TransAlta Renewables Inc.

Consolidated Financial Statements

December 31, 2021

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 provides 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.

Todd Stack
President

Brent Ward
Chief Financial Officer

February 23, 2022

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. Management has reviewed the changes implemented in response to COVID-19 and is reasonably assured that adjustments to process have not materially affected, or are reasonably likely to materially affect, our internal control over financial reporting and disclosure controls and procedures.

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 Dec. 31, 2021, and has concluded that such internal control over financial reporting is effective.

Todd Stack
President

Brent Ward
Chief Financial Officer

February 23, 2022

Independent Auditor's Report

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, 2021 and 2020, 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, 2021 and 2020, 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.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period. These matters were addressed in the context of the audit of the consolidated financial statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter

Level III Fair Value of Investments in Subsidiaries of TransAlta Corporation

As disclosed in notes 2(c), 2(M)(IV), 7, and 11 of the consolidated financial statements, the Corporation holds an economic interest in certain gas and renewable facilities. These include interests that are held through investments in tracking preferred shares recognized at fair value through other comprehensive income. The valuation of these instruments, classified as Level III of the fair value hierarchy, are determined using inputs that are not readily observable. As at December 31, 2021 the Corporation's Investments in Subsidiaries of TransAlta Corporation classified as level III were $1,270 million.

The valuation of these tracking preferred shares is a key audit matter given the subjective nature of significant unobservable inputs that require judgments and estimates concerning generation profiles, commodity prices, cost estimates, and the determination of the discount rate.

How our audit addressed the key audit matter

We involved our internal valuation specialists to assess the methodology applied, and the various inputs utilized by management in developing the discount rate by referencing current industry, economic, and comparable company information, as well as company and cash-flow specific risk premiums. In addition, to test other key assumptions, we performed, amongst others, the following procedures:

- Inspected supporting evidence for cash flow forecasts by comparing volumes, prices, and timing to executed commodity contracts and third-party data
- Assessed the accuracy of management's estimation process, by comparing actual results to previous estimates and forecasts
- Performed a sensitivity analysis on the significant assumptions to evaluate the change in the fair value that would result from changes in those assumptions
- Assessed the adequacy of the Corporation's disclosures included in the notes to the consolidated financial statements in relation to this matter

Valuation of long-lived assets related to the Wind generation segment

The Corporation's statement of financial position includes $1,493 million in property, plant and equipment and an impairment charge of $12 million for the year ended December 31, 2021 related to the Wind generation assets as disclosed in notes 2(f), 2(M)(VI), and 12 of the consolidated financial statements. Wind generation assets are tested for impairment only when circumstances indicate that the carrying value of a cash generating unit ('CGU') may exceed the recoverable amount. During 2021, management identified indicators of impairment on certain CGUs in the Wind generation segment ("Wind CGUs").

Determining the recoverable amount for Wind CGUs for the purposes of the asset impairment test was identified as a key audit matter due to the significant estimation uncertainty and judgement applied by management in determining the recoverable amount, primarily due to the sensitivity of the significant assumptions to the future cash flows and the effect that changes in these assumptions would have on the recoverable amount. The estimates with a high degree of subjectivity include generation profiles, commodity prices, cost estimates, and the determination of the discount rate.

We involved our internal valuation specialists to assess the methodology applied, and the various inputs utilized by management in developing the discount rate by referencing current industry, economic, and comparable company information, as well as company and cash-flow specific risk premiums. In addition, to test other key assumptions used in the Corporation's recoverable amount of certain Wind CGUs, we performed, amongst others, the following procedures:

- Inspected supporting evidence for cash flow forecasts by comparing volumes, prices, and timing to executed commodity contracts and third-party data
- Assessed the accuracy of management's estimation process, by comparing actual results to previous estimates and forecasts
- Performed a sensitivity analysis on the significant assumptions to evaluate the change in the fair value that would result from changes in those assumptions
- Assessed the adequacy of the Corporation's disclosures included in the notes to the consolidated financial statements in relation to this matter

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:

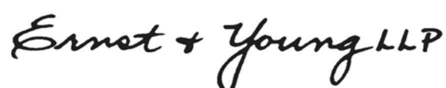
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of 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.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

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



Chartered Professional Accountants
Calgary, Canada

February 23, 2022

Consolidated Statements of Earnings

Year ended Dec. 31 ***(in millions of Canadian dollars, except as otherwise noted)***	**2021**	2020
Revenues (Note 5)	**470**	431
Government incentives	**—**	5
Total revenue	**470**	436
Fuel, royalties and other costs (Note 6)	**132**	77
Gross margin	**338**	359
Operations, maintenance and administration (Note 6)	**94**	89
Depreciation and amortization	**150**	135
Asset impairment (Note 12)	**17**	2
Taxes, other than income taxes	**8**	8
Operating income	**69**	125
Finance income related to subsidiaries of TransAlta (Note 7)	**108**	69
Interest income (Note 8)	**6**	6
Interest expense (Note 8)	**(42)**	(46)
Change in fair value of financial assets (Note 7)	**—**	(59)
Finance lease income (Note 13)	**1**	—
Foreign exchange gain	**8**	27
Earnings before income taxes	**150**	122
Income tax expense (Note 9)	**11**	25
Net earnings	**139**	97

Net earnings (loss) attributable to:		
Common shareholders	**140**	92
Non-controlling interest (Note 10)	**(1)**	5
	139	97
Weighted average number of common shares outstanding in the year ***(millions)*** **(Note 19)**	**267**	266
Net earnings per share attributable to common shareholders, basic and diluted	**0.52**	0.35

See accompanying notes.

Consolidated Statements of Comprehensive Income

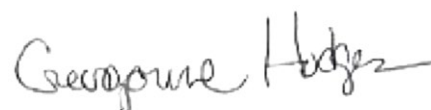
Year ended Dec. 31 *(in millions of Canadian dollars)*	2021	2020
Net earnings	**139**	97
Other comprehensive income (loss)		
Gains on financial instruments designated as cash flow hedge, net of tax	**1**	—
Net change in fair value of investments in subsidiaries of TransAlta (Note 7)	**(73)**	126
Total items that will not be reclassified subsequently to net earnings	**(72)**	126
Losses on derivatives designated as cash flow hedges, net of tax	**(1)**	—
Total items that will be reclassified subsequently to net earnings	**(1)**	—
Other comprehensive income (loss)	**(73)**	126
Total comprehensive income	**66**	223
Total comprehensive income (loss) attributable to:		
Common shareholders	**67**	218
Non-controlling interest (Note 10)	**(1)**	5
	66	223

See accompanying notes.

Consolidated Statements of Financial Position

As at Dec. 31 *(in millions of Canadian dollars)*	**2021**	2020
Cash and cash equivalents (Note 11)	**244**	582
Accounts receivable (Note 11)	**120**	134
Risk management assets (Note 11)	**1**	—
Inventory	**8**	7
Current portion of other assets (Notes 11 and 16)	**57**	20
	430	743
Property, plant and equipment (Note 12)		
Cost	**3,263**	2,856
Accumulated depreciation	**(1,366)**	(1,239)
	1,897	1,617
Finance lease receivable (Notes 11 and 13)	**7**	7
Right-of-use assets (Note 14)	**26**	27
Intangible assets (Note 15)	**92**	103
Other assets (Notes 11 and 16)	**7**	54
Investments in subsidiaries of TransAlta (Notes 7 and 11)	**1,270**	1,087
Deferred income tax assets (Note 9)	**20**	18
Total assets	**3,749**	3,656
Accounts payable and accrued liabilities (Note 11)	**82**	51
Income tax payable	**1**	1
Dividends payable (Notes 11 and 19)	**63**	63
Current portion of contract liabilities (Note 5)	**13**	—
Risk management liabilities (Note 11)	**3**	1
TEA demand loan (Notes 11 and 17)	**167**	195
Current portion of long-term debt and lease obligations (Notes 11 and 17)	**264**	53
	593	364
Long-term debt and lease obligations (Notes 11 and 17)	**550**	639
Decommissioning provisions (Note 18)	**175**	51
Contract liabilities (Note 5)	**6**	6
Risk management liabilities (Note 11)	**1**	1
Deferred income tax liabilities (Note 9)	**301**	290
Total liabilities	**1,626**	1,351
Equity		
Common shares (Note 19)	**3,059**	3,059
Deficit	**(907)**	(796)
Accumulated other comprehensive loss	**(78)**	(8)
Equity attributable to shareholders	**2,074**	2,255
Non-controlling interest (Note 10)	**49**	50
Total equity	**2,123**	2,305
Total liabilities and equity	**3,749**	3,656

Commitments and contingencies (Note 23)



On behalf of the Board:

David Drinkwater
Chair

Georganne Hodges
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, 2020	3,059	(796)	(8)	2,255	50	2,305
Net earnings (loss)	—	**140**	—	**140**	**(1)**	**139**
Other comprehensive income:						
Net change in fair value of investments of subsidiaries of TransAlta (Note 7)[(1)]	—	—	**(73)**	**(73)**	—	**(73)**
Total comprehensive income (loss)	—	**140**	**(73)**	**67**	**(1)**	**66**
Common share dividends (Note 19)	—	**(251)**	—	**(251)**	—	**(251)**
Acquisition of Windrise wind project (Note 4)	—	—	**3**	**3**	—	**3**
Balance, Dec. 31, 2021	**3,059**	**(907)**	**(78)**	**2,074**	**49**	**2,123**

(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, 2019	3,039	(637)	(134)	2,268	45	2,313
Net earnings	—	92	—	92	5	97
Other comprehensive income:						
Net change in fair value of investments of subsidiaries of TransAlta (Note 7)[(1)]	—	—	126	126	—	126
Total comprehensive income	—	92	126	218	5	223
Common share dividends (Note 19)	—	(251)	—	(251)	—	(251)
Dividend reinvestment plan (Note 19)	20	—	—	20	—	20
Balance, Dec. 31, 2020	3,059	(796)	(8)	2,255	50	2,305

(1) Net of income tax expense of nil for the year ended Dec. 31, 2021 (2020 – nil).

See accompanying notes.

Consolidated Statements of Cash Flows

Year ended Dec. 31 *(in millions of Canadian dollars)*	2021	2020
Operating activities		
Net earnings	**139**	97
Depreciation and amortization	**150**	135
Accretion of provisions (Notes 8 and 18)	**5**	3
Deferred income tax expense (Note 9)	**9**	24
Change in fair value of financial assets	**—**	59
Unrealized foreign exchange gain (Note 7)	**(6)**	(31)
Unrealized loss from risk management activities	**(1)**	—
Provisions	**(6)**	7
Asset impairment (Note 12)	**17**	2
Other non-cash items	**16**	2
Cash flow from operations before changes in working capital	**323**	298
Change in non-cash operating working capital balances (Note 20)	**13**	(31)
Cash flow from operating activities	**336**	267
Investing activities		
Additions to property, plant and equipment (Notes 4 and 12)	**(81)**	(27)
Additions to intangibles (Note 15)	**—**	(1)
Net repayments on promissory notes from a subsidiary of TransAlta (Note 16)	**18**	98
Proceeds on redemptions of investments in subsidiaries of TransAlta (Note 7)	**—**	537
Investments in subsidiaries of TransAlta (Note 7)	**(280)**	(72)
Acquisitions (Note 4)	**(213)**	—
Return of capital on investments in subsidiaries of TransAlta (Note 7)	**24**	30
Realized foreign exchange loss on financial instruments	**(2)**	—
Advances on Kent Hills Wind LP loan receivable (Note 16)	**(3)**	(5)
Change in non-cash investing working capital balances	**15**	(5)
Other	**(3)**	—
Cash flow from (used in) investing activities	**(525)**	555
Financing activities		
Net decrease in borrowings under credit facilities (Note 17)	**—**	(220)
Issuance of long-term debt (Notes 17 and 20)	**173**	—
Long-term debt repayments (Notes 17 and 20)	**(52)**	(50)
Dividends paid on common shares (Note 20)	**(251)**	(231)
Realized foreign exchange gain on financial instruments	**3**	11
Net proceeds (repayments) on issuance of TEA demand loan (Notes 17 and 20)	**(18)**	188
Lease obligations – principal repayment (Notes 17 and 20)	**(1)**	(1)
Financing costs	**(3)**	—
Cash flow used in financing activities	**(149)**	(303)
Increase (decrease) in cash and cash equivalents	**(338)**	519
Cash and cash equivalents, beginning of year	**582**	63
Cash and cash equivalents, end of year	**244**	582
Cash income taxes paid	**2**	1
Cash interest paid	**42**	38

See accompanying notes.

Notes to Consolidated Financial Statements

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

1. Corporate Information

A. Formation of the Corporation

TransAlta Renewables Inc. ("TransAlta Renewables" or the "Company") 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 Company is a majority-owned subsidiary of TransAlta Corporation ("TransAlta"). The Company'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 Company and the subsidiaries that it controls. Control exists when the Company 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 Company'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 Company'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 February 23, 2022.

2. Material Accounting Policies

The Company has reviewed the accounting policies disclosed in accordance with the amendments to IAS 1 to disclose the material accounting policy information rather than significant accounting policies. The definition of material that management has used to judgmentally determine disclosure is that information is material if omitting it or misstating it could influence decisions primary users make on the basis of financial information.

A. Revenue Recognition

I. Contracts with Customers

The Company 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. Each promise to provide a good or service within a contract is accounted for separately as a performance obligation if it is distinct. The Company's contracts may contain more than one performance obligation. The transaction price, which is the amount of consideration to which the Company expects to be entitled to within each contract, is determined and is allocated to the performance obligation in the contract. The transaction price may include variable consideration based on, for example, future production volumes, variable costs, market prices or indices and escalators. Variable consideration is only 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. Revenue is recognized when, or as, the Company satisfies the performance obligations by transferring control of the good or service 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 Company's performance to date.

The majority of the Company's revenues from contracts with customers are derived from the sale of electricity, capacity and environmental attributes. Obligations to deliver electricity are satisfied over time and revenue is recognized using a units-based output measure (i.e., megawatt hours). Obligations to deliver capacity are satisfied over time and revenue is recognized using a time-based measure. Environmental attributes that are sold together with electricity are satisfied on the same basis as the electricity. Obligations to deliver environmental attributes are satisfied at a point in time, generally upon delivery.

The Company recognizes unconditional rights to consideration separately as a receivable. Receivables are evaluated at each reporting period to determine whether there is any objective evidence that they are impaired. A contract liability is recognized when the Company receives consideration from the customer before the performance obligations have been satisfied.

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.

B. Foreign Currency Translation

The Company'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. The foreign exchange gains or losses arising from the preferred shares tracking Australia Cash Flows and the preferred shares tracking earnings and distributions of Wyoming wind, Big Level and Antrim, Lakeswind, Mass Solar, Skookumchuck, Ada, and North Carolina Solar are recognized in other comprehensive income.

C. Financial Instruments

I. Financial Instruments, Impairment and Hedging

a. Classification and Measurement

Financial assets are classified and measured based on their contractual cash flow characteristics and the business model under which the Company 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 Company 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 liabilities are classified as FVTPL when the financial liability is held for trading. All other financial liabilities are subsequently measured at amortized cost.

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 Company 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 M(III) below for policy on return of capital for investments in equity instruments.

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 Company 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.

The Company 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.

Derivatives embedded in non-derivative host contracts that are not financial assets are recognized 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 are not separated and the entire contract is measured at FVTOCI, FVTPL or amortized cost, as appropriate.

b. Impairment of Financial Assets

The Company 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, the Company applies a simplified approach for measuring the loss allowance. Therefore, the Company 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. Hedge Accounting

Where hedge accounting can be applied and the Company chooses to apply hedge accounting, a hedge relationship is designated as a cash flow or fair value hedge. A relationship qualifies for hedge accounting if, at inception, it is formally designated and documented as a hedge, and the hedging instrument and the hedged item have values that generally move in opposite directions because of the hedged risk. The documentation includes identification of the hedging instrument and hedged item or transaction, the nature of the risk being hedged, the Company'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 Company 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 Company does not apply hedge accounting, the derivative is recognized at fair value on the Consolidated Statements of Financial Position, 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 while any ineffective portion is recognized in net earnings. The cash flow hedge reserve is adjusted to the lower of the cumulative gain or loss on the hedging instrument and the cumulative change in fair value of the hedged item. If cash flow hedge accounting is discontinued, the amounts previously recognized in accumulated other comprehensive income ("AOCI") must remain in AOCI if the hedged future cash flows are still expected to occur. Otherwise, the amount will be immediately reclassified to net earnings as a reclassification adjustment. After discontinuation, once the hedged cash flow occurs, any amount remaining in AOCI must be accounted for depending on the nature of the underlying transaction.

In certain cases, the Company 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. Hedging gains and losses are basis adjusted to the initial carrying amount of non-financial hedged items once recognized. These adjustments are not considered reclassification adjustments and do not affect OCI, but are directly transferred to the asset and are reflected in the Consolidated Statement of Changes in Equity as a reclassification from AOCI.

D. Cash and Cash Equivalents

Cash and cash equivalents comprises 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 Company 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 Company'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. Decommissioning and restoration provisions are recognized for all generating facilities for which the Company 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 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 gas, wind, solar and 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 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 remaining useful lives of the components of depreciable assets, categorized by asset class, are as follows:

Hydro generation	1-40 years
Wind generation	1-30 years
Gas generation	1-12 years
Capital spares and other	2-18 years

The Company capitalizes borrowing costs on capital invested in projects under construction. 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 remaining useful lives of intangible assets are as follows:

Software	1-16 years
Power sale contracts	4-12 years

H. Impairment of Tangible and Intangible Assets

At the end of each reporting period, the Company 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 Company'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 Company'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 Company. 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 consists of 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 Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Company 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 Company 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 Company 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 an obligation exists. Each reporting date, the Company determines the present value of the provision using the current discount rates that reflect the time value of money and associated risks. The Company 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. Leases

A contract is a lease when the contract conveys to the customer the right to control the use of an identified asset for a period of time in exchange for consideration. The right to control the use of the asset exists when the customer has the right to obtain substantially all of the economic benefits from the use of the asset and the right to direct the use of the asset.

For the year ended Dec. 31, 2021, the Company paid $2 million (2020 – $2 million) related to recognized lease liabilities, consisting of $1 million (2020 – $1 million) in interest and $1 million (2020 – $1 million) in principal repayments.

I. Company as Lessee

For all contracts that meet the definition of a lease, in which the Company is the lessee (customer), and that do not meet the exemption for short-term or low-value leases, the Company:

- Recognizes right-of-use assets and lease liabilities in the Consolidated Statements of Financial Position, initially measured at the present value of the remaining lease payments discounted using the Company's incremental borrowing rate or the rate implicit in the lease;
- Recognizes depreciation of the right-of-use assets and interest expense on lease obligations in the Consolidated Statements of Earnings; and
- Recognizes the principal repayments on lease obligations as financing activities and interest payments on lease obligations as operating activities in the Consolidated Statements of Cash Flows.

For short-term and low-value leases, the Company recognizes the lease payments as an operating expense.

Variable lease payments that do not depend on an index or a rate are not included in the measurement of the lease liability and the right-of-use asset, and are recognized as an expense in the period in which the event or condition that triggers the payments occurs.

Some of the Company's land leases that met the definition of a lease were not recognized as they require variable payments based on production or revenue. Additionally, certain land leases require payments be made on the basis of the greater of minimum fixed payments and variable payments based on production or revenue. For these leases, lease liabilities have been recognized on the basis of the minimum fixed payments. For the year ended Dec. 31, 2021, $6 million in variable land lease payments were expensed related to these leases (2020 – $7 million).

The right-of-use asset is adjusted for: payments made at or before the commencement date of the lease; initial direct cost incurred; lease incentives; and an estimate of costs to dismantle and remove the underlying asset, or to restore the underlying asset or the site on which it is located.

The lease liability is re-measured when there is a change in future lease payments arising from a change in an index or rate, or if there is a change in the Company's estimate or assessment of whether it will exercise an extension, termination or purchase option. A corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The lease term includes periods covered by an option to extend if the Company is reasonably certain to exercise that option and periods covered by an option to terminate if the Company is reasonably certain not to exercise that option.

Right-of-use assets are depreciated over the shorter period of either the lease term or the useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise the purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset.

II. Company as Lessor

Where the Company determines that the contractual provisions of a power purchase agreement ("PPA") or other long-term contract for the sale of power generated meet the definition of a lease and result in the customer assuming the principal risks and rewards of ownership of the asset, the arrangement is a finance lease. Assets subject to finance leases are not reflected as PP&E and the net investment in the lease, represented by the present value of the amounts due from the lessee, is recorded in the Consolidated Statements of Financial Position as a financial asset, classified as a finance lease receivable. The payments considered to be part of the leasing arrangement are apportioned between a reduction in the lease receivable and finance lease income. The finance lease income element of the payments is recognized using a method that results in a constant rate of return on the net investment in each period and is reflected in finance lease income on the Consolidated Statements of Earnings.

Where the Company determines that the contractual provisions of a contract meet the definition of a lease and result in the Company 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.

When the Company has subleased all or a portion of an asset it is leasing and for which it remains the primary obligor under the lease, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance lease by reference to the right-of-use asset arising from the head lease.

L. Business Combinations for Common Control Transactions

Transactions in which the acquisition constitutes a business under common control are accounted for using the pooling of interest method. Identifiable assets acquired and liabilities assumed are measured at their acquisition date book values. A business consists of inputs and processes applied to those inputs that have the ability to contribute to the creation of outputs. Acquisition-related costs to effect the business combination, are recognized in net earnings as incurred.

An optional fair value concentration test can be applied on a transaction-by-transaction basis, to permit a simplified assessment of whether an acquired set of activities and assets are not a business. Where substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, the Company may elect to treat the acquisition as an asset acquisition and not as a business combination.

M. 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 Company'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 Company's financial position or performance.

The key judgments and sources of estimation uncertainty are described below:

I. COVID-19

The outbreak of the novel strain of coronavirus ("COVID-19") has resulted in governments worldwide enacting emergency measures to constrain the spread of the virus. These measures, which include the implementation of travel bans, self-imposed quarantine periods, self-isolation, physical and social distancing and the closure of non-essential businesses, have caused significant disruption to businesses globally, which has resulted in an uncertain and challenging economic environment. The duration and impact of the COVID-19 pandemic are unknown at this time. Estimates to the extent to which the COVID-19 pandemic may, directly or indirectly, impact the Company's operations, financial results and conditions in future periods are also subject to significant uncertainty.

II. Significant Influence through Tracking Preferred Shares

The Company has invested in preferred shares of subsidiaries of TransAlta that pay dividends based on 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 Company's investments in the preferred shares of a subsidiary of TransAlta tracking the financial results of certain US Wind and Solar assets and US Gas assets (see Note 7) provide the Company individually with a 2.4 per cent (cumulatively 16.8 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 Company will have the right to appoint individually 8 per cent (cumulatively 56 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 Company 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 Company is entitled to elect 30 per cent of the directors of the subsidiary. The investment agreement provides the Company with rights to financial information and further protections against adverse changes in the operation and financial structure of TEA through post-closing covenants.

The Company determined that it does not have significant influence over the TransAlta subsidiaries, in consideration of TransAlta's block ownership of the voting shares and the existing rights afforded from the tracking preferred shares, the investments were determined to constitute financial assets.

III. Dividends as Income or Return of Capital

The Company receives dividends from its investments in the preferred shares tracking Australia Cash Flows, TEA preferred shares, preferred shares tracking earnings and distributions of Wyoming wind, Big Level and Antrim, Lakeswind, Mass Solar, Skookumchuck, North Carolina and Ada (known collectively as "the Economic Interest Investments"). Determining whether a dividend represents in substance a return of capital requires significant judgment. The Company 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. The TEA preferred shares were redeemed on Oct. 23, 2020.

IV. Financial Instrument Fair Values
The Company 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 11. Some of the Company'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.

V. Consolidation of Kent Hills Wind LP (comprising Kent Hills 1, 2 and 3 ("Kent Hills") Wind Facilities)
Under IFRS, the Company is required to consolidate all entities that it controls. The Company consolidates Kent Hills Wind LP as a subsidiary. Kent Hills Wind LP is owned 83 per cent by the Company and 17 per cent by an external third party. The Company controls the Kent Hills Wind LP through its 83 per cent ownership, and accordingly, consolidation is required.

VI. 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. 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. The majority of the Company's generating assets are contracted under the TransAlta PPAs or other PPAs with various third parties.

VII. 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 Company 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 Company's estimates could materially impact the amounts recognized for deferred income tax assets and liabilities.

VIII. Provisions for Decommissioning and Restoration Activities
The Company 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 Company'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.

IX. 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 assets, 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.

X. Revenue from Contracts with Customers
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.

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 Company also considers the historical production levels and operating conditions for its variable generating assets.

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.

XI. Leases
In determining whether a contract is a lease, the Company applies judgment in determining whether an identified asset exists, whether the customer or supplier obtains substantially all of the economic benefits from use of the identified asset, and who has the right to control the use of the identified asset during the term of the contract.

For contracts that are considered to be leases, judgment is applied in making the following determinations at the lease commencement date, all of which affect the amount recognized for the right-of-use asset and lease liability:

- Lease term; whether the Company is reasonably certain to exercise renewal or, not to exercise, termination options;
- Lease payments; identifying in-substance fixed payments (included) and variable payments that are based on usage or performance factors (excluded); and
- Components of a contract; identifying lease and non-lease components (services that the supplier performs) and allocating contract payments to lease and non-lease components.

3. Accounting Changes

A. Current Accounting Changes

Amendments to IAS 1 Presentation of Financial Statements: Material Accounting Policies
Effective for the 2021 annual financial statements, the Company early adopted amendments to IAS 1 *Presentation of Financial Statements* in advance of its mandatory effective date of Jan. 1, 2023, which requires entities to disclose their material accounting policy information rather than their significant accounting policies. The Company has updated the accounting policies disclosed in Note 2 based on its assessment of the amended standard.

Amendments to IAS 16 *Property, Plant and Equipment: Proceeds before Intended Use*
Effective Jan. 1, 2021, the Company early adopted amendments to IAS 16 *Property, Plant and Equipment* ("IAS 16 Amendments") in advance of its mandatory effective date of Jan 1, 2022. The Company adopted the IAS 16 Amendments retroactively. No cumulative effect of initially applying the guidance arose. The IAS 16 Amendments prohibit deducting from the cost of an item of PP&E any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in a manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the cost of producing those items, in profit or loss. No adjustments resulted from early adopting the amendments.

IFRS 7 *Financial Instruments: Disclosures* — Interest Rate Benchmark Reform

The transition of the London Interbank Offered Rates ("LIBOR") has begun with the cessation of the publication of one-week and two-month USD LIBOR occurring on Dec. 31, 2021. The remaining overnight, one-, three-, six-, and 12-month USD LIBOR will continue to be published until their cessation date on June 30, 2023. Existing financial instruments may continue to use USD LIBOR while they are published until they mature, however, new financial instruments will not be using USD LIBOR if entered into after Dec. 31, 2021. The IASB issued Interest Rate Benchmark Reform — Phase 2 in August 2020, which amends IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement, IFRS 7 Financial Instruments: Disclosures and IFRS 16 Leases. The amendments were effective Jan. 1, 2021, and were adopted by the Company on Jan. 1, 2021.

The credit facility references USD LIBOR for US-dollar drawings and the Canadian Dollar Offered Rate for Canadian drawings, and includes appropriate fallback language to replace these benchmark rates if a benchmark transition event were to occur. There was no financial impact upon adoption.

B. Future Accounting Changes

Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets

On May 14, 2020, the IASB issued *Onerous Contracts — Cost of Fulfilling a Contract* and amendments to IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* to specify which costs to include when assessing whether a contract will be loss-making. The amendments are effective for annual periods beginning on or after Jan. 1, 2022 and will be adopted by the Company in 2022. The amendments are effective for contracts for which an entity has not yet fulfilled all its obligations on or after the effective date. No financial impact is expected upon adoption.

Amendments to IAS 12 Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction

On May 7, 2021, the IASB issued amendments to IAS 12 *Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction.* The amendments clarify that the initial recognition exemption under IAS 12 does not apply to transactions such as leases and decommissioning obligations. These transactions give rise to equal and offsetting temporary differences in which deferred tax should be recognized.

The amendments are effective for annual periods beginning on or after Jan. 1, 2023, with early application permitted. The Company's current position aligns with the amendment and therefore, no financial impact is expected upon adoption on the effective date.

Amendments to IAS 1 Classification of Liabilities as Current or Non-Current

In January 2020, the IASB issued amendments to IAS 1 *Presentation of Financial Statements*, to provide a more general approach to the presentation of liabilities as current or non-current based on contractual arrangements in place at the reporting date. These amendments specify that the rights and conditions existing at the end of the reporting period are relevant in determining whether the Company has a right to defer settlement of a liability by at least 12 months, provide that management's expectations are not a relevant consideration as to whether the Company will exercise its rights to defer settlement of a liability and clarify when a liability is considered settled.

The amendments are effective for annual periods beginning on or after Jan. 1, 2023, and are to be applied retrospectively. The Company has not yet determined the impact of these amendments on its consolidated financial statements.

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. Business Combinations Under Common Control

Acquisition of the Windrise Wind Project

On Feb. 26, 2021, the Company acquired a 100 per cent direct interest in the 206 MW Windrise wind project located in Alberta for $213 million. The acquisition is accounted for as a business combination under common control. The Company applied the pooling of interest method to account for the acquisition of the Windrise wind project, consistent with its previously chosen accounting policies. The Windrise wind project assets and liabilities acquired have been recognized at the book value previously recognized by TransAlta at Feb. 26, 2021, and not at their fair values, including $233 million in PP&E, $21 million in net working capital liabilities, $3 million in net risk management assets, $2 million in right-of-use assets and $2 million in lease liabilities. As a result, the Company recognized a charge to equity of $3 million for the difference between the proceeds and book value of the Windrise wind project assets. See Note 17 for details on financing of the acquisition.

The results of operations of the Windrise wind facility have been included in the Company's Consolidated Statements of Earnings prospectively from the Feb. 26, 2021, acquisition date, and prior period comparative financial statements have not been restated. On Nov. 10, 2021, the Windrise wind facility achieved commercial operations.

5. Revenue from Contracts with Customers

A. Disaggregation of Revenue from Contracts with Customers

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

Year ended Dec. 31, 2021	**Canadian Wind**	**Canadian Hydro**	**Canadian Gas**	**Total**
Revenue from contracts with customers[1]	**222**	**29**	**202**	**453**
Merchant revenue and other	**2**	**—**	**15**	**17**
Revenues	**224**	**29**	**217**	**470**
Timing of revenue recognition:				
At a point in time	**22**	**—**	**—**	**22**
Over time	**200**	**29**	**202**	**431**
Revenue from contracts with customers	**222**	**29**	**202**	**453**

Year ended Dec. 31, 2020	Canadian Wind	Canadian Hydro	Canadian Gas	Total
Revenue from contracts with customers[1]	237	29	155	421
Merchant revenue and other	2	—	8	10
Revenues	239	29	163	431
Timing of revenue recognition:				
At a point in time	8	—	—	8
Over time	229	29	155	413
Revenue from contracts with customers	237	29	155	421

(1) During the first quarter of 2021, environmental credits recognized within revenue from contracts with customers were reclassified to show as recognized at a point in time and prior periods were adjusted. Revenue from contracts with customers includes revenue generated from the sale of environmental credits for the 12 months ended Dec. 31, 2021, of $22 million (2020 — $8 million).

B. Environmental Credits

The Technology Innovation and Emissions Reduction ("TIER") Regulation replaced the Carbon Competitiveness Incentive Regulation ("CCIR") in the Province of Alberta on Jan. 1, 2020. Under TIER, wind projects will continue to generate carbon credits — Emission Offsets and Emission Performance Credits ("EPC") — as they did under the CCIR. Included in revenue from contracts with customers for the year was $19 million (2020 — $6 million) related to the sale of 618,895 (2020 — 226,406) of Alberta carbon offsets and EPCs to TransAlta.

At Dec. 31, 2021, the Company held 356,243 emissions credits (2020 — 494,993), which are expected to be serialized and monetized through sales to TransAlta or other third parties at market prices.

C. Remaining Performance Obligations

The following disclosures regarding the aggregate amounts of transaction prices allocated to remaining performance obligations (contract revenues that have not yet been recognized) for contracts in place at the end of the reporting period exclude revenues related to contracts that qualify for the invoice practical expedient and contracts with an original expected duration of less than 12 months.

Additionally, in some of the Company'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 Company'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.

Contracts with customers that are accounted for as derivatives are excluded from these disclosures. Refer to Note 11 for further details. Contracts that have been executed for development projects are excluded until commercial operations have been achieved.

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 Company from its contractual portfolio.

Canadian Wind

At Dec. 31, 2021, the Company has two long-term contracts with customers to deliver electricity and the associated renewable energy credits from two wind facilities, for which the invoice practical expedient is not applied. The PPAs generally require all available generation to be provided to the customers at fixed prices, with certain pricing subject to annual escalations for inflation. The Company expects to recognize such amounts as revenue as it delivers electricity over the remaining terms of the contracts, to 2024 and 2033, respectively.

The Company has contracts to sell renewable energy credits generated at certain wind facilities and expects to recognize revenues as it delivers the renewable energy credits to the purchasers over the remaining terms of the contracts, from 2022 through 2024. Estimated future revenues related to the remaining performance obligations for these contracts as of Dec. 31, 2021, are approximately $9 million.

Canadian Gas

The Company has contracts with customers to deliver energy services from its gas facility in Ontario.

On May 12, 2021, the Company executed an Amended and Restated Energy Supply Agreement with one of its large industrial customers at the Sarnia cogeneration facility that provides for the supply of electricity and steam. This agreement extends the term of the original agreement from Dec. 31, 2022 to Dec. 31, 2032. However, if TransAlta is unable to enter into a new contract with the Independent Electricity System Operator of Ontario (IESO) or enter into agreements with its other industrial customers at the Sarnia cogeneration facility that extend past Dec. 31, 2025, then this agreement will automatically terminate on Dec. 31, 2025. The Company currently expects to recognize revenue as it delivers electricity and steam to the other industrial customers at the Sarnia cogeneration facility until the completion of the contract in 2025, or 2032 if the contract is extended.

At the same gas facility, the Company has a contract with the local power authority with fixed capacity charges that are adjusted for seasonal fluctuations, steam demand from the facility'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 Company’s control and are considered to be fully constrained. Accordingly, these revenues are excluded from these disclosures. The Company expects to recognize such revenue as it stands ready to deliver electricity until the completion of the contract term at Dec. 31, 2025.

D. Contract Balances

The contract liabilities outstanding at Dec. 31, 2021, primarily relate to prepayments relating to the Company's Bone Creek facility where the Company still has to fulfil its performance obligations. In addition, the Company recognized a provision for liquidated damages due to the Sarnia outages that occurred in the second quarter of 2021.

6. Expenses by Nature

Expenses classified by nature are as follows:

Year ended Dec. 31	**2021**		2020	
	Fuel, royalties and other costs	**Operations, maintenance and administration**	Fuel, royalties and other costs	Operations, maintenance and administration
Fuel	**96**	**—**	52	—
Royalties, land lease costs and other direct costs	**13**	**—**	14	—
Transmission tariffs	**2**	**—**	11	—
Carbon compliance costs[1]	**21**	**—**	—	—
Contracted operating expenses	**—**	**44**	—	44
Other operating expenses	**—**	**50**	—	45
Total	**132**	**94**	77	89

(1) The first carbon compliance payment was due and paid on April 15, 2021, relating to 2019 GHG emissions.

In 2020, the Company has recorded $8 million for net settlement costs on the Alberta Electric System Operator ("AESO") transmission line loss settlement, representing its allocation of the transmission line losses under transmission tariffs above. For additional information, see Note 23, Commitments and Contingencies.

7. Finance Income Related to Subsidiaries of TransAlta

Finance income related to subsidiaries of TransAlta includes income from various interests that in aggregate and over time indirectly provide the Company with cash flows based on the cash flows of the subsidiaries. This includes the Economic Interest Investments.

Year ended Dec. 31	2021	2020
Dividend income from investment in preferred shares of TEA[(1)]	—	3
Fee income from indirect guarantee of TEA obligations	10	11
Dividend income from investment in preferred shares tracking Australia Cash Flows	77	26
Dividend income from investment in preferred shares tracking the amortizing term loan[(1)]	—	17
Finance income related to TEA	**87**	57
Dividend income from investments in preferred shares tracking earnings and distributions of US Wind and Solar facilities	18	12
Dividend income from investments in preferred shares tracking earnings and distributions from the US Gas facility	3	—
Total finance income	**108**	69

(1) The preferred shares of TEA and preferred shares tracking the Amortizing Term Loan were redeemed on Oct. 23, 2020.

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 Comprehensive Income.

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

As at	Dec. 31, 2021	Dec. 31, 2020
Investment in preferred shares tracking Australia Cash Flows	697	771
Investment in preferred shares tracking earnings and distributions of Big Level and Antrim	165	139
Investment in preferred shares tracking earnings and distributions of Mass Solar	45	48
Investment in preferred shares tracking earnings and distributions of Lakeswind	18	19
Investment in preferred shares tracking earnings and distributions of Wyoming wind	99	110
Investment in preferred shares tracking earnings and distributions of Skookumchuck	85	—
Investment in preferred shares tracking earnings and distributions of North Carolina	127	—
Investment in preferred shares tracking earnings and distributions of Ada	34	—
Total investments in subsidiaries of TransAlta	**1,270**	1,087

Investment in Subsidiaries of TransAlta Related to TEA, US Wind and Solar and US Gas

Changes in the investments in subsidiaries of TransAlta are detailed as follows:

	Preferred Shares Tracking Australia Cash Flows[(1)]	Preferred Shares Tracking Earnings and Distributions of US Wind and Solar Facilities[(2)]	Preferred Shares Tracking Earnings and Distributions of US Gas[(3)]	Preferred Shares Tracking the Amortizing Term Loan[(4)]	Preferred shares of TEA[(4)]	Total
Investment balance at Dec. 31, 2019	598	320	—	532	42	1,492
Investment	—	72	—	—	—	72
Redemption	—	—	—	(495)	(42)	(537)
Return of capital	—	(30)	—	—	—	(30)
Foreign exchange gains recognized in earnings	—	—	—	22	—	22
Net change in fair value recognized in earnings	—	—	—	(59)	—	(59)
Net change in fair value and foreign exchange recognized in OCI	173	(46)	—	—	—	127
Investment balance at Dec. 31, 2020	771	316	—	—	—	1,087
Investment	**—**	**237**	**43**	**—**	**—**	**280**
Return of capital	**—**	**(21)**	**(3)**	**—**	**—**	**(24)**
Net change in fair value and foreign exchange recognized in OCI	**(74)**	**7**	**(6)**	**—**	**—**	**(73)**
Investment balance at Dec. 31, 2021	**697**	**539**	**34**	**—**	**—**	**1,270**

(1) Principal amounts as at Dec. 31, 2021, and Dec. 31, 2020, were AU$773 million respectively for Australia.
(2) Principal amounts as at Dec. 31, 2021, and Dec. 31, 2020, were US$453 million and US$281 million for US Wind and Solar facilities.
(3) Principal amounts as at Dec. 31, 2021, were US$32 million for US Gas.
(4) Principal amounts as at Dec. 31, 2021, and Dec. 31, 2020, were nil, respectively. The preferred shares of TEA were classified as at FVTOCI and the Preferred Shares Tracking the Amortizing Term Loan was classified as at FVTPL. Both were redeemed on Oct. 23, 2020.

Preferred Shares Tracking Australia Cash Flows

On Oct. 22, 2020, Southern Cross Energy ("SCE") replaced and extended its current PPA with BHP Billiton Nickel West Pty Ltd. ("BHP"). SCE is composed of four generation facilities with a combined capacity of 245 MW in the Goldfields region of Western Australia. The new agreement became effective Dec. 1, 2020, and replaced the previous contract that was scheduled to expire Dec. 31, 2023. The amendment to the PPA extends the term to Dec. 31, 2038, and provides SCE with the exclusive right to supply thermal and electrical energy from the Southern Cross Facilities for BHP's mining operations located in the Goldfields region of Western Australia. The amendment preserves the PPA's current economic benefit to 2023, while also providing SCE a return on new capital investments that will be required to support BHP's future power requirements and recently announced emission reduction targets.

On Oct. 22, 2020, TEC Hedland Pty Ltd. ("TEC"), a subsidiary of TEA that owns the South Hedland Power Station, closed an AU$800 million senior secured note offering ("TEC Notes") by way of a private placement that is secured by, among other things, a first-ranking charge over all assets of TEC. The notes bear interest at 4.07 per cent per annum, payable quarterly, and maturing on June 30, 2042, with principal payments starting on March 31, 2022.

The fair value of the preferred shares tracking Australia Cash Flows for the year ended Dec. 31, 2020 reflects the change in expected future cash flows related to the updated BHP contract, including the 15-year extension and related capital investment to support the extended contract term and the updated financing structure, including the receipt of TEC Notes proceeds and the use of proceeds to redeem and settle certain financial instruments.

On July 29, 2021, the Company announced that SCE had reached an agreement to provide BHP with renewable electricity to its Goldfields-based operations through the construction of the Northern Goldfields Solar Project. The project includes the 27 MW Mount Keith Solar Farm, 11 MW Leinster Solar Farm, 10 MW/5MWh Leinster battery energy storage system and interconnecting transmission infrastructure, all of which will be integrated into existing 169 MW Southern Cross Energy North remote network in Western Australia. Construction activities are scheduled to start in the first quarter of 2022 with completion of the project expected in the second half of 2022. Total construction capital of the project is estimated at approximately AU$69 million to AU$73 million. This is the first major growth project agreed to under the extended PPA that was executed in October of 2020.

The fair value of the preferred shares tracking Australia Cash Flows for the year ended Dec. 31, 2021, reflects the change in cash flow assumptions, including changes in the discount rate, foreign exchange impacts and recontracting assumptions, partially offset by the continuation of Fortescue Metals Group Ltd. ("FMG") as a customer in respect of the South Hedland facility and the agreement with SCE to provide BHP with renewable electricity to its Goldfields-based operations through the construction of the Northern Goldfields Solar Project.

Preferred Shares Tracking Earnings and Distributions of US Wind and Solar Facilities

During 2021, the Company subscribed for additional tracking preferred shares in a subsidiary of TransAlta, tracking earnings and distributions of Big Level and Antrim for $7 million (US$6 million). During 2020, the Company subscribed for additional tracking preferred shares in a subsidiary of TransAlta tracking earnings and distributions of Big Level and Antrim for $72 million (US$52 million).

On Nov. 5, 2021, the Company acquired a 100 per cent economic interest in the 122 MW portfolio of 20 operating solar photovoltaic sites located in North Carolina (collectively, “North Carolina Solar”). The facility is secured by long-term PPAs with Duke Energy, which have an average remaining term of 12 years. Under the PPAs, Duke Energy receives the renewable electricity, capacity and environmental attributes from each facility. The Company acquired the economic interest in North Carolina Solar by acquiring a $127 million (US$102 million) investment in tracking preferred shares of a TransAlta subsidiary. This is classified and measured at FVTOCI.

On April 1, 2021, the Company completed the acquisition, through a subsidiary of TransAlta, of a 100 per cent economic interest in a 49 per cent economic interest in the 137 MW Skookumchuck wind facility. The Skookumchuck wind facility is contracted under a PPA until 2040 with an investment grade counterparty. The Company acquired the economic interest in the Skookumchuck wind facility by acquiring a $103 million investment in tracking preferred shares of a TransAlta subsidiary. The economic benefit was effective as at Jan. 1, 2021. This is classified and measured at FVTOCI.

The $7 million increase in fair value for the year ended Dec. 31, 2021, was primarily due to a decrease in discount rates, partially offset by $20 million of transaction costs related to the Skookumchuck wind facility and North Carolina Solar facility that were recognized through OCI, weakening forward merchant prices in the Eastern US region and foreign exchange impacts. The decrease in discount rates was mainly due to the movement of US treasury bond rates observed within the market.

The $46 million decrease in fair value for the year ended Dec. 31, 2020, related to the preferred shares tracking earnings and distributions of US Wind and Solar facilities was primarily due to an increase in discount rates, weakening forward merchant prices in the Eastern US region and foreign exchange impacts.

Preferred Shares Tracking Earnings and Distributions of US Gas

On April 1, 2021, the Company completed the acquisition, through a subsidiary of TransAlta, of a 100 per cent economic interest in the 29 MW Ada cogeneration facility. The Ada cogeneration facility is under a PPA until 2026. The Company acquired the economic interest in the Ada cogeneration facility by acquiring a $43 million investment in the tracking preferred shares of a TransAlta subsidiary. The economic benefit was effective as at Jan. 1, 2021. This is classified and measured at FVTOCI.

Redemption of Preferred Shares Tracking the Amortized Term Loan and Preferred Shares of TEA

On Jan. 24, 2020, TEA repaid AU$45 million of principal on the amortizing term loan owing to another subsidiary of TransAlta. As a result, pursuant to the terms of the tracking preferred shares that track this amortizing term loan a redemption was triggered that resulted in AU$45 million of the tracking preferred shares being redeemed, which was paid to the Company in Canadian dollars at spot rates. The redemption had the effect of creating a deficit balance related to the preferred shares tracking Australia Cash Flows, thereby reducing the ability to declare and pay dividends on the preferred shares tracking Australia Cash Flows in the first, second and third quarters of 2020. The deficiency was recouped in the fourth quarter of 2020.

On Oct. 23, 2020, the Company received $480 million (AU$515 million) of proceeds directly through the redemption of the preferred shares tracking the Amortizing Term Loan and the redemption of preferred shares of TEA.

The Company estimated the fair value of the Preferred Shares Tracking Australia Cash Flows and the Preferred Shares Tracking Earnings and Distributions of US Wind and Solar facilities and the US Gas facility utilizing significant unobservable inputs such as long-range forecast as part of a discounted cash flow model, as outlined in Note 11(B)(I)(c). Key assumptions in respect of significant unobservable inputs used in the Level III fair value measurement include the discount rate and the quarterly cash flows from the instrument and guarantee fees. The table below summarizes quantitative data regarding the unobservable inputs utilized in the discounted cash flow models:

Unobservable input	Dec. 31, 2021	Dec. 31, 2020
Preferred Shares Tracking Australia Cash Flows		
Discount rate	**5.5 %**	5.8 %
Quarterly cash flows (millions)	**Average of $11**	Average of $13
Preferred Shares Tracking Earnings and Distributions of US Wind and Solar Facilities		
Discount rate (range)	**5.8 %-8.5 %**	6.8 %-10.3 %
Quarterly cash flows (range, in millions)	**Average of $1-$4**	Average of $1-$4
Preferred Shares Tracking Earnings and Distributions of US Gas		
Discount rate	**12.4 %**	—
Quarterly cash flows (millions)	**Average of $3**	—

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, 2021	Change in fair value as at Dec. 31, 2020
Preferred Shares Tracking Australia Cash Flows			
Basis point change in discount rates	-50 basis points decrease	**28**	31
	+50 basis points increase	**(26)**	(28)
Quarterly cash flows	+5% increase[1]	**35**	39
	- 5% decrease[1]	**(35)**	(39)
Preferred Shares Tracking Earnings and Distributions of US Wind and Solar Facilities[2]			
Basis point change in discount rates	-50 basis points decrease	**24**	12
	+50 basis points increase	**(23)**	(11)
Quarterly cash flows	+5% increase[1]	**27**	16
	- 5% decrease[1]	**(27)**	(16)
Preferred Shares Tracking Earnings and Distributions of US Gas[3]			
Basis point change in discount rates	-50 basis points decrease	**—**	—
	+50 basis points increase	**—**	—
Quarterly cash flows	+5% increase[1]	**2**	—
	- 5% decrease[1]	**(2)**	—

(1) Quarterly cash flows could vary by a higher rate than the assumed five per cent factor.
(2) The fair value changes presented relate to Big Level and Antrim, Mass Solar, Lakeswind, Wyoming wind, Skookumchuck wind and North Carolina Solar in 2021 in total. The fair value changes in 2020 presented relate to Big Level and Antrim, Mass Solar, Lakeswind and Wyoming Wind in total.
(3) The fair value changes from the assumed discount rate changes as at Dec. 31, 2021, could vary but by less than $1 million.

8. Interest Income and Interest Expense

The components of interest income are as follows:

Year ended Dec. 31	2021	2020
Interest income on promissory notes due from subsidiaries of TransAlta (Note 16)	**1**	3
Other interest income	**5**	3
Interest income	**6**	6

The components of interest expense are as follows:

Year ended Dec. 31	2021	2020
Interest on long-term debt	**31**	34
Interest on lease obligations	**1**	1
Interest on TEA demand loan	**8**	1
Capitalized interest	**(7)**	—
Other net interest[1]	**4**	5
Interest on line loss rule proceeding (Note 23)	**—**	2
Accretion of provisions (Note 18)	**5**	3
Interest expense	**42**	46

(1) Consists of letters of credit and guarantees, credit facility commitments, other interest and banking fees. For the year ended Dec. 31, 2021, interest on guarantees pledged by TransAlta on behalf of the Company was $2 million (2020 — $2 million).

In 2021, the Company capitalized $7 million (2020 — nil) of interest to PP&E in at a weighted average rate of 4.70 per cent.

9. Income Taxes

A. Consolidated Statements of Earnings

I. Rate Reconciliation

Year ended Dec. 31	2021	2020
Earnings before income taxes	**150**	122
Net earnings attributable to non-controlling interests	**1**	(5)
Adjusted earnings before income taxes	**151**	117
Statutory Canadian federal and provincial income tax rate (%)[1]	**26.06%**	25.38%
Expected income tax expense	**39**	30
Increase (decrease) in income taxes resulting from:		
Non-taxable (deductible) capital gain	**(1)**	(6)
Adjustments in respect of deferred income tax of previous years	**(1)**	(2)
Statutory and other rate differences	**(2)**	2
Investment in subsidiary	**—**	16
Finance and interest income not subject to tax	**(26)**	(15)
Withholding tax	**2**	—
Income tax expense	**11**	25

[1] In 2021, the Company recognized a deferred income tax expense of nil (2020 – $2 million) related to changes in future tax rates..

II. Components of Income Tax Expense

The components of income tax expense are as follows:

Year ended Dec. 31	2021	2020
Current income tax expense	**2**	1
Adjustments in respect of deferred income tax of previous years	**(2)**	(2)
Deferred income tax expense resulting from changes in tax rates or laws[1]	**—**	2
Deferred income tax expense related to the origination and reversal of temporary differences	**11**	24
Income tax expense	**11**	25

[1] In 2021, the Company recognized a deferred income tax expense of nil (2020 – $2 million) related to changes in future tax rates.. The statutory blended tax rate for 2021 was 26.06 per cent (2020 — 25.38 per cent).

Year ended Dec. 31	2021	2020
Current income tax expense	**2**	1
Deferred income tax expense	**9**	24
Income tax expense	**11**	25

B. Components of Net Deferred Income Tax Liability

Significant components of the Company's net deferred income tax liability are as follows:

As at Dec. 31	2021	2020
Net operating and capital loss carryforwards[(1)]	**(52)**	(24)
Property, plant and equipment	**334**	296
Right-of-use assets and lease liabilities (net)[(2)]	**—**	1
Foreign exchange differences on AU-denominated debt	**—**	(1)
Risk management assets and liabilities, net	**(1)**	—
Net deferred income tax liability	**281**	272

(1) Net operating losses expire between 2031 and 2041.
(2) Net effect of recognizing right-of-use assets and lease liabilities under IFRS 16.

As at Dec. 31	2021	2020
Deferred income tax assets[(1)]	**(20)**	(18)
Deferred income tax liabilities	**301**	290
Net deferred income tax liability	**281**	272

(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 Company's long-range forecasts.

10. Non-Controlling Interest

The Company'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	2021	2020
Results of operations		
Revenues	**30**	45
Net earnings and total comprehensive income	**(5)**	28
Amounts attributable to the non-controlling interests:		
Net earnings and total comprehensive income	**(1)**	5

As at Dec. 31	2021	2020
Financial position		
Current assets	**331**	88
Long-term assets	**193**	442
Current liabilities[(1)]	**(224)**	(14)
Long-term liabilities[(1)]	**(14)**	(225)
Total equity	**(286)**	(291)
Equity attributable to non-controlling interests	**(49)**	(50)

(1) The increase in current liabilities and decrease in long-term liabilities is due to the Kent Hills Wind Bond being classified as current. See Note 17.

11. Financial Instruments and Risk Management

A. Financial Assets and Liabilities – Classification and Measurement

Financial assets and financial liabilities are measured on an ongoing basis at fair value or amortized cost.

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

Carrying value as at Dec. 31, 2021

	Derivatives - fair value through earnings	Amortized cost	Fair value through OCI	Total
Financial assets				
Cash and cash equivalents	—	244	—	244
Accounts receivable	—	120	—	120
Risk management assets (current)	1	—	—	1
Investments in subsidiaries of TransAlta	—	—	1,270	1,270
Other assets (loans receivable)[(1)]	—	55	—	55
Finance lease receivable	—	7	—	7
Financial liabilities				
Accounts payable and accrued liabilities	—	82	—	82
Dividends payable	—	63	—	63
Risk management liabilities[(1)]	4	—	—	4
TEA demand loan	—	167	—	167
Debt and lease obligations[(1)]	—	814	—	814

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

Carrying value as at Dec. 31, 2020

	Derivatives - fair value through earnings	Amortized cost	Fair value through OCI	Total
Financial assets				
Cash and cash equivalents	—	582	—	582
Accounts receivable	—	134	—	134
Investments in subsidiaries of TransAlta	—	—	1,087	1,087
Other assets (loans receivable)[(1)]	—	70	—	70
Finance lease receivable	—	7	—	7
Financial liabilities				
Accounts payable and accrued liabilities	—	51	—	51
Dividends payable	—	63	—	63
Risk management liabilities[(1)]	2	—	—	2
TEA demand loan	—	195	—	195
Debt and lease obligations[(1)]	—	692	—	692

(1) 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 Company has access. In the absence of an active market, the Company 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 Company looks primarily to external, readily observable market inputs. In limited circumstances, the Company uses inputs that are not based on observable market data.

The Company's financial instruments measured at fair value are as follows:

As at	**Dec. 31, 2021**		Dec. 31, 2020	
	Fair value Level II	**Fair value Level III**	Fair value Level II	Fair value Level III
Preferred shares tracking Australia Cash Flows	**—**	**697**	—	771
Preferred Shares Tracking Earnings and Distributions of US Wind and Solar Facilities	**—**	**539**	—	316
Preferred Shares Tracking Earnings and Distributions of US Gas	**—**	**34**	—	—
Net risk management liabilities	**(3)**	**—**	(2)	—

I. Level Determinations and Classifications

The Level I, II and III classifications in the fair value hierarchy utilized by the Company 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 Company 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 Company'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 interpolation formulas, where the inputs are readily observable.

In determining Level II fair values of other net risk management assets and liabilities, the Company 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 Company 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 and the preferred shares tracking the Amortizing Term Loan were determined by calculating an implied price based on an assessment of the yield to maturity. The preferred shares of TEA and the preferred shares tracking the Amortizing Term Loan were redeemed on Oct. 23, 2020.

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 Economic Interest Investments, the Company 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 the Economic Interest Investments used in the valuations. Management also develops assumptions in respect of ongoing financing and tax positions of the Economic Interest Investments. 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 7.

II. Commodity and Other Risk Management Assets and Liabilities

The Company'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 liabilities:

	Cash flow hedges	Non-hedges	
	Level II	**Level II**	**Total**
Net risk management liabilities at Dec. 31, 2021	**—**	**(3)**	**(3)**
Net risk management liabilities at Dec. 31, 2020	—	(2)	(2)

III. Financial Instruments – Not Measured at Fair Value

The carrying value of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, and dividends payable approximates their fair value at the Consolidated Statements of Financial Position date due to their short-term nature. The fair values of the loans receivable, TEA demand loan and the finance lease receivable approximate their carrying values.

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

As at	**Dec. 31, 2021**		Dec. 31, 2020	
	Fair value Level II	**Carrying value**	Fair value Level II	Carrying value
Loans receivable[1]	**55**	**55**	70	70
TEA demand loan	**167**	**167**	195	195
Long-term debt[2]	**801**	**792**	748	670

(1) Includes current portion and excludes interest income receivable.
(2) Includes current portion of long-term debt and excludes lease obligations.

The fair value of the 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 17 approximate their carrying values.

IV. Non-Hedges

a. Foreign Exchange Forward Contracts

The Company periodically enters into foreign exchange forward contracts to economically hedge future foreign denominated cash flows for which hedge accounting is not pursued. These items are classified as held for trading, and changes in the fair values associated with these transactions are recognized in net earnings.

Outstanding notional amounts and fair values associated with these forward contracts are as follows:

As at Dec. 31		**2021**	
Notional amount sold	**Notional amount purchased**	**Fair value liability**	**Maturity**
CAD188	**AUD200**	**(2)**	**2022**
AUD19	**CAD18**	**—**	**2022**

b. Commodity

The Company 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, 2021, is $3 million (2020 – $2 million). The outstanding commodity derivative instruments are as follows:

As at Dec. 31	**2021**		2020	
Type (thousands)	**Notional amount sold**	**Notional amount purchased**	Notional amount sold	Notional amount purchased
Electricity *(MWh)*	**71**	**—**	46	—
Natural gas *(GJ)*	**—**	**549**	—	237
Emissions *(MWh)*	**290**	**35**	175	35

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 Company by failing to discharge their obligations, and the risk to the Company associated with changes in creditworthiness of entities with which commercial exposures exist. The Company 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 Company 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 Company sets strict credit limits for each counterparty and monitors exposures on a daily basis. If credit limits are exceeded, the Company will request collateral from the counterparty or halt trading activities with the counterparty.

The Company 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 Company 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 Company.

The Company's maximum exposure to credit risk at Dec. 31, 2021, without taking into account collateral held or right of set-off, and including indirect exposures arising from the Company's investments in subsidiaries of TransAlta discussed in Note 7, is detailed as follows:

	Direct exposure	Indirect exposure[2]
Counterparty credit rating	Receivables[1]	Trade accounts receivable
Investment grade	**57**	**119**
Non-investment grade	**14**	**1**
TransAlta and subsidiaries of TransAlta	**113**	—
No external rating	**55**	**—**

(1) Includes trade accounts receivable, distributions receivable from subsidiaries of TransAlta, risk management assets and loans receivable.
(2) Includes accounts receivable and finance lease receivable of TEA. Receivables of US Wind and Solar and US Gas economic interest investments were approximately $16 million in total and are with investment grade and other high-quality counterparties.

The Company 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 Company will require security instruments such as parental guarantees, letters of credit, cash collateral or third-party credit insurance to reduce overall credit risk.

Amidst the current economic conditions resulting from the COVID-19 pandemic, TransAlta, on behalf of the Company, has implemented the following additional measures to monitor its counterparties for changes in their ability to meet obligations:

- Daily monitoring of events impacting counterparty creditworthiness and counterparty credit downgrades;
- Weekly oversight and follow-up, if applicable, of accounts receivables; and
- Review and monitoring of key suppliers, counterparties and customers (i.e., offtakers).

As needed, additional risk mitigation tactics will be taken to reduce the risk to the Company. These risk mitigation tactics may include, but are not limited to, immediate follow-up on overdue amounts, adjusting payment terms to ensure a portion of funds are received sooner, requiring additional collateral, reducing transaction terms and working closely with impacted counterparties on negotiated solutions.

II. Other Market Risks

The Company is exposed to market risks based on changes in the fair value of the preferred shares tracking Australia Cash Flows, and the preferred shares tracking earnings and distributions of the Economic Interest Investments. A five per cent increase (decrease) in the value of these securities would result in an $64 million increase (decrease) in OCI as at Dec. 31, 2021.

III. Liquidity Risk

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

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

	2022	2023	2024	2025	2026	2027 and thereafter	Total
Accounts payable and accrued liabilities	82	—	—	—	—	—	**82**
TEA demand loan[1]	167	—	—	—	—	—	**167**
Long-term debt[2]	263	94	52	54	51	283	**797**
Lease obligations[2]	1	1	1	1	1	17	**22**
Net risk management liabilities	2	1	—	—	—	—	**3**
Interest on debt and lease obligations[3]	36	19	17	15	13	68	**168**
Dividends payable	63	—	—	—	—	—	**63**
Total	**614**	**115**	**70**	**70**	**65**	**368**	**1,302**

(1) Scheduled maturity repayment of TEA demand loan on Oct. 26, 2022.
(2) Includes current portion.
(3) Not recognized as a financial liability on the Consolidated Statements of Financial Position.

IV. Foreign Currency Rate Risk

The Company has exposure to US and Australian dollars as a result of investments in subsidiaries of TransAlta. The Company mitigates the anticipated incremental exposure to the Australian and US dollar-denominated cash flows arising from these investments using foreign exchange forward contracts.

The possible effect on net earnings and OCI for the years ended Dec. 31, 2021 and 2020 due to changes in foreign exchange rates associated with financial instruments denominated in currencies other than the Company's functional currency is outlined below. The sensitivity analysis has been prepared using management's assessment that an average three cent (2020 – three 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	**2021**		2020	
Currency	**Net earnings decrease[1]**	**OCI gain[1]**	Net earnings increase[1]	OCI gain[1]
USD	**—**	**15**	—	11
AUD	**—**	**20**	(5)	19
Total	**—**	**35**	(5)	30

(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 when the future cash flows of financial instruments fluctuate due to changes in market interest rates, and can impact the Company's borrowing costs. All of the Company's long-term debt, except its credit facility, as described in Note 17, is comprised of fixed interest rate debt. The Company'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 Company's contractual profile minimizes commodity price risk as substantially all power is sold under long-term contracts.

12. 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, 2019	273	1,906	658	13	2,850
Additions	3	20	4	–	27
Disposals and retirements	–	(3)	(1)	–	(4)
Revisions and additions to decommissioning costs	3	1	(12)	–	(8)
Asset impairment	(2)	–	–	–	(2)
Transfers	–	(11)	1	3	(7)
As at Dec. 31, 2020	277	1,913	650	16	2,856
Additions	**3**	**72**	**6**	**–**	**81**
Acquisitions (Note 4)	**–**	**233**	**–**	**–**	**233**
Disposals and retirements	**–**	**(9)**	**–**	**–**	**(9)**
Revisions and additions to decommissioning costs (Note 18)	**–**	**117**	**–**	**–**	**117**
Asset impairment	**(3)**	**(12)**	**–**	**–**	**(15)**
Transfers	**–**	**–**	**1**	**(1)**	**–**
As at Dec. 31, 2021	**277**	**2,314**	**657**	**15**	**3,263**
Accumulated depreciation					
As at Dec. 31, 2019	100	663	359	–	1,122
Depreciation	8	76	37	–	121
Disposals and retirements	–	(3)	(1)	–	(4)
As at Dec. 31, 2020	108	736	395	–	1,239
Depreciation	**8**	**91**	**34**	**–**	**133**
Disposals and retirements	**–**	**(6)**	**–**	**–**	**(6)**
As at Dec. 31, 2021	**116**	**821**	**429**	**–**	**1,366**
Carrying amount					
As at Dec. 31, 2020	169	1,177	255	16	1,617
As at Dec. 31, 2021	**161**	**1,493**	**228**	**15**	**1,897**

Acquisition of WindCharger Battery Storage Project from TransAlta Corporation

On Aug. 1, 2020, the Company acquired the 10 MW/20 MWh WindCharger battery storage project that is connected to the Alberta transmission system through the Summerview 2 wind facility substation from a subsidiary of TransAlta for $12 million. The Company funded the remaining construction cost and the facility commenced commercial operation on Oct. 15, 2020. TransAlta received $7 million in co-funding for construction costs from Emissions Reduction Alberta.

Asset Impairment

During the fourth quarter of 2021, an impairment charge of $5 million was recorded at one of the hydro facilities, which includes a reduction to the carrying value of $3 million and $2 million related to changes in the decommissioning and restoration liability.

During 2021, the Company recorded an impairment of $10 million for a wind asset as result of an increase in estimated decommissioning costs after the review of a recent engineering study and $2 million related to the Kent Hills Wind LP tower failure. In addition, the Company has recorded $12 million of accelerated depreciation relating to the 50 foundations that will be replaced at the Kent Hills 1 and 2 facilities.

The impairment on the wind assets relating to the reclamation costs, resulting fair value measurement less cost of disposal is categorized as a Level III fair value measurement and the Company has adjusted the expected value down to $65 million using discount rates of 5.0 per cent (Dec. 31, 2020 — 5.3 per cent). The key assumptions impacting the determination of fair value are electricity production, sales prices and cost inputs, which are subject to measurement uncertainty.

13. Finance Lease Receivable

On Aug. 1, 2020, the Company acquired the 10 MW/20 MWh WindCharger battery storage project that began commercial operation on Oct. 15, 2020. The Company also executed a 20-year battery storage usage contract with TransAlta in which TransAlta will pay a fixed monthly capacity charge for the exclusive right to operate and dispatch the battery in the Alberta market. Amounts receivable under the Company's finance lease associated with the WindCharger battery storage project are as follows:

As at Dec. 31	2021		2020	
	Minimum lease receipts	Present value of minimum lease receipts	Minimum lease receipts	Present value of minimum lease receipts
Within one year	**1**	**1**	1	1
Second to fifth years inclusive	**3**	**2**	3	2
More than five years	**12**	**4**	13	4
	16	**7**	17	7
Less: unearned finance lease income	**9**	**—**	10	—
Total finance lease receivables	**7**	**7**	7	7

14. Right-of-Use Assets and Leases

The Company leases land, buildings, vehicles and various types of equipment. Lease contracts are typically entered into for fixed periods. Leases are negotiated on an individual basis and include a range of different terms and conditions.

A reconciliation of the changes in the carrying amount of the right-of-use assets is as follows:

	Land	Other[1]	Total
Dec. 31, 2019	21	7	28
Amortization	(1)	—	(1)
As at Dec. 31, 2020	20	7	27
Remeasurements of the lease liability	**(1)**	**—**	**(1)**
Amortization	**(1)**	**(1)**	**(2)**
Acquisition (Note 4)	**2**	**—**	**2**
As at Dec. 31, 2021	**20**	**6**	**26**

(1) Other right-of-use assets include equipment, vehicles and buildings.

For further information regarding recognized lease liabilities see Note 17.

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, 2019	209	14	223
Additions	—	1	1
As at Dec. 31, 2020	209	15	224
As at Dec. 31, 2021	**209**	**15**	**224**
Accumulated amortization			
As at Dec. 31, 2019	98	11	109
Amortization	11	1	12
As at Dec. 31, 2020	109	12	121
Amortization	**10**	**1**	**11**
As at Dec. 31, 2021	**119**	**13**	**132**
Carrying amount			
As at Dec. 31, 2020	100	3	103
As at Dec. 31, 2021	**90**	**2**	**92**

(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, 2021	Dec. 31, 2020
Big Level and Antrim promissory notes	—	18
Kent Hills Wind LP loan receivable	**55**	52
Prepaid expenses	**9**	4
Total other assets	**64**	74
Less: current portion	**(57)**	(20)
Total long-term other assets	**7**	54

The promissory notes and loan 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 Company manages the loans receivable under a business model in which it will collect the contractual cash flows.

During 2021, the Company received the final repayment of $18 million (US$14 million) of the outstanding promissory notes.

The Company's subsidiary, Kent Hills Wind LP, as at Dec. 31, 2021 has advanced $55 million (2020 – $52 million) of the Kent Hills Wind bond consisting mainly of bond financing proceeds to its 17 per cent partner. The loan bears interest at 4.55 per cent, with interest payable quarterly, is unsecured and matures on Oct. 2, 2022. The balance of the loan receivable as at Dec. 31, 2021, was $55 million (2020 – $52 million). The entirety of the loan receivable balance is current.

Other assets also includes prepaid expenses of $9 million at Dec. 31, 2021 (2020 – $4 million). A portion of the prepaid expenses consist of management fees, which are described in Note 24(B)(II).

17. TEA Demand Loan, Debt and Lease Obligations

A. Amounts Outstanding

As at	Dec. 31, 2021			Dec. 31, 2020		
	Carrying value	**Face value**	**Interest[1]**	Carrying value	Face value	Interest[1]
TEA demand loan[2]	**167**	**167**	**4.32 %**	195	195	4.32 %
Long-term debt:						
Pingston bond	**45**	**45**	**2.95 %**	45	45	2.95 %
Melancthon Wolfe Wind bond	**235**	**237**	**3.83 %**	268	270	3.83 %
New Richmond Wind bond	**120**	**121**	**3.96 %**	127	128	3.96 %
Kent Hills Wind bond	**221**	**221**	**4.45 %**	230	233	4.45 %
Windrise Green bond	**171**	**173**	**3.41 %**	—	—	— %
Total long-term debt	**792**	**797**		670	676	
Lease obligations	**22**			22		
	814			692		
Less: current portion of long-term debt	**(263)**			(52)		
Less: current portion of lease obligations	**(1)**			(1)		
Total long-term debt and lease obligations	**550**			639		

(1) Interest rate reflects the stipulated rate or the average rate weighted by principal amounts outstanding.
(2) Principal amount of AU$200 million.

The **TEA demand loan** is unsecured, due on demand and bears interest at 4.32 per cent, with interest payable quarterly until maturity on Oct. 26, 2022. On Oct. 27, 2021, the Company repaid TransAlta Energy (Australia), AU$17 million of the AU$200 million principal upon demand.

Credit Facility: The Company has a $700 million committed syndicated credit facility, of which $602 million was available as at Dec. 31, 2021 (2020 – $608 million) including the undrawn letters of credit. The Company is in compliance with the terms of the credit facility.

The $700 million credit facility is the primary source for short-term liquidity after the cash flow generated from the Company'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 2025.

The Canadian credit facility references USD LIBOR for US-dollar drawings and the Canadian Dollar Offered Rate for Canadian drawings. As at Dec. 31, 2021, there were no drawings under the credit facility and no financial impact from the phasing out of LIBOR.

The **Pingston bond** bears interest at 2.95 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, 2021, had a carrying value of $42 million (2020 – $43 million).

The **Melancthon Wolfe Wind bond** bears interest at 3.83 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 facilities, which at Dec. 31, 2021, had a combined carrying value of $505 million (2020 – $510 million). As at Dec. 31, 2021, the bonds have a rating of BBB+ from Dominion Bond Rating Service Limited, upgraded from BBB on Oct 30, 2020.

The **New Richmond Wind bond** bears interest at 3.96 per cent, with principal and interest payable semi-annually in blended payments until maturity on June 30, 2032. The New Richmond Wind 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 facilities, which at Dec. 31, 2021, had a carrying value of $165 million (2020 – $169 million).

The **Kent Hills Wind bond** issued in October 2017, bears interest at 4.45 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 facilities, which at Dec. 31, 2021, had a combined carrying value of $182 million (2020 – $198 million).

The Kent Hills wind facilities consists of 50 turbines at Kent Hills 1 and 2 and 5 turbines at Kent Hills 3. Following independent engineering assessments and root cause failure analysis, it was determined that all 50 turbine foundations at the Kent Hills 1 and 2 sites require full foundation replacements.

As a result of the determination that all 50 foundations require replacement, as well as certain resulting amendments to applicable insurance policies, the Company has provided notice to BNY Trust Company of Canada, as trustee (the “Trustee”) that events of default may have occurred under the trust indenture governing the terms of the bonds (the "KH Bonds"). Upon the occurrence of any events of default, holders of more than 50 per cent of the outstanding principal amount of the KH Bonds have the right to direct the Trustee to declare the principal and interest on the KH Bonds and all other amounts due, together with any make-whole amount (Dec. 31, 2021 — $39 million), to be immediately due and payable and to direct the Trustee to exercise rights against certain collateral. The Company intends to engage in discussions with the Trustee and holders of the KH Bonds to negotiate required waivers and amendments while the Company works to remedy the matters described in the notice. Although the Company expects that it will reach agreement with the Trustee and holders of the KH Bonds with respect to terms of an acceptable waiver and amendment, there can be no assurance that the Company will receive such waivers and amendments. The Company has classified the entire carrying value of the bond as a current liability as at Dec. 31, 2021.

On Dec. 6, 2021, TransAlta completed a secured green bond offering by way of private placement for approximately $173 million. The **Windrise Green bond** bears interest at 3.41 per cent per annum and matures on Sept. 30, 2041. The Windrise Green bond is secured by a first ranking charge over all of the assets of the issuer, Windrise LP, which primarily includes the Windrise wind facility, which at Dec. 31, 2021, had a combined carrying value of $297 million. Payments on the bonds will be interest-only to and including Dec. 31, 2022, with quarterly blended payments of principal and interest commencing on March 31, 2023.

B. Restrictions

The Melancthon Wolfe Wind, Pingston, New Richmond Wind, Kent Hills Wind and Windrise Green bonds are subject to customary financing conditions and covenants that may restrict the Company’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 2022. As at Dec. 31, 2021, $41 million of cash was subject to these financial restrictions (2020 – $24 million).

Proceeds received from the Windrise Green bond financing in the amount of $23 million are not able to be accessed by other Corporate entities as the funds must be solely used by the project entity for the purpose of paying construction costs.

Kent Hills Wind LP funds available for distribution are not able to be accessed by other Corporate entities due to events of default that are under review.

C. Covenants

As of Dec. 31, 2021, the Company was in compliance with all positive and negative covenants related to its debt except for the KH Bonds.

D. Restricted Cash

The Company has no restricted cash as at Dec. 31, 2021 and Dec. 31, 2020.

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

E. Principal Repayments of Debt

Principal repayments	2022	2023	2024	2025	2026	2027 and thereafter	Total
TEA demand loan[1]	167	—	—	—	—	—	**167**
Long-term debt[2]	263	94	52	54	51	283	**797**

(1) Scheduled maturity repayment of TEA demand loan on Oct. 26, 2022.
(2) Includes current portion.

F. Letters of Credit

The Company has an uncommitted $150 million demand letter of credit facility, under which $98 million in letters of credit have been issued as at Dec. 31, 2021 (2020 – $92 million). Letters of credit are issued to counterparties under various contractual arrangements with the Company and certain subsidiaries of the Company. If the Company 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 Company 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:

	2021	2020
Balance, Jan. 1	**51**	56
Acquisition	**8**	—
Accretion	**5**	3
Revisions in estimated cash flow	**115**	(15)
Revisions in discount rates	**(4)**	7
Balance, Dec. 31	**175**	51

	2021	2020
Balance, Dec. 31	**175**	51
Non-current portion	**175**	51

During the third quarter of 2021, the Company adjusted the wind assets decommissioning and restoration provision as estimates were updated after the review of a recent engineering study. The Company's current best estimate of the decommissioning and restoration provision increased by $113 million, which also resulted in an increase in the related assets in PP&E.

In the fourth quarter of 2020, the Company adjusted the Sarnia decommissioning and restoration provision to reflect an updated engineering study. The Company’s best estimate of the decommissioning and restoration provision decreased by $15 million. This resulted in a decrease in the related assets in PP&E.

The Company estimates that the undiscounted amount of cash flows required to settle the decommissioning and restoration obligations is approximately $481 million (2020 – $185 million), which will be incurred between 2029 and 2050. The majority of the costs will be incurred between 2035 and 2045.

19. Common Shares

A. Authorized and Outstanding

The Company 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	2021		2020	
	Common shares *(millions)*	**Amount *(millions)***	Common shares *(millions)*	Amount *(millions)*
Issued and outstanding, beginning of year	**266.9**	**3,059**	265.6	3,039
Dividend reinvestment plan[1]	**—**	**—**	1.3	20
Issued and outstanding, end of year	**266.9**	**3,059**	266.9	3,059

(1) The dividend reinvestment plan was suspended in the fourth quarter of 2020.

B. Dividends

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

The following table summarizes the common share dividends declared in 2021 and 2020:

Dividends declared	Total dividends per share	Total dividends	TransAlta	Other shareholders
Year ended Dec. 31, 2021	**0.93996**	**251**	**151**	**100**
Year ended Dec. 31, 2020	0.93996	251	151	100

On Oct. 25, 2021, the Company declared a monthly dividend of $0.07833 per common share payable on Jan. 31, 2022, Feb. 28, 2022, and Mar. 31, 2022.

On Feb. 17, 2022, the Company declared a monthly dividend of $0.07833 per common share payable on April 29, 2022, May 31, 2022, and June 30, 2022.

C. Dividend Reinvestment Plan ("DRIP") Suspended

In the fourth quarter of 2020, the Company suspended its DRIP in respect of any future declared dividends until further notice. Accordingly, the dividend payable on Oct. 30, 2020, to shareholders of record on Oct. 15, 2020, was the last dividend payment eligible for reinvestment by participating shareholders under the DRIP. Subsequent dividends will be paid only in cash. Upon any reinstatement of the DRIP, plan participants enrolled in the DRIP at the time of its suspension who remain enrolled at the time of its reinstatement will automatically resume participation in the DRIP.

20. Cash Flow Information

A. Change in Non-Cash Operating Working Capital

Year ended Dec. 31	2021	2020
Source (use):		
Accounts receivable	**2**	(34)
Inventory	**(1)**	—
Accounts payable and accrued liabilities	**12**	3
Change in non-cash operating working capital	**13**	(31)

B. Changes in Liabilities from Financing Activities

	As at Jan. 1, 2021	Cash inflows	Cash outflows	Other	As at Dec. 31, 2021
Dividends payable	**63**	**—**	**(251)**	**251**	**63**
TEA demand loan	**195**	**—**	**(18)**	**(10)**	**167**
Long-term debt[1]	**670**	**173**	**(52)**	**1**	**792**
Lease obligations	**22**	**—**	**(1)**	**1**	**22**
Total liabilities from financing activities	**950**	**173**	**(322)**	**243**	**1,044**

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

	As at Jan 1, 2020	Cash inflows	Cash outflows	Other	As at Dec. 31, 2020
Dividends payable	62	—	(231)	232	63
TEA demand loan	—	188	—	7	195
Long-term debt[1]	938	—	(271)	3	670
Lease obligations	23	—	(1)	—	22
Total liabilities from financing activities	1,023	188	(503)	242	950

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

21. Capital

The Company's capital management objectives are to ensure it is able to support day-to-day operations, meet required financial obligations, provide for growth opportunities and ensure stable and predictable distributions to shareholders.

The Company's capital comprised the following:

As at Dec. 31	**2021**	2020
TEA demand loan	**167**	195
Current portion of long-term debt and lease obligations	**264**	53
Long-term debt and lease obligations	**550**	639
Less: available cash and cash equivalents	**(244)**	(582)
Total net debt	**737**	305
Equity		
Common shares	**3,059**	3,059
Deficit	**(907)**	(796)
Accumulated other comprehensive income	**(78)**	(8)
Non-controlling interest	**49**	50
Total capital	**2,860**	2,610

In 2021, the Company's percentage of total net debt to capital was higher than 2020. Total debt increased due to issuance of the Windrise Green bond, partially offset by repayments on the Melancthon Wolfe Wind bond, New Richmond Wind bond, Kent Hills Wind bond, and TEA demand loan. Cash and cash equivalents decreased compared to 2020, mainly due to the acquisition of the Windrise wind project, and economic interests in the Ada cogeneration facility, the Skookumchuck wind facility and the North Carolina Solar facility. See Note 4 and Note 7 for further details.

The Melancthon Wolfe Wind bond of $237 million (2020 – $270 million), the Pingston bond of $45 million (2020 – $45 million), the New Richmond Wind bond of $121 million (2020 – $128 million), the Kent Hills Wind bond of $221 million (2020 – $233 million) and the Windrise Green bond of $173 million are subject to customary financing restrictions, which restrict the Company's ability to access funds generated by the facilities' operations (see Note 17).

Dividends on the Company'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.

22. Joint Operations

The Company's joint operations at Dec. 31, 2021, and 2020, include the following:

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

23. Commitments and Contingencies

A. Contracts for Goods and Services

In the ordinary course of operations, the Company routinely enters into contracts for the purchase of goods and services and for leases of equipment. The Company also has several long-term service agreements in place for repairs and maintenance that may be required at its gas facility and on turbines at wind facilities. In addition, the Company has entered into the Management Agreement with TransAlta for general, administrative and operational services (Note 24)

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

	Long-term service agreements[1]	General administrative services[2]	Other[3]	Total
2022	89	21	24	**134**
2023	46	24	8	**78**
2024	43	21	2	**66**
2025	32	21	2	**55**
2026	25	18	2	**45**
2027 and thereafter	54	105	37	**196**
Total	**289**	**210**	**75**	**574**

(1) Long-term service agreements for wind and gas facilities including economic interests.
(2) Includes the asset management and optimization fees for the Company's Sarnia cogeneration facility.
(3) Includes land access, other leases, purchase contracts and natural gas purchase and transportation. Includes economic interests.

B. Guarantees

As part of the acquisition of the Australian Assets, the Company 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 Company 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 on or after May 7, 2015. As at Dec. 31, 2021, the total amounts guaranteed by the Company were $516 million (2020 – $540 million).

As consideration for this indemnity, TransAlta is required to pay the Company the Canadian-dollar equivalent of the guarantor fees it receives from TEA in respect of any of the TEA Guarantees.

C. Litigation

Transmission Line Loss Rule Proceeding

The Company has been participating in a transmission 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 AESO to recalculate loss factors for 2006 to 2016. The AUC approved an invoice settlement process and all three planned settlements have been received. The first two invoices were settled by the first quarter of 2021 and the third invoice settled in the second quarter of 2021. The true-up invoices issued by the AESO in the fourth quarter of 2021 were settled by Dec. 31, 2021, with no further invoices expected.

Fortescue Metals Group Ltd. Dispute at South Hedland Power Station

The Company's investment in the Australian assets is through an economic interest that provides after-tax finance income based on EBITDA of the underlying facilities, after deducting debt-service and sustaining capital expenditures. On May 2, 2021, TransAlta entered into a conditional settlement with FMG. The settlement was concluded and the actions were formally dismissed in the Supreme Court of Western Australia on Dec. 7, 2021. The settlement amount has been captured in finance income in the fourth quarter of 2021. The settlement has resulted in FMG continuing as a customer of FMG in respect of the South Hedland facility.

Sarnia Outages

The Sarnia cogeneration facility experienced three separate outage events between May 19 and June 9, 2021, that resulted in steam interruptions to its industrial customers. As a result, the customers have submitted claims for liquidated damages. Steam supply interruptions of this nature are atypical and infrequent at the Sarnia cogeneration facility. The Company conducted an investigation to determine the root cause of each of the three events, which concluded that all three events do not qualify as events of force majeure. As such, liquidated damages in an amount dictated by the applicable agreements are payable by the Company to the customers for the three outages and have been accrued within contract liabilities.

24. Related-Party Transactions and Balances

The Company 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 7) and interest income related to promissory notes due from subsidiaries of TransAlta (Note 8). Also, all derivatives of the Company are entered into on behalf of the Company by a subsidiary of TransAlta.

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

Year ended Dec. 31	**2021**	2020
Revenue from TransAlta PPAs *(I)*	**40**	44
Revenue from environmental attributes[(1)]	**19**	6
G&A Reimbursement Fee*(II)*	**16**	17
Natural gas purchases *(III)*	**11**	2
Financial power swap sales – (gains) *(III)*	**—**	(1)
Interest expense on TEA demand loan (Note 17)	**8**	1
Asset optimization fee[(2)]	**2**	2
Interest expense on credit facility and guarantee fees	**2**	2

(1) The value of the environmental attributes was determined by reference to market information for similar instruments, including historical transactions with third parties.
(2) A subsidiary of TransAlta provides asset management and optimization services for the Company's Sarnia cogeneration facility. The Sarnia cogeneration facility 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.

All of the above transactions are with TransAlta or subsidiaries of TransAlta.

I. TransAlta PPAs

The Company 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 Company. As reimbursement for the services provided, the Company pays TransAlta a fee (the "G&A Reimbursement Fee"), adjusted annually for changes in the CPI. The G&A Reimbursement Fee is calculated based on five per cent of adjusted EBITDA of the immediately prior fiscal quarter without duplication for any indirect costs associated with the management, administrative, accounting, planning and other head office costs of TransAlta that reduce the dividends or distributions that would otherwise be payable to the Company on any of the tracking preferred shares.

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 Company'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 Company's subsidiary, TransAlta (SC) LP, 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 from TEMC priced at the ICE NGX Union Gas Dawn Day-Ahead Index (previously NGX Union Dawn Daily Spot Price) published by the Canadian Gas Price Reporter on the day the gas is burned;
- TEMC will purchase all customer make-up gas from Sarnia at the ICE NGX Union Gas 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 Gas 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, TransAlta (SC) LP remains responsible for all storage and transportation costs, which are based on the volumes of gas transported on the Union Gas pipeline from the hub to the facility.

B. Related-Party Balances

Related-party balances include the investments in subsidiaries of TransAlta disclosed in Note 7, the risk management assets and liabilities disclosed in Note 11, the finance lease receivable related to the WindCharger battery storage project in Note 13, the Big Level and Antrim promissory notes in Note 16, the TEA demand loan in Note 17 and the guarantees provided by the Company on behalf of TransAlta and TEA disclosed in Note 23.

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

As at Dec. 31	**2021**	2020
Trade and other receivables	**50**	39
Accounts payable and accrued liabilities (including interest payable)	**11**	11
Dividends payable	**38**	38
TEA Guarantees[(1)]	**516**	540
Guarantees provided by TransAlta on behalf of the Company *(I)*	**583**	207
Long-term prepaid — management fee *(II)*	**2**	2

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

I. Guarantees

Guarantees include those provided by TransAlta for the Company and for Economic Interest Investments. If the Company or the Economic Interest Investments do not perform under the related guarantee agreements, the counterparty may present a claim for payment from TransAlta.

II. Long-Term Prepaid – Management Fee

In the fourth quarter of 2018, the Company paid a $2 million one-time upfront fee upon achieving commercial operation of Kent Hills 3, which will be recognized over a 30-year period, 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 Company’s key management personnel include the members of its Board and its Corporate Officers. Key management personnel services for 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, 2021 (2020 – $2 million).

25. Significant Customers

In addition to revenue from TransAlta (see Note 24), which represented 12 per cent of total revenues (2020 – 11 per cent), the Company had revenues from two customers (2020 – two customers) that exceeded 10 per cent of the Company’s total revenues at 27 per cent (2020 – 49 per cent).

26. Segment Disclosures

A. Description of Reportable Segments

The following tables provide each segment's results in the format that the Chief Operating Decision Maker ("CODM") organizes its segments to make operating decisions and assess performance. The CODM assesses the performance of the operating segments based on a measure of adjusted EBITDA. This measurement basis represents earnings before income taxes, adjusted for the effects of: depreciation of property, plant and equipment and amortization of intangibles, depreciation of right-of-use assets, finance costs (income), unrealized mark-to-market gains and losses, changes in fair value of financial assets, foreign exchange gains and losses and asset impairments, plus the adjusted EBITDA of the facilities in which we hold an economic interest, which is the facilities' reported earnings before income taxes adjusted for the previously stated items, finance lease income and the change in the finance lease receivable amount, contractually fixed management costs, interest earned on the prepayment of certain transmission costs and insurance recovery. The tables below show the reconciliation of the total segmented results and adjusted EBITDA to the statement of earnings (loss) reported under IFRS. Prior periods have been adjusted for comparable purposes.

For internal reporting purposes, the earnings information from the Company's economic interests have been presented. Proportionate financial information is not, and is not intended to be, presented in accordance with IFRS. The tables below show the reconciliation of the total segmented results to the statement of earnings reported under IFRS.

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

I. Reconciliation of Adjusted EBITDA to Earnings Before Income Tax

	Owned Assets				Economic Interests					
Year ended Dec. 31, 2021	**Canadian Wind**	**Canadian Hydro**	**Canadian Gas**	**Corporate**	**US Wind and Solar[1]**	**US Gas[1]**	**Australian Gas**	**Total**	**Investments in economic interests and adjustments**	**IFRS financials**
Revenues[2]	224	29	217	—	100	22	182	774	(304)	470
Fuel, royalties and other costs[3]	10	3	119	—	2	10	5	149	(17)	132
Gross margin	214	26	98	—	98	12	177	625	(287)	338
Operations, maintenance, and administration[4]	38	7	30	19	15	4	36	149	(55)	94
Taxes, other than income taxes	6	2	—	—	5	—	—	13	(5)	8
Adjusted EBITDA[5]	170	17	68	(19)	78	8	141	463	(227)	236
Depreciation and amortization										(150)
Asset impairment charge										(17)
Finance income related to subsidiaries of TransAlta										108
Interest income										6
Interest expense										(42)
Foreign exchange gain										8
Finance lease income										1
Earnings before income tax										150

(1) US Wind and Solar includes the Skookumchuck wind facility and the North Carolina Solar facility, which were acquired on Apr. 1, 2021, and Nov. 5, 2021, respectively. US Gas includes the Ada cogeneration facility which was acquired through investment in tracking preferred shares on Apr. 1, 2021. The economic benefit of the Skookumchuck and Ada transactions were effective as at Jan. 1, 2021, and the economic benefit of the North Carolina Solar transaction was effective Nov. 5, 2021 .

(2) Adjusted EBITDA excludes the impact of unrealized mark-to-market gains or losses. Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable.

(3) Amounts related to economic interests include interest earned on the prepayment of certain transmission costs.

(4) Amounts related to economic interests include the effect of contractually fixed management costs.

(5) Adjusted EBITDA is a non-IFRS measure and has no standardized meaning under IFRS.

Year ended Dec. 31, 2020	Owned Assets				Economic Interests					
	Canadian Wind	Canadian Hydro	Canadian Gas	Corporate	US Wind and Solar	US Gas	Australian Gas	Total	Investments in economic interests	IFRS financials
Revenues[1]	243	30	163	—	91	—	162	689	(253)	436
Fuel, royalties and other costs[2]	21	2	54	—	2	—	6	85	(8)	77
Gross margin	222	28	109	—	89	—	156	604	(245)	359
Operations, maintenance, and administration[3]	35	6	28	20	12	—	31	132	(43)	89
Taxes, other than income taxes	6	1	1	—	2	—	—	10	(2)	8
Adjusted EBITDA[4]	181	21	80	(20)	75	—	125	462	(200)	262
Depreciation and amortization										(135)
Asset impairment charge										(2)
Finance income related to subsidiaries of TransAlta										69
Interest income										6
Interest expense										(46)
Change in fair value of financial assets										(59)
Foreign exchange gain										27
Earnings before income tax										122

(1) Adjusted EBITDA excludes the impact of unrealized mark-to-market gains or losses. Amounts related to economic interests include finance lease income adjusted for change in finance lease receivable.
(2) Amounts related to economic interests include interest earned on the prepayment of certain transmission costs.
(3) Amounts related to economic interests include the effect of contractually fixed management costs.
(4) Adjusted EBITDA is a non-IFRS measure and has no standardized meaning under IFRS.

II. Selected Consolidated Statements of Financial Position Information

Year ended Dec. 31, 2021	**Canadian Wind**	**Canadian Hydro**	**Canadian Gas**	**Total**
PP&E	**1,502**	**161**	**234**	**1,897**
Right-of-use assets	**22**	**4**	**—**	**26**
Intangible assets	**89**	**2**	**1**	**92**

Year ended Dec. 31, 2020	Canadian Wind	Canadian Hydro	Canadian Gas	Total
PP&E	1,186	169	262	1,617
Right-of-use assets	22	5	—	27
Intangible assets	100	2	1	103

III. Selected Consolidated Statements of Cash Flows Information

Year ended Dec. 31, 2021	**Canadian Wind**	**Canadian Hydro**	**Canadian Gas**	**Total**
Additions to non-current assets:				
PP&E	**285**	**3**	**6**	**294**

Year ended Dec. 31, 2020	Canadian Wind	Canadian Hydro	Canadian Gas	Total
Additions to non-current assets:				
PP&E	20	3	4	27
Intangible assets	1	—	—	1