivatives held for trading	Held for trading	FVTPL
Risk management liabilities – derivatives designated as hedging instruments	Derivatives designated as hedging instruments	FVTOCI
Long-term debt	Other financial liabilities	Amortized cost

(1) Due to amendments to the tracking preferred shares in Oct. 2018, classification of the shares changed in the year. Refer to Note 9 for additional information.

The Corporation holds preferred shares of a subsidiary of TransAlta that provides dividends in reference to TEA and also holds preferred shares directly in the capital of TEA, which under IFRS 9 are required to be measured at FVTPL. The Corporation has irrevocably elected to present changes in fair value of these investments at FVTOCI. 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 AOCI, arising from the 2017 impairments on the preferred shares tracking adjusted TEA amounts. In addition, the opening balance sheet was adjusted by increasing the investment balance and reducing deficit, by $3 million, respectively, to measure the preferred shares of a subsidiary of TransAlta that provides dividends in reference to TransAlta Wyoming Wind LLC at FVTPL instead of cost, which was the best representation of fair value under IAS 39.

The classification and measurement requirements of IFRS 9 have had no other impacts to the Corporation's financial position, profit or loss, OCI or total comprehensive income upon initial application.

b. Impairment of Financial Assets
IFRS 9 introduces a new impairment model for financial assets. The assessment of the expected credit loss is based on historical data, and adjusted by forward-looking information. Forward-looking information utilized includes third-party default rates over time, dependent on credit ratings.

The Corporation's management reviewed and assessed its existing financial assets for impairment using reasonable and supportable information in accordance with the requirements of 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 and no loss allowance was recognized.

c. General Hedge Accounting
In accordance with IFRS 9's transition provisions for hedge accounting, the Corporation has applied the IFRS 9 hedge accounting requirements prospectively from the date of initial application on Jan. 1, 2018, and comparative figures have not been restated. The Corporation's qualifying hedging relationships under IAS 39 in place as at Jan. 1, 2018, also qualified for hedge accounting in accordance with IFRS 9, and were therefore regarded as continuing hedging relationships. No rebalancing of any of the hedging relationships was necessary on Jan. 1, 2018. As the critical terms of the hedging instruments match those of their corresponding hedged items, all hedging relationships continue to be effective under IFRS 9's effectiveness assessment.

The application of IFRS 9 hedge accounting requirements had no other impact on the results and financial position of the Corporation for the current or prior periods.

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. The Corporation has applied this requirement on Jan. 1, 2018, and has revised the comparative periods accordingly.

B. 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.

C. Comparative Figures

Certain comparative figures have been reclassified to conform to the current period's presentation. These reclassifications did not impact previously reported net earnings.

4. Significant Events

A. 2018

Expansion of the Kent Hills Wind Facility

On Oct. 19, 2018, the Corporation announced the commissioning of the 17.25 MW Kent Hills 3 expansion, bringing the total generating capacity of the wind facility to 167 MW. Natural Forces Technologies Inc., a wind-energy developer based in Atlantic Canada, co-developed and co-owns the wind farm, which is under a 17-year PPA with New Brunswick Power Corporation ("NB Power"). 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 Kent Hills 3 wind projects.

Acquisition of Three Renewables Assets

On May 31, 2018, the Corporation acquired 100 per cent of the equity interests in three entities from TransAlta, which resulted in, 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 the Corporation. IFRS 3 *Business Combinations* requires fair value accounting for acquisitions and excludes from its requirements a combination of entities or businesses under common control. Under established IFRS practice, common control transactions are generally accounted for using either the fair value or the pooling of interest (book value) methods of accounting. The Corporation applied the pooling of interest method to account for the acquisition, consistent with its previously chosen accounting policies. 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. As a result, a $3 million adjustment to equity was recognized in deficit.

On May 31, 2018, the Corporation 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. The Corporation's investment consists of tracking preferred shares of a subsidiary of TransAlta that provides the Corporation with an economic interest based on cash flows broadly equal to the underlying net distributable profits (after satisfaction of tax equity and debt obligations) of the entities that own Lakeswind wind farm and Mass Solar.

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.

Acquisition of US Wind Projects

On Feb. 20, 2018, the Corporation announced it 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 Mar. 1, 2018, whereas 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, the Corporation expects to fund the total estimated construction and acquisition costs for the Big Level and Antrim wind projects of US$240 million through the subscription of tracking preferred shares or interest-bearing promissory notes. These cost are expected to be funded using existing liquidity and tax equity.

On Apr. 20, 2018, the Corporation 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 preferred shares will pay quarterly dividends based on the pre-tax net earnings of the US Wind Projects, when commissioned.

On Sept. 28, 2018, the Corporation 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. The note bears 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 months from the date of issuance of the note.

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 note bears interest at the US LIBOR one month rate plus 170 basis points per annum. The outstanding principal balance 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) 33 months from the date of issuance of the note.

Common Share Issuance

On June 22, 2018, the Corporation 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 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 of Directors approved the implementation of a dividend reinvestment plan ("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 Corporation does not intend to participate in the DRIP.

B. 2017

South Hedland Power Station and Conversion of Class B Shares

On July 28, 2017, commissioning of the South Hedland Power Station was achieved and on Aug. 1, 2017, the Corporation converted the 26.1 million Class B Shares held by TransAlta into 26.4 million common shares. The Class B shares were converted at a ratio greater than 1:1 because the construction and commissioning costs for the project were below the referenced costs agreed upon in the amended contribution agreement, dated July 26, 2017, between the Corporation and TransAlta. On the conversion date, the carrying amount of the Class B shares liability of $385 million was derecognized and the common shares issued on conversion were recognized at that same amount.

On Aug. 1, 2017, Fortescue Metals Group Ltd. (“FMG”) notified TransAlta that in its view the South Hedland Power Station had not yet satisfied the requisite performance criteria under the South Hedland PPA between FMG and TransAlta. In TransAlta’s view, all conditions to establish commercial operations have been fully satisfied under the terms of the South Hedland PPA. Horizon Power, the local utility and offtaker of the majority of the generation of the facility, has confirmed and not disputed commercial operation. On Nov. 13, 2017, FMG issued a notice purporting to terminate the PPA. TransAlta's view is that the contract termination is invalid.

Kent Hills Wind Project

During the second quarter of 2017, the Corporation entered into a long-term contract with NB Power for the sale of all power generated by an additional 17.25 MW of capacity from the Kent Hills wind 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 Kent Hills 3 wind projects. This was an expansion project of the Corporation's existing Kent Hills wind farm, increasing the total operating capacity of the facility to approximately 167 MW.

Closing of $260 Million Project Financing

On Oct. 2, 2017, the Corporation closed an approximate $260 million bond offering, which is secured by, among other things, a first ranking charge over all assets of Kent Hills Wind LP, a subsidiary of the Corporation. The bonds are amortizing and bear interest at an annual rate of 4.454 per cent, payable quarterly and maturing Nov. 30, 2033. Proceeds from the financing were used to partly fund the expansion at Kent Hills, with the remaining proceeds, net of $30 million held in a construction reserve account, being distributed to each partner in the Kent Hills wind project.

Syndicated Credit Facility
On July 24, 2017, the Corporation entered into a syndicated credit agreement giving the Corporation access to $500 million in direct borrowings or letters of credit. The agreement is fully committed for four years, expiring in 2022. The facility is subject to a number of customary covenants and restrictions in order to maintain access to the funding commitments. In conjunction with entering into the new credit agreement, the $350 million credit facility provided by TransAlta was cancelled.

Repurchase of Solomon Power Station
On Aug. 1, 2017, TransAlta received notice of FMG's intention to repurchase the Solomon Power Station from TEC Pipe Pty Ltd., a wholly owned subsidiary of TransAlta, for approximately US$335 million. The Corporation has an economic interest in the cash flows from the Solomon Power Station (see Note 9 for additional information). FMG completed its acquisition of the Solomon Power Station on Nov. 1, 2017, and TEC Pipe Pty Ltd. received approximately US$325 million from FMG for the repurchase. FMG has held back the balance from the purchase price. It is TransAlta's view that this should not be held back and TransAlta is taking action to recover all, or a significant portion, of this amount from FMG.

TEA used part of the proceeds received from the termination of the Solomon PPA to redeem $179 million of the Mandatory Redeemable Preferred Shares ("MRPS") and $39 million of the preferred shares of TEA (see Note 9 for additional information). In addition, the Corporation received a loan in the amount of AUD199 million from TEA. In 2018, the Corporation repaid the TEA loan.

The Corporation also utilized the proceeds to repay the credit facility used to fund the development of the South Hedland Power Station and to repay the $215 million convertible debenture issued to TransAlta.

Early Redemption of Debentures
On Sept. 27, 2017, the Corporation provided notice of the early redemption of the unsecured debentures issued by its subsidiary, Canadian Hydro Developers, Inc., on Oct. 12, 2017, with a weighted average interest rate of 6.3 per cent. The debentures were scheduled to mature in June 2018. On Oct. 12, 2017, the Corporation redeemed the unsecured debentures for $201 million, comprised of the principal of $191 million, an early redemption premium of $6 million and accrued interest of $4 million. A $6 million early redemption premium was recognized and was included in net interest expense.

5. Revenue from Contracts with Customers

A. Disaggregation of Revenue from Contracts with Customers

The majority of the Corporation's revenues are derived from the sale of electricity, capacity and Green Attributes, which the Corporation disaggregates into the following groupings for the purpose of determining how economic factors affect the recognition of revenue.

Year ended Dec. 31, 2018	Canadian Wind	Canadian Hydro	Canadian Gas	Total
Revenue from contracts with customers	197	18	198	413
Other revenue	2	—	(1)	1
Revenues	**199**	**18**	**197**	**414**
Timing of revenue recognition:				
At a point in time	12	—	—	12
Over time	185	18	198	401
Revenue from contracts with customers	197	18	198	413

B. Remaining Performance Obligations

As required by the new revenue standard, the Corporation is required to disclose the aggregate amount of the transaction price allocated to remaining performance obligation (contract revenues that have not yet been recognized) for contracts in place at the end of the reporting period. The following disclosures exclude revenues related to contracts that qualify for the following practical expedients:

- The Corporation recognizes revenue from the contract in an amount that is equal to the amount invoiced where the amount invoiced represents the value to the customer of the service performed to date. Certain of the Corporation's contracts at most of its wind and hydro facilities qualify for this practical expedient. For these contracts, the Corporation is not required to disclose information about the remaining unsatisfied performance obligations.
- Contracts with an original expected duration of less than 12 months.

Additionally, in some of the Corporation's contracts, elements of the transaction price are considered constrained, such as for variable revenues dependent upon future production volumes that are driven by customer or market demand or market prices that are subject to factors outside the Corporation's influence. Future revenues that are related to constrained variable consideration are not included in the disclosure of remaining performance obligations until the constraints are resolved.

As a result, the amounts of future revenues disclosed below represent only a portion of future revenues that are expected to be realized by the Corporation from its contractual portfolio.

Canadian Wind

At Dec. 31, 2018, the Corporation had a long-term contract with a customer to deliver electricity and the associated renewable energy credits from one wind farm, for which the invoice practical expedient is not applied. The PPA generally requires all available generation to be provided to the customer at fixed prices, with certain pricing subject to annual escalations for inflation. The Corporation expects to recognize such amounts as revenue as it delivers electricity over the remaining terms of the contracts, until 2024. Electricity delivered is ultimately dependent upon wind resource, which is outside of the Corporation's control. Amounts delivered, and therefore revenue recognized, in the future will vary. These variable revenues for electricity delivered are considered to be fully constrained, and will be recognized at a point in time as the performance obligation, the delivery of electricity, is satisfied. Accordingly, these revenues are excluded from these disclosures.

The Corporation has contracts to sell renewable energy certificates generated at certain wind facilities and expects to recognize revenues as it delivers the renewable energy certificates to the purchaser over the remaining terms of the contracts, from 2019 through 2024. Estimated future revenues related to the remaining performance obligations for these contracts as of Dec. 31, 2018, are approximately $9 million, of which the Corporation expects to recognize between approximately $1 million to $2 million annually through to contract expiry.

The practical expedient allowing the recognition of revenue from the contract in an amount that is equal to the amount invoiced is applied to wind energy contracts in Ontario, New Brunswick and Quebec; accordingly, disclosures related to remaining performance obligations are not provided for these contracts.

Canadian Hydro

The practical expedient allowing the recognition of revenue from the contract in an amount that is equal to the amount invoiced is applied to all hydro energy contracts in Ontario and British Columbia; accordingly, disclosures related to remaining performance obligations are not provided for these contracts.

Canadian Gas

At Dec. 31, 2018, the Corporation has contracts with customers to deliver energy services from its gas plant in Ontario. The contracts all consist of a single performance obligation requiring the Corporation to stand-ready to deliver electricity and steam. The following is a summary of the key terms:

The energy supply agreements require specified amounts of steam to be delivered to each customer, and have pricing terms that include fixed and variable charges for electricity, capacity and steam, as well as a true-up based on contractual minimum volumes of steam. The steam reconciliation is based on an estimate of the customer's steam volume taken and the contractual minimum volume, and various factors including the annual average market price of electricity and the average locally posted and index prices of natural gas, including transportation. For steam volumes not taken by the customer, a revenue-sharing mechanism provides for sharing of revenues earned by the Corporation using that steam to generate and sell electricity. Capacity and electricity pricing vary from contract to contract and are subject to annual indexation at varying rates. Electricity and steam delivered is ultimately dependent upon customer requirements, which is outside of the Corporation's control, These variable revenues under the contracts are considered to be fully constrained. Accordingly, these revenues are excluded from these disclosures. The Corporation expects to recognize revenue as it delivers electricity and steam until the completion of the contract in late 2022.

At the same gas plant, the Corporation has a contract with the local power authority with fixed capacity charges that are adjusted for seasonal fluctuations, steam demand from the plant's other customers, and for deemed net revenue related to production of electricity into the market. As a result, revenues recognized in the future will vary as they are dependent upon factors outside of the Corporation's control and are considered to be fully constrained. Accordingly, these revenues are excluded from these disclosures. The Corporation expects to recognize such revenue as it stands ready to deliver electricity until the completion of the contract term at Dec. 31, 2025.

6. Government Incentives

Certain of the Corporation's wind and hydro facilities are eligible to receive incentives under the Wind Power Production Incentive or the ecoENERGY for Renewable Power incentive programs sponsored by the Canadian federal government to encourage the development of clean power generation projects in Canada. Qualifying facilities receive specified incentive payments for every kilowatt hour of energy production for a period of up to 10 years from the date of commissioning.

7. Lease Revenue

Several of the Corporation's wind and hydro PPAs for the sale of electrical energy meet the criteria of operating leases, whereby the Corporation is the lessor and the customer is the lessee. Revenues earned under these contracts are reported as lease revenue.

8. Expenses by Nature

Expenses classified by nature are as follows:

Year ended Dec. 31	2018		2017	
	Fuel, royalties and other costs	**Operations, maintenance and administration**	Fuel, royalties and other costs	Operations, maintenance and administration
Fuel	**81**	**—**	81	—
Royalties and land lease costs	**14**	**—**	14	—
Transmission tariffs	**3**	**—**	2	—
Contracted operating expenses	**—**	**40**	—	43
Other operating expenses	**—**	**46**	—	40
Total	**98**	**86**	97	83

9. Finance Income Related to Subsidiaries of TransAlta

Finance income related to subsidiaries of TransAlta is comprised of income from various interests that in aggregate and over time indirectly provide the Corporation with cash flows based on those of TEA and TransAlta Wyoming Wind, and from May 31, 2018, Lakeswind and Mass Solar (see Note 4).

Year ended Dec. 31	2018	2017
Dividend income from investment in preferred shares of TEA	**6**	5
Fee income from indirect guarantee of TEA obligations	**11**	22
Dividend income from investment in preferred shares tracking adjusted TEA amounts	**101**	6
Finance income related to TEA	**118**	33
Dividend income from investment in preferred shares tracking earnings and distributions of Wyoming Wind	**11**	6
Total finance income	**129**	39
Finance income related to TEA	**118**	33
Interest income from investment in mandatory redeemable preferred shares of TEA[1]	**42**	47
Total income related to TEA	**160**	80

(1) Effective Jan. 1, 2018, interest income is required to be presented as a separate line item on the statements of earnings (see Note 3).

Finance income is recognized in cash flows from operating activities in the Consolidated Statements of Cash Flows. Foreign exchange gains and losses related to monetary investments in subsidiaries of TransAlta are recognized within foreign exchange gain (loss) in the Consolidated Statements of Earnings.

Interest income from the investment in MRPS and TEA preferred shares represents income realized from the average coupon rates. The Corporation also receives a fee for providing an indemnity in respect of guarantees of TransAlta disclosed in Note 24. Ultimately, these cash flows are deducted from the TEA amounts that form the basis for dividends payable to the Corporation from TEA. That basis is broadly comprised of earnings before interest, income taxes, depreciation and amortization ("EBITDA"), plus net cash interest, less cash taxes, sustaining capital expenditures, and other adjustments. Income from all Australian sources is fixed in Canadian dollars at the following exchange rates:

	2017	**2018**	**2019**	**Thereafter until June 30, 2020**
Income denominated in AUD	0.96	0.94	0.94	0.94
Income denominated in USD	1.24	1.24	1.24	1.20

A summary of investments in subsidiaries of TransAlta is as follows:

As at	Dec. 31, 2018	Dec. 31, 2017
Investment in MRPS	**489**	601
Investment in preferred shares tracking adjusted TEA amounts	**637**	616
Investment in preferred shares of TEA	**88**	94
Total investments in subsidiaries related to TEA	**1,214**	1,311
Investment in preferred shares tracking earnings and distributions of Big Level	**42**	—
Investment in preferred shares tracking earnings and distributions of Mass Solar	**69**	—
Investment in preferred shares tracking earnings and distributions of Lakeswind	**33**	—
Investment in preferred shares tracking earnings and distributions of Wyoming Wind	**137**	126
Total investments in subsidiaries of TransAlta	**1,495**	1,437

Investment in Subsidiaries of TransAlta Related to TEA

Changes in the investments in subsidiaries of TransAlta that relate to TEA are detailed as follows:

Year ended Dec. 31, 2018	MRPS[1]	Preferred shares tracking adjusted TEA amounts	Preferred shares of TEA[2]	Total
Investment balance at Dec. 31, 2017	601	616	94	1,311
Redemption[3]	(107)	—	—	(107)
Unrealized foreign exchange losses recognized in earnings	(5)	—	—	(5)
Return of capital[4]	—	(13)	—	(13)
Net change in fair value recognized in OCI	—	34	(6)	28
Investment balance at Dec. 31, 2018	**489**	**637**	**88**	**1,214**

(1) Principal amount as at Dec. 31, 2018, and Dec. 31, 2017, was AUD509 million and AUD620 million, respectively.
(2) Principal amount as at Dec. 31, 2018, and Dec. 31, 2017, was AUD86 million and AUD86 million, respectively.
(3) See Note 4.
(4) See Note 2 (Q).

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). In January 2019, TEA redeemed the remaining outstanding balance of the MRPS (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.

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. 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.

Year ended Dec. 31, 2017	MRPS[1]	Preferred shares tracking adjusted TEA amounts	Preferred shares of TEA[2]	Total
Investment balance at Dec. 31, 2016	613	841	52	1,506
Additional investments	161	—	72	233
Redemption[3]	(179)	—	(39)	(218)
Unrealized foreign exchange gains recognized in earnings	6	—	—	6
Return of capital[4]	—	(42)	—	(42)
Impairment of investment	—	(137)	—	(137)
Net change in fair value recognized in OCI	—	(46)	9	(37)
Investment balance at Dec. 31, 2017	601	616	94	1,311

(1) Principal amount as at Dec. 31, 2017, and Dec. 31, 2016, was AUD620 million and AUD641 million, respectively.
(2) Principal amount as at Dec. 31, 2017, and Dec. 31, 2016, was AUD86 million and AUD54 million, respectively.
(3) See Note 4.
(4) See Note 2 (Q).

As a result of FMG's determination to repurchase the Solomon Power Station, the Corporation recognized an impairment during the third quarter of 2017 on the preferred shares tracking adjusted TEA amounts in the amount of $114 million, under IAS 39. While the Corporation's economic interest in the Australian business is based on the net underlying cash flows of the Australian assets, the fair value of the investment in the preferred shares tracking adjusted TEA amounts does not depreciate in line with the assets. The fair value is based on the underlying cash flows of the Australian business and is impacted by foreign currency and discount rate assumptions. Over time, the accounting value of the preferred shares tracking adjusted TEA amounts was also increased to reflect lower discount rates. Since acquiring the investment in 2015, the Solomon Power Station has generated over $100 million of free cash flow.

On Nov. 13, 2017, FMG issued a notice purporting to terminate the South Hedland PPA. Due to the purported termination, which, in TransAlta's view is invalid, the Corporation revised the expected underlying cash flows of the preferred shares tracking adjusted TEA amounts based upon the best estimates of recovery through legal resources and other means. As a result, in the fourth quarter of 2017, the Corporation recognized an impairment on the preferred shares tracking adjusted TEA amounts of $23 million, under IAS 39.

The MRPS are non-voting and rank subordinate to all present and future secured and unsecured indebtedness of TEA, but senior to all other classes of issued and outstanding shares in the capital of TEA. The Corporation is entitled to receive cash dividends on the MRPS. The MRPS are subject to mandatory redemption in whole, on their maturity date or earlier at TEA's option. The MRPS are denominated in Australian dollars. The MRPS are classified as and carried at amortized cost.

The Canadian-dollar-denominated preferred shares tracking adjusted TEA amounts are issued by another subsidiary of TransAlta that provide cumulative variable cash dividends, when declared, that are broadly equal to the underlying net distributable profits of TEA. The Corporation has measured the tracking preferred shares at FVTOCI.

The preferred shares of TEA are non-voting and rank subordinate to all present and future secured and unsecured indebtedness of TEA, subordinate to the MRPS, but senior to all other classes of issued and outstanding shares in the capital of TEA. The dividends are non-cumulative and payable quarterly at a rate of 7.4 per cent per annum. The preferred shares have been measured at FVTOCI.

The Corporation estimated the fair value of the preferred shares tracking adjusted TEA amounts utilizing significant unobservable inputs such as TEA's long-range forecast as part of a discounted cash flow model, as outlined in Note 13(B)(I)(c). Key assumptions in respect of significant unobservable inputs used in the fair value measurement include the discount rate and the quarterly cash flows from the instrument and guarantee fees. The forecast extends over 29 years, which is consistent with the expected cash flow periods. The table below summarizes quantitative data regarding these unobservable inputs:

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 above 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.

Investments in a Subsidiary of TransAlta Related to Wyoming Wind, Big Level, Lakeswind and Mass Solar

The investment in preferred shares of a subsidiary of TransAlta related to Wyoming Wind provides cumulative variable cash dividends, when declared, that are broadly equal to the pre-tax earnings and distributable profits of Wyoming Wind. The preferred shares were accounted for as FVTPL from Jan. 1, 2018 to Sept. 30, 2018; however, in the comparative period they were accounted for at cost.

During the second quarter, the Corporation acquired an economic interest in the Big Level wind development project. The Corporation's investment consists of tracking preferred shares in a subsidiary of TransAlta that provides the Corporation with an economic interest based on cash flows broadly equal to the underlying net distributable profits of the entities that own Big Level. The Corporation has irrevocably elected to present changes in fair value of this investment as FVTOCI so as to not distort net earnings with unrealized changes in fair value, which can be temporary in nature and may arise due to factors not specifically related to the underlying future cash flows of the investments.

In addition, during the second quarter, the Corporation acquired an economic interest in each of the Lakeswind wind farm and the Mass Solar solar projects from TransAlta Corporation. The Corporation's investments consist of tracking preferred shares in a subsidiary of TransAlta that provide the Corporation with economic interests based on cash flows broadly equal to the underlying net distributable profits (after satisfaction of tax equity obligations) of each of the entities that own Lakeswind and Mass Solar. The investments were accounted for as FVTPL from issuance to Sept. 30, 2018.

On Oct. 1, 2018, TransAlta's subsidiary that issued the Wyoming Wind, Lakeswind and Mass Solar tracking preferred shares amended the rights, privileges, restrictions and conditions of these shares. As a result of these amendments, prospectively from Oct. 1, 2018, the Corporation irrevocably elected to account for the shares as at FVTOCI, with changes in fair value and foreign exchange recognized in OCI as opposed to in net earnings. The Corporation has irrevocably elected to present changes in fair value of this investment as FVTOCI so as to not distort net earnings with unrealized changes in fair value, which can be temporary in nature and may arise due to factors not specifically related to the underlying future cash flows of the investments.

Changes in the investment balances are detailed as follows:

For the year ended Dec. 31	2018					2017
	Preferred shares tracking earnings and distributions of Wyoming Wind	Preferred shares tracking earnings and distributions of Big Level	Preferred shares tracking earnings and distributions of Lakeswind	Preferred shares tracking earnings and distributions of Mass Solar	Total	Preferred shares tracking earnings and distributions of Wyoming Wind
Investment balance, beginning of year	126	—	—	—	126	139
IFRS 9 recognition at fair value	3	—	—	—	3	—
Adjusted balance, Jan. 1, 2018	129	—	—	—	**129**	—
Investment (redemption)[1]	—	41	30	69	**140**	(3)
Return of capital	(2)	—	—	(2)	**(4)**	—
Foreign exchange gain (loss) and changes in fair value recognized in earnings	7	—	1	(3)	**5**	(10)
Unrealized foreign exchange gain and changes in fair value recognized in OCI	3	1	2	5	**11**	—
Investment balance, end of year	**137**	**42**	**33**	**69**	**281**	126

(1) Big Level investment includes acquisition costs represented by a US$2 million development fee paid to TransAlta. Principal amounts as at Dec. 31, 2018, were US $100 million for Wyoming Wind, US$31 million for Big Level, US$23 million for Lakeswind and USD$52 million for Mass Solar. Principal amount as at Dec. 31, 2017 was US$100 million for Wyoming Wind.

The Corporation estimated the fair value of the preferred shares tracking earnings and distributions of Wyoming Wind, Big Level, Lakeswind and Mass Solar utilizing significant unobservable inputs such as long-range forecasts as part of a discounted cash flow model, as outlined in Note 13(B)(I)(c). The forecasts extend over the expected operating lives of the underlying facilities, which range from 16 years to 32 years. Key assumptions in respect of significant unobservable inputs used in the fair value measurements include the discount rate and the quarterly cash flows from the instruments. The table below summarizes quantitative data regarding these unobservable inputs 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 above 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.

10. Interest Income and Interest Expense

The components of interest income are as follows:

Year ended Dec. 31	2018	2017
Interest income from investment in MRPS of TEA (Note 9)	**42**	47
Other interest income	**3**	1
Interest income	**45**	48

The components of interest expense are as follows:

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 net interest[1]	**8**	4
Accretion of provisions (Note 18)	**3**	2
Interest expense	**51**	59

(1) Consists of letters of credit and guarantees, credit facility commitments, other interest and banking fees (net of capitalized interest). For the year ended Dec. 31, 2018, interest on letters of credit and guarantees pledged by TransAlta was $1 million (2017 - $2 million). For the year ended Dec. 31, 2018, other interest includes approximately $4 million of costs that were written off due to project-level financing that is no longer practicable and $1 million of transaction costs relating to the acquisitions of Kent Breeze, Lakeswind and Mass Solar (see Note 3).
(2) See Note 3(A) for information on prior period restatement.

11. Income Taxes

A. Consolidated Statements of Earnings

I. Rate Reconciliation

Year ended Dec. 31	2018	2017
Earnings before income taxes	**276**	51
Net earnings attributable to non-controlling interests	**(5)**	(4)
Adjusted earnings before income taxes	**271**	47
Statutory Canadian federal and provincial income tax rate (%)	**26.0**	26.0
Expected income tax expense	**70**	12
Increase (decrease) in income taxes resulting from:		
Non-taxable (deductible) capital (gains) losses	**(1)**	1
Adjustments in respect of deferred income tax of previous years	**—**	2
Change in fair value of Class B shares	**—**	(1)
Investment in subsidiary	**1**	36
Finance and interest income not subject to tax	**(42)**	(17)
Other	**7**	5
Income tax expense	**35**	38

II. Components of Income Tax Expense

The components of income tax expense (recovery) are as follows:

Year ended Dec. 31	2018	2017
Current income tax expense	**6**	6
Adjustments in respect of deferred income tax of previous years	**—**	2
Deferred income tax expense related to the origination and reversal of temporary differences	**29**	30
Income tax expense	**35**	38

Year ended Dec. 31	2018	2017
Current income tax expense	**6**	6
Deferred income tax expense	**29**	32
Income tax expense	**35**	38

B. Consolidated Statements of Changes in Equity

The aggregate current and deferred income tax related to items charged or credited to equity is as follows:

Year ended Dec. 31	2018	Component of equity
Income tax recovery related to:		
Investments in subsidiaries of TransAlta[1]	**1**	OCI
Common share issue costs	**2**	Common shares
Income tax recovery reported in equity	**3**	

(1) Relates to Big Level transaction costs (see Note 9).

C. Components of Net Deferred Income Tax Liability

Significant components of the Corporation's net deferred income tax (asset) liability are as follows:

As at Dec. 31	2018	2017
Net operating and capital loss carryforwards[1]	**(101)**	(128)
Property, plant and equipment	**343**	352
Foreign exchange differences on US-denominated debt	**(1)**	1
Risk management assets and liabilities, net	**—**	(2)
Net deferred income tax liability	**241**	223

1) Net operating losses expire between 2027 and 2038.

As at Dec. 31	2018	2017
Deferred income tax assets[1]	**(17)**	(9)
Deferred income tax liabilities	**258**	232
Net deferred income tax liability	**241**	223

(1) The deferred income tax assets presented on the Consolidated Statements of Financial Position are recoverable based on estimated future earnings and tax planning strategies. The assumptions used in the estimate of future earnings are based on the Corporation's long-range forecasts.

12. Non-Controlling Interest

The Corporation's non-controlling interest is comprised of Natural Forces Technologies Inc.'s 17 per cent interest in Kent Hills Wind LP, which owns the Kent Hills (1, 2 and 3) wind facilities. Summarized financial information relating to Kent Hills Wind LP is as follows:

Year ended Dec. 31	2018	2017
Results of operations		
Revenues	**45**	42
Net earnings and total comprehensive income	**28**	26

As at Dec. 31	2018	2017
Financial position		
Current assets	**20**	43
Long-term assets	**471**	425
Current liabilities	**(12)**	(8)
Long-term liabilities	**(241)**	(251)
Total equity	**(238)**	(209)

13. Financial Instruments and Risk Management

A. Financial Assets and Liabilities – Classification and Measurement

The following table outlines the carrying amounts and classifications of financial assets and liabilities:

Carrying value as at Dec. 31, 2018

	Derivatives - FVTPL	Amortized cost	Fair value through OCI	Total
Financial assets				
Cash and cash equivalents	—	73	—	**73**
Accounts receivable	—	115	—	**115**
Restricted cash	—	31	—	**31**
Investments in subsidiaries of TransAlta	—	489	1,006	**1,495**
Other assets (loans receivable)[1]	—	60	—	**60**
Financial liabilities				
Accounts payable and accrued liabilities	—	47	—	**47**
Dividends payable	—	62	—	**62**
Risk management liabilities (current)	1	—	—	**1**
Debt[1]	—	932	—	**932**

(1) Includes current portion and long-term portion.

Carrying value as at Dec. 31, 2017[1]

	Derivatives classified as held for trading	Loans and receivables	Available-for-sale[2]	Other financial liabilities	Total
Financial assets					
Cash and cash equivalents	—	20	—	—	20
Accounts receivable[3]	—	116	—	—	116
Risk management assets (current)	1	—	—	—	1
Restricted cash	—	30	—	—	30
Investments in subsidiaries of TransAlta	—	601	836	—	1,437
Other assets (loans receivable)	—	33	—	—	33
Financial liabilities					
Accounts payable and accrued liabilities	—	—	—	41	41
Dividends payable	—	—	—	59	59
Risk management liabilities (current)	4	—	—	—	4
Debt[4]	—	—	—	1,043	1,043

(1) Classifications as per IAS 39 Financial Instruments: Recognition and Measurement.
(2) Includes investment in TransAlta Wyoming Wind LLC, which is measured at cost of $126 million (US$100 million) (see section B(III) of Note 13).
(3) Includes current portion of other assets (loans receivable).
(4) Includes current portion and long-term portion.

B. Fair Value of Financial Instruments

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.

The Corporation's financial instruments measured at fair value 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.

I. 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 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, 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. Additional disclosures on these measurements are presented in Note 9.

II. Commodity and Other Risk Management Assets and Liabilities

The Corporation's commodity-based risk management assets and liabilities relate to trading activities and certain contracting activities. Other risk management assets and liabilities include risk management assets and liabilities that are used in managing foreign-denominated receipts and expenditures, capital project expenditures and debt. To the extent applicable, changes in net risk management assets and liabilities for non-hedge positions are reflected within net earnings.

The following table summarizes the net risk management assets (liabilities):

	Cash flow hedges	Non-hedges	
	Level II	Level II	Total
Net risk management assets (liabilities) at Dec. 31, 2018	**—**	**(1)**	**(1)**
Net risk management assets (liabilities) at Dec. 31, 2017	—	(3)	(3)

III. Financial Instruments – Not Measured at Fair Value
The carrying value of cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued liabilities, and dividends payable approximates their fair value at the Consolidated Statement of Financial Position date due to their short-term nature.

The fair value of financial instruments not measured at fair value is as follows:

As at	Dec. 31, 2018		Dec. 31, 2017	
	Fair value Level II	**Carrying value**	Fair value Level II	Carrying value
MRPS	**489**	**489**	605	601
Loans receivable[(1)]	**60**	**60**	38	38
Long-term debt[(1)]	**916**	**932**	1,019	1,043

(1) Includes current portion.

The fair value of the MRPS is determined using a discounted cash flow methodology based on inputs including interest and currency rates and a discount rate reflecting the risks specific to TEA. The fair value of the long-term debt is determined by calculating an implied price based on a current assessment of the yield to maturity. The fair values of the loans receivable discussed in Note 16 approximate their carrying values.

IV. Non-Hedges
Commodity
The Corporation enters into various derivative transactions as well as other contracting activities that do not qualify for hedge accounting. As a result, the related assets and liabilities are classified as FVTPL. Changes in the fair value of these derivatives are reported in earnings in the period the change occurs.

The fair value liability associated with commodity activities as at Dec. 31, 2018, is $1 million (2017 - $1 million). The outstanding commodity derivative instruments are as follows:

As at Dec. 31	2018		2017	
Type (thousands)	**Notional amount sold**	**Notional amount purchased**	Notional amount sold	Notional amount purchased
Electricity *(MWh)*	**549**	**24**	365	—
Natural gas *(GJ)*	**1,506**	**4,340**	—	899
Emissions *(tonnes)*	**4**	**3**	4	—

C. Nature and Extent of Risks Arising from Financial Instruments and Derivatives

I. Credit Risk
Credit risk is the risk that customers or counterparties will cause a financial loss for the Corporation by failing to discharge their obligations, and the risk to the Corporation associated with changes in creditworthiness of entities with which commercial exposures exist. The Corporation actively manages its exposure to credit risk by assessing the ability of counterparties to fulfil their obligations under the related contracts before entering into such contracts. The Corporation makes detailed assessments of the credit quality of all counterparties and, where appropriate, obtains corporate guarantees, cash collateral, letters of credit or third-party insurance to support the ultimate collection of these receivables. For commodity trading, the Corporation sets strict credit limits for each counterparty and monitors exposures on a daily basis. If credit limits are exceeded, the Corporation will request collateral from the counterparty or halt trading activities with the counterparty.

The Corporation has limited direct exposure to credit risk, as the majority of its power sales contracts are with TransAlta, governments and large utility customers with extensive operations. Historically, the Corporation has not had collection issues associated with its receivables and the aging of receivables is reviewed on a regular basis to ensure the timely collection of amounts owing to the Corporation.

The Corporation's maximum exposure to credit risk at Dec. 31, 2018, without taking into account collateral held or right of set-off, and including indirect exposures arising from the Corporation's investments in subsidiaries of TransAlta discussed in Note 9, is detailed as follows:

	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, risk management assets and loans 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.

The Corporation uses external credit ratings, as well as internal ratings in circumstances where external ratings are not available, to establish credit limits for counterparties. In certain cases, the Corporation will require security instruments such as parental guarantees, letters of credit, cash collateral or third-party credit insurance to reduce overall credit risk.

II. Other Market Risks
The Corporation is exposed to market risks based on changes in the fair value of the preferred shares of TEA, the preferred shares tracking adjusted TEA amounts and the preferred shares tracking earnings and distributions of Wyoming Wind, Big Level, Lakeswind and Mass Solar. A one per cent increase (decrease) in the value of these securities would result in a $10 million increase (decrease) in OCI as at Dec. 31, 2018.

III. Liquidity Risk
Liquidity risk relates to the Corporation's ability to access capital to be used in commodity hedging, capital projects, debt refinancing and general corporate purposes. The Corporation is focused on maintaining a strong financial position.

The Corporation manages its liquidity risk associated with its financial liabilities by utilizing cash flow generated from operations, capital markets and its third-party credit facility. The Corporation manages liquidity risk associated with its long-term debt through preparing and revising long-term external financing plans reflecting business plans and market availability of capital. The Corporation is in compliance with all financial covenants relating to its debt obligations as at Dec. 31, 2018.

The following table presents the contractual maturities of the Corporation's financial liabilities:

	2019	2020	2021	2022	2023	2024 and thereafter	Total
Accounts payable and accrued liabilities	47	—	—	—	—	—	**47**
Long-term debt	49	51	52	219	101	468	**940**
Net risk management liabilities	1	—	—	—	—	—	**1**
Interest on long-term debt[1]	37	35	32	31	21	87	**243**
Dividends payable	62	—	—	—	—	—	**62**
Total	**196**	**86**	**84**	**250**	**122**	**555**	**1,293**

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

IV. Foreign Currency Rate Risk
The Corporation has exposure to various currencies, such as the US and Australian dollars, as a result of investments in subsidiaries of TransAlta. The Corporation has mitigated the anticipated incremental exposure to the Australian- and US-dollar-denominated cash flows arising from the investment in the Australian Assets for the period through June 30, 2020, through the use of contractual agreements with TransAlta (see Note 9).

The possible effect on net earnings and OCI for the years ended Dec. 31, 2018 and 2017, due to changes in foreign exchange rates associated with financial instruments denominated in currencies other than the Corporation's functional currency is outlined below. The sensitivity analysis has been prepared using management's assessment that an average four cent (2017 – four cent) increase or decrease in these currencies relative to the Canadian dollar is a reasonable potential change over the next quarter.

As at Dec. 31	2018		2017	
Currency	**Net earnings increase[1]**	**OCI gain[1]**	Net earnings increase[1]	OCI gain[1]
USD	**4**	**8**	3	6
AUD	**18**	**20**	15	23
Total	**22**	**28**	18	29

(1) These calculations assume an increase in the value of this currency relative to the Canadian dollar. A decrease would have the opposite effect.

V. Interest Rate Risk

Interest rate risk arises if the future cash flows of a financial instrument fluctuate due to changes in market interest rates, which can impact the Corporation's borrowing costs. All of the Corporation's long-term debt, except its credit facility, as described in Note 17, is comprised of fixed interest rate debt. The Corporation's interest rate risk management strategy is to minimize cash flow volatility due to interest rate risk by ensuring its long-term debt has fixed interest rates, where possible.

VI. Commodity Price Risk

The Corporation's contractual profile minimizes commodity price risk as substantially all power is sold under long-term contracts.

14. Property, Plant and Equipment

The changes in the cost of major classes of PP&E and related accumulated depreciation are as follows:

	Hydro generation	Wind generation	Gas generation	Capital spares	Total
Cost					
As at Dec. 31, 2016	272	1,843	627	24	2,766
Additions[1]	2	18	16	2	38
Disposals and retirements	(1)	(2)	—	—	(3)
Revisions and additions to decommissioning costs	3	4	8	—	15
Transfers	—	—	(3)	(8)	(11)
As at Dec. 31, 2017	276	1,863	648	18	2,805
Additions	**5**	**36**	**19**	**3**	**63**
Acquisitions (Note 4)	**—**	**5**	**—**	**—**	**5**
Disposals and retirements	**(2)**	**—**	**(13)**	**—**	**(15)**
Revisions and additions to decommissioning costs	**(1)**	**(1)**	**(2)**	**—**	**(4)**
Transfers	**(3)**	**3**	**(4)**	**(8)**	**(12)**
As at Dec. 31, 2018	**275**	**1,906**	**648**	**13**	**2,842**
Accumulated depreciation					
As at Dec. 31, 2016	79	459	304	—	842
Depreciation	8	64	31	—	103
Disposals and retirements	—	(1)	—	—	(1)
Transfers	—	—	(8)	—	(8)
As at Dec. 31, 2017	87	522	327	—	936
Depreciation	**8**	**66**	**32**	**—**	**106**
Acquisitions (Note 4)	**—**	**1**	**—**	**—**	**1**
Disposals and retirements	**—**	**—**	**(9)**	**—**	**(9)**
Transfers	**(3)**	**—**	**(8)**	**—**	**(11)**
As at Dec. 31, 2018	**92**	**589**	**342**	**—**	**1,023**
Carrying amount					
As at Dec. 31, 2017	189	1,341	321	18	1,869
As at Dec. 31, 2018	**183**	**1,317**	**306**	**13**	**1,819**

(1) Wind generation additions include $9 million related to assets under construction.

The Corporation has transmission connection facilities for Kent Hills that are leased under a finance lease. The net carrying amount included in wind generation as at Dec. 31, 2018, was $4 million (2017 – $4 million).

15. Intangible Assets

A reconciliation of the changes in the carrying amount of intangible assets is as follows:

	Power sale contracts[1]	Software	Total
Cost			
As at Dec. 31, 2016	170	10	180
As at Dec. 31, 2017	170	10	180
Acquisition	**36**	**—**	**36**
Transfers	**3**	**2**	**5**
As at Dec. 31, 2018	**209**	**12**	**221**
Accumulated amortization			
As at Dec. 31, 2016	61	6	67
Amortization	8	2	10
As at Dec. 31, 2017	69	8	77
Amortization	**10**	**1**	**11**
Acquisition	**6**	**—**	**6**
Transfers	**3**	**—**	**3**
As at Dec. 31, 2018	**88**	**9**	**97**
Carrying amount			
As at Dec. 31, 2017	101	2	103
As at Dec. 31, 2018	**121**	**3**	**124**

(1) Comprised of values associated with certain power sale contracts that arose on TransAlta's acquisition of Canadian Hydro Developers and Kent Breeze, whereby the price of electricity to be delivered under the contracts exceeded the market price.

16. Other Assets

As at Dec. 31, 2018, the Corporation has a promissory note receivable in the amount of $23 million (US$17 million). On Sept. 28, 2018, the Corporation funded US$17 million of construction costs for the Big Level wind development project by subscribing for the interest-bearing promissory note issued by the project entity, a subsidiary of TransAlta (see Note 4). The note bears interest at the US LIBOR one month rate plus 170 basis points per annum. The outstanding principal and accrued interest are 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 months from the date of issuance of the note.

On Nov. 2, 2017, the Corporation's subsidiary, Kent Hills Wind LP, advanced $39 million of the Kent Hills Wind bond financing proceeds to its 17 per cent partner. The loan bears interest at 4.55 per cent, with interest payable quarterly, commencing on Dec. 31, 2017, is unsecured and matures on Oct. 2, 2022. The balance of the loan receivable is $37 million at Dec. 31, 2018 (2017 - $38 million). The current portion of nil (2017 - $5 million) is included in the current portion of other assets and the long-term portion of $37 million (2017 - $33 million) is included in other assets.

The loans receivable are classified as a debt instrument at amortized cost under IFRS 9, as the contractual cash flows are solely payments of principal and interest and the Corporation manages the loans receivable under a business model in which it will collect the contractual cash flows.

Other assets also includes long-term prepaid expenses of $5 million at Dec. 31, 2018 (2017 - $2 million).

17. Long-Term Debt

A. Amounts Outstanding

As at	Dec. 31, 2018			Dec. 31, 2017		
	Carrying value	**Face value**	**Interest[1]**	Carrying value	Face value	Interest[1]
Credit facility	**165**	**165**	**3.67%**	27	27	2.75%
Pingston bond	**45**	**45**	**2.95%**	45	45	2.95%
Melancthon Wolfe Wind bond	**332**	**336**	**3.83%**	367	372	3.83%
New Richmond bond	**140**	**142**	**3.96%**	146	148	3.96%
Kent Hills Wind bond	**250**	**252**	**4.45%**	256	258	4.45%
TEA loan[2]	**—**	**—**	**—**	196	196	2.80%
Canadian Assets working capital loan	**—**	**—**	**—**	6	6	—
	932	**940**		1,043	1,052	
Less: current portion	**(49)**	**(49)**		(250)	(250)	
Total long-term debt	**883**	**891**		793	802	

(1) Interest rate reflects the stipulated rate or the average rate weighted by principal amounts outstanding.
(2) AUD199 million as at Dec. 31, 2017.

Pingston bond bears interest at 2.953 per cent, with interest payable semi-annually and no principal repayments until maturity in May 2023, and is secured by the Pingston hydro facility, which at Dec. 31, 2018, had a carrying value of $45 million (2017 – $46 million).

Melancthon Wolfe Wind bond bears interest at 3.834 per cent, with principal and interest payable semi-annually in blended payments until maturity on Dec. 31, 2028, and is secured by a first ranking charge over all assets of the issuer, which primarily include the Melancthon and Wolfe Island wind farms, which at Dec. 31, 2018, had a combined carrying value of $573 million (2017 – $598 million).

New Richmond bond bears interest at 3.963 per cent, with principal and interest payable semi-annually in blended payments until maturity on June 30, 2032. The New Richmond bond is secured by a first ranking charge over all the assets of the issuer, New Richmond Wind LP, which primarily includes the New Richmond wind farm, which at Dec. 31, 2018, had a carrying value of $184 million (2017 – $193 million).

Kent Hills Wind bond issued in October 2017, bears interest at 4.454 per cent, with principal and interest payable quarterly in blended payments until maturity on Nov. 30, 2033. The Kent Hills Wind bond is secured by a first ranking charge over all of the assets of the issuer, Kent Hills Wind LP, which primarily includes the Kent Hills 1, 2 and 3 wind farms, which at Dec. 31, 2018, had a combined carrying value of $220 million (2017 – $201 million).

Credit Facility The Corporation has a $500 million committed syndicated credit facility, of which $335 million was available as at Dec. 31, 2018 (2017 – $473 million). The Corporation is in compliance with the terms of the credit facility.

The $500 million credit facility is the primary source for short-term liquidity after the cash flow generated from the Corporation's business. Interest rates on the credit facility vary depending on the type of borrowing selected: Canadian prime, bankers' acceptances, LIBOR or US base rate in accordance with a pricing grid that is standard for such a facility. The agreement is fully committed for four years, expiring in 2022.

TEA Loan On Nov. 9, 2017, the Corporation borrowed AUD199 million from TEA, which is a subsidiary of TransAlta. In 2018, the Corporation repaid the remaining balance of the TEA loan.

Canadian Assets Working Capital Loan On Nov. 30, 2016, the Corporation acquired the working capital and certain other capital spares and supplies of the Canadian Assets from a subsidiary of TransAlta, through the issuance of the Canadian Assets working capital loan. The balance of the loan was repaid in 2018.

B. Restrictions

The Melancthon Wolfe Wind, Pingston, New Richmond and Kent Hills Wind bonds are subject to customary financing conditions and covenants that may 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. The funds held in these entities 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 (2017 – $14 million).

C. Covenants

As of December 31, 2018, TransAlta Renewables and its subsidiaries were not in violation of any positive or negative covenants related to its debt.

D. Restricted Cash

Kent Hills Wind LP has $31 million (2017 – $30 million) of proceeds from the Kent Hills Wind bond financing that is held in a construction reserve account. The proceeds will be released from the reserve account upon certain conditions being met, which is estimated to occur in the first quarter of 2019.

Additionally, the Melancthon Wolfe Wind, New Richmond and Kent Hills bonds require that certain reserve accounts be established and funded through cash held on deposit and/or by providing Wind letters of credit. The Corporation has elected to utilize letters of credit to fund these reserve accounts.

E. Principal Repayments

	2019	2020	2021	2022	2023	2024 and thereafter	Total
Principal repayments	49	51	52	219	101	468	**940**

F. Letters of Credit

The Corporation has 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). Letters of credit are issued to counterparties under various contractual arrangements with the Corporation and certain subsidiaries of the Corporation. If the Corporation or its subsidiary does not perform under such contracts, the counterparty may present its claim for payment to the financial institution through which the letter of credit was issued. Any amounts owed by the Corporation or its subsidiaries under these contracts 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.

18. Decommissioning Provisions

The change in the decommissioning and restoration provision balance is outlined below:

	Decommissioning and restoration
Balance, Dec. 31, 2016	28
Liabilities settled	(1)
Accretion	2
Revisions in discount rates	15
Balance, Dec. 31, 2017	44
Acquisition	**1**
Accretion	**3**
Revisions in estimated cash flow	**(1)**
Revisions in discount rates	**(3)**
Balance, Dec. 31, 2018	**44**

	Decommissioning and restoration	Total
Balance, Dec. 31, 2017	44	44
Current portion	2	2
Non-current portion	42	42
Balance, Dec. 31, 2018	**44**	**44**
Current portion	**—**	**—**
Non-current portion	**44**	**44**

A decommissioning and restoration provision has been recognized for all generating facilities for which the Corporation is legally, or constructively, required to remove the facilities at the end of their useful lives and restore the sites to their original condition. The Corporation estimates that the undiscounted amount of cash flows required to settle the decommissioning and restoration obligations is approximately $193 million (2017 – $189 million), which will be incurred between 2029 and 2060. The majority of the costs will be incurred between 2030 and 2045.

19. Deferred Revenues

Deferred revenues consist primarily of a payment received under a PPA for the option, by the purchaser, to extend the term of the contract. This amount is amortized on a straight-line basis into revenue over the term of the contract.

20. Common Shares

A. Authorized and Outstanding

The Corporation is authorized to issue an unlimited number of common shares without nominal or par value and an unlimited number of preferred shares. The common shares entitle the holders thereof to one vote per share at meetings of shareholders. The preferred shares are issuable in series and have such rights, restrictions, conditions and limitations as the Board may from time to time determine. No preferred shares have been issued.

The change in issued and outstanding common shares is as follows:

As at Dec. 31	2018		2017	
	Common shares *(millions)*	**Amount *(millions)***	Common shares *(millions)*	Amount *(millions)*
Issued and outstanding, beginning of year	**250**	**2,854**	224	2,469
Issued to TransAlta	**—**	**—**	26	385
Public offering[1]	**12**	**145**	—	—
Dividend reinvestment plan	**1**	**12**	—	—
Issued and outstanding, end of year	**263**	**3,011**	250	2,854

(1) Net of $7 million in issuance costs, less tax effects of $2 million.

B. Dividends

The declaration of dividends on the Corporation's common shares is at the discretion of the Board.

The following table summarizes the common share dividends declared in 2018 and 2017:

Dividends declared	Total dividends per share	Total dividends	TransAlta	Other shareholders
Year ended Dec. 31, 2018	**0.93996**	**245**	**151**	**94**
Year ended Dec. 31, 2017	0.91496	222	140	82

On Oct. 31, 2018, the Corporation declared a monthly dividend of $0.07833 per common share payable on Jan. 31, 2019, Feb. 28, 2019, and March 29, 2019.

On March 5, 2019, the Corporation declared a monthly dividend of $0.07833 per common share payable on Apr. 30, 2019, May 31, 2019, and June 28, 2019.

C. Dividend Reinvestment Plan (DRIP)

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. Common shares under the DRIP will be issued from treasury.

21. Cash Flow Information

A. Change in Non-Cash Operating Working Capital

Year ended Dec. 31	2018	2017
Source (use):		
Accounts receivable	**(3)**	(25)
Prepaid expenses	**(2)**	—
Inventory	**(1)**	—
Accounts payable and accrued liabilities	**1**	8
Change in non-cash operating working capital	**(5)**	(17)

B. Changes in Liabilities from Financing Activities

	As at Jan. 1, 2018	Cash inflows	Cash outflows	Other	As at Dec. 31, 2018
Dividends payable	59	—	(230)	233	**62**
Long-term debt[1]	1,043	136	(247)	—	**932**
Total liabilities from financing activities	1,102	136	(477)	233	**994**

(1) Includes current portion. Credit facility cash inflows and outflows included on a net basis.

	As at Jan. 1, 2017	Cash inflows	Cash outflows	Other	As at Dec. 31, 2017
Convertible debenture	215	—	(215)	—	—
Dividends payable	49	—	(212)	222	59
Long-term debt(1)	827	466	(249)	(1)	1,043
Total liabilities from financing activities	1,091	466	(676)	221	1,102

(1) Includes current portion. Credit facility cash inflows and outflows included on a net basis.

22. Capital

The Corporation's objectives in managing its capital are to ensure it is able to support day-to-day operations and meet required financial obligations, as well as to provide for growth opportunities and ensure stable and predictable distributions to shareholders.

The Corporation's capital is comprised of the following:

As at Dec. 31	**2018**	2017
Current portion of long-term debt	**49**	250
Less: available cash and cash equivalents	**(73)**	(20)
	(24)	230
Long-term debt	**883**	793
Equity		
Common shares	**3,011**	2,854
Deficit	**(567)**	(701)
Accumulated other comprehensive income	**(89)**	8
Non-controlling interest	**41**	36
	3,279	2,990
Total capital	**3,255**	3,220

In 2018, the Corporation's capital structure included a lower percentage of total net debt than it did in 2017. The decrease in total net debt is mainly due to repayments of the TEA loan and the Canadian Assets working capital loan, partially offset by increased borrowings under the credit facility.

The Melancthon Wolfe Wind bond of $336 million (2017 – $372 million), the Pingston bond of $45 million (2017 – $45 million), the New Richmond bond of $142 million (2017 – $148 million) and the Kent Hills Wind bond of $252 million (2017 – $258 million) are subject to customary financing restrictions, which restrict the Corporation's ability to access funds generated by the facilities' operations (see Note 17).

At Dec. 31, 2018, TransAlta Renewables and its subsidiaries were in compliance with all financial covenants relating to debt obligations.

Dividends on the Corporation's common shares are at the discretion of the Board. In determining the payment and level of future dividends, the Board considers the financial performance, results of operations, cash flow and needs, with respect to financing ongoing operations and growth, balanced against returning capital to shareholders.

23. Joint Operations

The Corporation's joint operations at Dec. 31, 2018 and 2017, include the following:

Joint operation	**Ownership** *(per cent)*	**Description**
McBride Lake	50	Wind facility in Alberta operated by the Corporation
Pingston	50	Hydro facility in British Columbia operated by the Corporation
Soderglen	50	Wind facility in Alberta operated by the Corporation

24. Commitments and Contingencies

A. Contracts for Goods and Services

In the ordinary course of operations, the Corporation routinely enters into contracts for the purchase of goods and services and for leases of equipment. The Corporation also has several long-term service agreements in place for repairs and maintenance that may be required at its gas plant and on turbines at wind facilities. In addition, the Corporation has an agreement with TransAlta for general and administrative services.

Approximate future payments under these and other contractual obligations are as follows:

	Long-term service agreements[1]	General administrative services[2]	Other[3]	Operating leases	Total
2019	25	19	8	**1**	**53**
2020	41	19	3	**1**	**64**
2021	31	20	2	**1**	**54**
2022	15	20	2	**1**	**38**
2023	6	20	2	**1**	**29**
2024 and thereafter	33	215	43	**27**	**318**
Total	**151**	**313**	**60**	**32**	**556**

(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.

B. Guarantees

As part of the acquisition of the Australian Assets, the Corporation entered into a Guarantee and Indemnification Agreement in favour of TransAlta related to certain guarantees TransAlta has provided to third parties in respect of certain obligations of TEA (the "TEA Guarantees"). The Corporation has agreed to indemnify TransAlta from and against all claims, actions, proceedings, liabilities, losses, costs, expenses or damages against or incurred by TransAlta arising out of or in connection with the TEA Guarantees and to reimburse TransAlta in full for the amount of any payment made by TransAlta under and in accordance with the TEA Guarantees, relating to actions, omissions, events and circumstances that occur. As at Dec. 31, 2018, the total amounts guaranteed by the Corporation were $538 million (2017 – $921 million). $367 million of the decrease 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.

As consideration for this indemnity, TransAlta is required to pay the Corporation the Canadian-dollar equivalent of the guarantor fees it receives from TEA in respect of any of the TEA Guarantees, subject to the fixed rate conversion as described in Note 9.

C. Litigation

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 Fortescue Metals Group ("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.

In addition, a second matter involves FMG's claims against TransAlta related to the transfer of the Solomon Power Station to FMG. FMG claims certain amounts related to the condition of the facility while TransAlta claims certain outstanding costs that should be reimbursed.

D. Line Loss Rule Proceeding

TransAlta has been participating in a line loss rule proceeding before the Alberta Utilities Commission ("AUC"). The AUC determined that it has the ability to retroactively adjust line loss charges going back to 2006 and directed the Alberta Electric System Operator to, among other things, perform such retroactive calculations. The various decisions by the AUC are, however, subject to appeal and challenge. A recent decision by the AUC determined the methodology to be used retroactively. Based on that methodology, TransAlta concluded that the Corporation's maximum exposure for retroactive line loss charges is not material.

E. Contribution Commitment

In April 2018, the Corporation entered into a Contribution Agreement with several subsidiaries of TransAlta related to funding 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 Notes 4, 9, 16).

25. Related-Party Transactions and Balances

The Corporation has entered into certain agreements and transactions with TransAlta, which are discussed below.

A. Related-Party Transactions

Related-party transactions include the finance income related to subsidiaries of TransAlta (Note 9) and interest income related to investments in subsidiaries of TransAlta (Note 10). Also, all derivatives of the Corporation are entered into on behalf of the Corporation by a subsidiary of TransAlta.

Significant related-party transactions that are not otherwise presented elsewhere consist of the following:

Year ended Dec. 31	**2018**	2017
Revenue from TransAlta PPAs *(I)*	**36**	38
Revenue from Green Attributes[1]	**1**	—
G&A Reimbursement Fee[2] *(II)*	**16**	17
Natural gas purchases *(III)*	**7**	9
Power swap sales (financial) – losses (gains) *(III)*	**1**	4
Interest expense on convertible debenture	**—**	9
Interest expense on TEA loan	**4**	—
Asset optimization fee[3]	**2**	2
Realized foreign exchange gain on hedge of contribution agreement[4]	**—**	6
Interest expense on credit facility and letter of credit and guarantee fees	**1**	2

(1) The value of the Green Attributes was determined by reference to market information for similar instruments, including historical transactions with third parties.
(2) Includes portion charged directly to the Wyoming Wind farm and, in 2017, the Kent Hills 3 development fee discussed below.
(3) 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.
(4) Related to funding of South Hedland Power Station construction costs.

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

I. TransAlta PPAs

The Corporation has 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 fixed prices 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, Administrative and Operational Services Agreement ("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, the Corporation pays 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 five 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.

In 2017, the Corporation paid TransAlta a development fee of $1 million upon signing the PPA with NB Power for Kent Hills 3, and in the fourth quarter of 2018, paid a further upfront fee of $2 million upon achieving commercial operation of the Kent Hills expansion, in lieu of the annual five 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.

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 the Corporation’s 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.

III. Natural Gas Purchases, Sales and Power Swap Sales

The Corporation's 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.

B. Related-Party Balances

Related-party balances include the investments in subsidiaries of TransAlta disclosed in Note 9, the risk management assets and liabilities disclosed in Note 13, the Big Level loan receivable disclosed on Note 16, the Canadian Assets working capital loan and the TEA loan disclosed in Note 17, and the guarantees provided by the Corporation on behalf of TransAlta and TEA disclosed in Note 24.

Significant related-party balances that are not otherwise presented elsewhere consist of the following:

As at Dec. 31	**2018**	2017
Trade and other receivables	**41**	37
Accounts payable and accrued liabilities (including interest payable)	**11**	11
Dividends payable	**38**	37
Letters of credit issued by TransAlta on behalf of the Corporation *(I)*	**1**	1
Guarantees provided by TransAlta on behalf of the Corporation *(II)*	**106**	105
Long-term prepaid – management fee *(III)*	**2**	–

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 guarantee agreements, the counterparty may present a 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.

C. Key Management Personnel Services
The Corporation's key management personnel include the members of its Board and its Corporate Officers. Key management personnel services from Corporate Officers are provided through TransAlta and its subsidiaries and are part of the G&A Reimbursement Fee. Total compensation comprised of short-term employee benefits that pertain exclusively to director compensation, consisting of retainer and meeting fees and an allocation of director compensation towards grants of deferred share units and the purchase of common shares in the market, was approximately $1 million for the year ended Dec. 31, 2018 (2017 – $1 million).

26. Significant Customers

In addition to revenue from TransAlta (see Note 25), which represented eight per cent of total revenues (2017 – nine per cent), the Corporation had revenues from one other customer (2017 – one customer) that exceeded 10 per cent of the Corporation's total revenues at 41 per cent (2017 – 42 per cent).

27. Segment Disclosures

A. Description of Reportable Segments
The Corporation has four reportable segments outlined below.

B. Reported Segment Earnings (Loss) and Other Segment Information

I. Earnings Information

Year ended Dec. 31, 2018	**Canadian Wind**	**Canadian Hydro**	**Canadian Gas**	**Corporate**	**Total**
Revenues	**199**	**18**	**197**	**—**	**414**
Government incentives	**15**	**1**	**—**	**—**	**16**
Lease revenue	**25**	**7**	**—**	**—**	**32**
Total revenue	**239**	**26**	**197**	**—**	**462**
Fuel, royalties and other costs	**12**	**3**	**83**	**—**	**98**
Gross margin	**227**	**23**	**114**	**—**	**364**
Operations, maintenance and administration	**34**	**4**	**29**	**19**	**86**
Depreciation and amortization	**76**	**10**	**36**	**—**	**122**
Taxes, other than income taxes	**5**	**2**	**1**	**—**	**8**
Operating income (loss)	**112**	**7**	**48**	**(19)**	**148**
Finance income related to subsidiaries of TransAlta					**129**
Interest income					**45**
Interest expense					**(51)**
Change in fair value of financial assets					**(1)**
Foreign exchange gain					**6**
Earnings before income taxes					**276**

Year ended Dec. 31, 2017	Canadian Wind	Canadian Hydro	Canadian Gas	Corporate	Total
Revenues	201	18	191	—	410
Government incentives	18	—	—	—	18
Lease revenue	22	9	—	—	31
Total revenue	241	27	191	—	459
Fuel, royalties and other costs	11	3	83	—	97
Gross margin	230	24	108	—	362
Operations, maintenance and administration	31	3	30	19	83
Depreciation and amortization	74	9	32	—	115
Taxes, other than income taxes	5	2	1	—	8
Operating income (loss)	120	10	45	(19)	156
Finance income related to subsidiaries of TransAlta					39
Interest income					48
Interest expense					(59)
Foreign exchange loss					6
Change in fair value of Class B shares					(2)
Impairment of investment					(137)
Earnings before income taxes					51

II. Selected Consolidated Statements of Financial Position Information

Year ended Dec. 31, 2018	**Canadian Hydro**	**Canadian Wind**	**Canadian Gas**	**Total**
PP&E	183	1,322	314	1,819
Intangible assets	2	119	3	124

Year ended Dec. 31, 2017	Canadian Hydro	Canadian Wind	Canadian Gas	Total
PP&E	191	1,344	334	1,869
Intangible assets	1	100	2	103

III. Selected Consolidated Statements of Cash Flows Information

Year ended Dec. 31, 2018	**Canadian Hydro**	**Canadian Wind**	**Canadian Gas**	**Total**
Additions to non-current assets:				
PP&E	5	39	19	63

Year ended Dec. 31, 2017	Canadian Hydro	Canadian Wind	Canadian Gas	Total
Additions to non-current assets:				
PP&E	2	20	16	38