



**TransAlta Corporation
Annual Information Form for the
Year Ended December 31, 2021**

February 23, 2022

Table of Contents

PRESENTATION OF INFORMATION	3
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	3
DOCUMENTS INCORPORATED BY REFERENCE	4
CORPORATE STRUCTURE	5
OVERVIEW	7
GENERAL DEVELOPMENT OF THE BUSINESS	12
BUSINESS OF TRANSALTA	21
ENVIRONMENTAL RISK MANAGEMENT	44
RISK FACTORS	49
EMPLOYEES	60
CAPITAL AND LOAN STRUCTURE	60
CREDIT RATINGS	72
DIVIDENDS	74
MARKET FOR SECURITIES	77
DIRECTORS AND OFFICERS	82
INTERESTS OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS	89
INDEBTEDNESS OF DIRECTORS, EXECUTIVE OFFICERS AND SENIOR OFFICERS	89
CORPORATE CEASE TRADE ORDERS, BANKRUPTCIES OR SANCTIONS	89
MATERIAL CONTRACTS	89
CONFLICTS OF INTEREST	90
LEGAL PROCEEDINGS AND REGULATORY ACTIONS	90
TRANSFER AGENT AND REGISTRAR	91
INTERESTS OF EXPERTS	91
ADDITIONAL INFORMATION	91
AUDIT, FINANCE AND RISK COMMITTEE	92
AUDIT, FINANCE AND RISK COMMITTEE CHARTER	A- 1
GLOSSARY OF TERMS	B- 1

Presentation of Information

Unless otherwise noted, the information contained in this annual information form ("Annual Information Form" or "AIF") is given as at or for the year ended Dec. 31, 2021. All dollar amounts are in Canadian dollars unless otherwise noted. Unless the context otherwise requires, all references to the "Company" and to "TransAlta," "we," "our" and "us" herein refer to TransAlta Corporation and its subsidiaries, including TransAlta Renewables Inc., on a consolidated basis. Reference to "TransAlta Corporation" herein refers to TransAlta Corporation, excluding its subsidiaries. Capitalized terms not defined in the body of this AIF shall have their respective meanings set forth in Appendix "B" – Glossary of Terms hereto.

Special Note Regarding Forward-Looking Statements

This Annual Information Form, including the documents incorporated herein by reference, includes "forward-looking information," within the meaning of applicable Canadian securities laws, and "forward-looking statements," within the meaning of applicable United States securities laws, including the *Private Securities Litigation Reform Act* of 1995 (collectively referred to herein as "forward-looking statements"). All forward-looking statements are based on our beliefs as well as assumptions based on information available at the time the assumption was made and on management's experience and perception of historical trends, current conditions and expected future developments, as well as other factors deemed appropriate in the circumstances. Forward-looking statements are not facts, but only predictions and generally can be identified by the use of statements that include phrases such as "may", "will," "can," "could," "would," "shall," "believe," "expect," "estimate," "anticipate," "intend," "plan," "forecast," "foresee," "potential," "enable," "continue" or other comparable terminology. These statements are not guarantees of our future performance, events or results and are subject to risks, uncertainties and other important factors that could cause our actual performance, events or results to be materially different from those set out in the forward-looking statements.

In particular, this Annual Information Form (or a document incorporated herein by reference) contains forward-looking statements including, but not limited to: our operating performance and transition to clean power generation, including our goal to have no generation from coal by the end of 2025; Clean Electricity Growth Plan and ability to achieve the target of 2 GW of incremental renewables capacity with an investment of \$3 billion by 2025; the Company's future growth pipeline, including the timing of commercial operations and the costs of the advanced and early-stage projects; the source of funding for the Clean Electricity Growth Plan; our transformation, growth, capital allocation and debt reduction strategies; growth opportunities from 2022 to 2030 and beyond; potential for growth in renewables and on-site and cogeneration assets, including the timing of commercial operation and cost for projects currently under development and construction; the White Rock East and White Rock West Wind Power Projects ("White Rock Wind Projects"), including the total construction costs, ability to secure tax equity financing, and the timing of commercial operation; the Garden Plain wind project, including construction capital; the Northern Goldfields Solar Project, including the total construction capital; the proportion of EBITDA to be generated from renewable sources by the end of 2025; the suspension of the Sundance 5 repowering project; expected average annual EBITDA of the North Carolina Solar (as defined below) portfolio; the incident at Kent Hills 1 and 2 wind facilities and the extent of any remediation, the timing and cost of such remediation, the ability to secure waivers in respect of the Kent Hills bonds for any potential event of default, and the impact such incident could have on the Company's revenues and contracts; expected increases to our cost per tonne of coal at Centralia; the expected impact and quantum of carbon compliance costs; the ability to realize future growth opportunities with BHP (as defined below); regulatory developments and their expected impact on the Company, including the Canadian federal climate plan and the implementation of the major aspects thereof (including increased carbon pricing and increased funding for clean technology); the ability of the Company to realize benefits from Canadian, US and Australian regulatory developments, including receiving funding for clean electricity projects; the potential increase in value of emission reduction credits; the cyclical nature of the business, including as it relates to maintenance costs, production and loads; expectations regarding refinancing the debt maturing in 2022; and the Company continuing to maintain a strong financial position and significant liquidity.

The forward-looking statements contained in this Annual Information Form (or a document incorporated herein by reference) are based on many assumptions including, but not limited to, the following material assumptions: impacts arising from COVID-19 not becoming significantly more onerous on the Company, which includes the Company being permitted to continue as an essential service; merchant power prices in Alberta and the Pacific Northwest; our proportionate ownership of TransAlta Renewables not changing materially; no material decline in the dividends expected to be received from TransAlta Renewables; the expected life extension of the coal fleet and anticipated financial results generated on conversion; assumptions regarding the ability of the converted units to successfully compete in the Alberta energy-only market; and assumptions regarding our current strategy and priorities, including as it pertains to our ability to realize the full economic benefit from the capacity, energy and ancillary services from our Alberta hydro assets.

Forward-looking statements are subject to a number of significant risks, uncertainties and assumptions that could cause actual plans, performance, results or outcomes to differ materially from current expectations. Factors that may adversely impact what is expressed or implied by forward-looking statements contained in this AIF (or a document incorporated herein by reference) include, but are not limited to: the impact of COVID-19, including more restrictive directives of government and public health authorities; increased force majeure claims; reduced labour availability and ability to continue to staff our operations and facilities; disruptions to our supply chains, including our ability to secure necessary equipment and to obtain regulatory approvals on the expected timelines or at all in respect of our growth projects; restricted access to capital and increased borrowing costs; changes in short-term and/or long-term electricity supply and demand; fluctuations in market prices, including lower merchant pricing in Alberta, Ontario and Mid-Columbia; reductions in production; increased costs; a higher rate of losses on our accounts receivables due to credit defaults; impairments and/or write-downs of assets; adverse impacts on our information technology systems and our internal control systems, including increased cybersecurity threats; commodity risk management and energy trading risks, including the effectiveness of the Company's risk management tools associated with hedging and trading procedures to protect against significant losses; changes in demand for electricity and capacity and our ability to contract our electricity generation for prices that will provide expected returns and replace contracts as they expire; changes to the legislative, regulatory and political environments in the jurisdictions in which we operate; environmental requirements and changes in, or liabilities under, these requirements; operational risks involving our facilities, including unplanned outages; disruptions in the transmission and distribution of electricity; the effects of weather, including man made or natural disasters and other climate-change related risks; unexpected increases in cost structure; reductions to our generating units' relative efficiency or capacity factors; disruptions in the source of fuels, including natural gas and coal, as well as the extent of water, solar or wind resources required to operate our facilities; general economic risks, including deterioration of equity markets, increasing interest rates or rising inflation; failure to meet financial expectations; general domestic and international economic and political developments, including armed hostilities, the threat of terrorism, cyberattacks, diplomatic developments or other similar events; equipment failure and our ability to carry out or have completed the repairs in a cost-effective manner or timely manner or at all, including if the remediation at the Kent Hills wind facilities is more costly than expected; the holders of the KH Bonds (as defined below) declaring the principal and interest on the KH Bonds and all other amounts, together with any make-whole amount due thereunder, to be immediately due and payable; industry risk and competition; fluctuations in the value of foreign currencies; structural subordination of securities; counterparty credit risk; changes to our relationship with, or ownership of, TransAlta Renewables; changes in the payment or receipt of future dividends, including from TransAlta Renewables; risks associated with development projects and acquisitions, including capital costs, permitting, engineering risks, and delays in the construction or commissioning of projects; inadequacy or unavailability of insurance coverage; our provision for income taxes; legal, regulatory and contractual disputes and proceedings involving the Company; reliance on key personnel; and labour relations matters. The foregoing risk factors, among others, are described in further detail under the heading "Risk Factors" in this Annual Information Form or in a document incorporated herein by reference, including our management's discussion and analysis for the year ended Dec. 31, 2021.

Readers are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on them, which reflect the Company's expectations only as of the date hereof. The forward-looking statements included in this document are made only as of the date hereof and we do not undertake to publicly update these forward-looking statements to reflect new information, future events or otherwise, except as required by applicable laws. In light of these risks, uncertainties and assumptions, the forward-looking statements might occur to a different extent or at a different time than we have described or might not occur at all. We cannot assure that projected results or events will be achieved.

Documents Incorporated by Reference

TransAlta's audited consolidated financial statements for the year ended Dec. 31, 2021, and related annual management's discussion and analysis are hereby specifically incorporated by reference in this AIF. Copies of these documents are available on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

Corporate Structure

Name and Incorporation

TransAlta Corporation is a corporation organized under the *Canada Business Corporations Act* (the "CBCA"). It was formed by a Certificate of Amalgamation issued on Oct. 8, 1992. On Dec. 31, 1992, a Certificate of Amendment was issued in connection with a plan of arrangement involving TransAlta Corporation and TransAlta Utilities Corporation ("TransAlta Utilities" or "TAU") under the CBCA. The plan of arrangement, which was approved by shareholders on Nov. 26, 1992, resulted in shareholders of TransAlta Utilities exchanging their common shares for shares of TransAlta Corporation on a one-for-one basis. Upon completion of the arrangement, TransAlta Utilities became a wholly owned subsidiary of TransAlta Corporation.

Effective Jan. 1, 2009, TransAlta completed a reorganization, whereby the assets and business affairs of TAU and TransAlta Energy Corporation ("TransAlta Energy" or "TEC") (with the exception of the wind business) were transferred to TransAlta Generation Partnership, a then new Alberta general partnership, whose partners are TransAlta Corporation and TransAlta Generation Ltd., a wholly owned subsidiary of TransAlta Corporation. TransAlta Generation Partnership is managed by TransAlta Corporation pursuant to the terms of a partnership agreement and a management services agreement. Immediately following the transfer of assets by TAU and TEC to TransAlta Generation Partnership, TransAlta Corporation amalgamated with TAU, TEC and Keephills 3 GP Ltd. pursuant to the provisions of the CBCA.

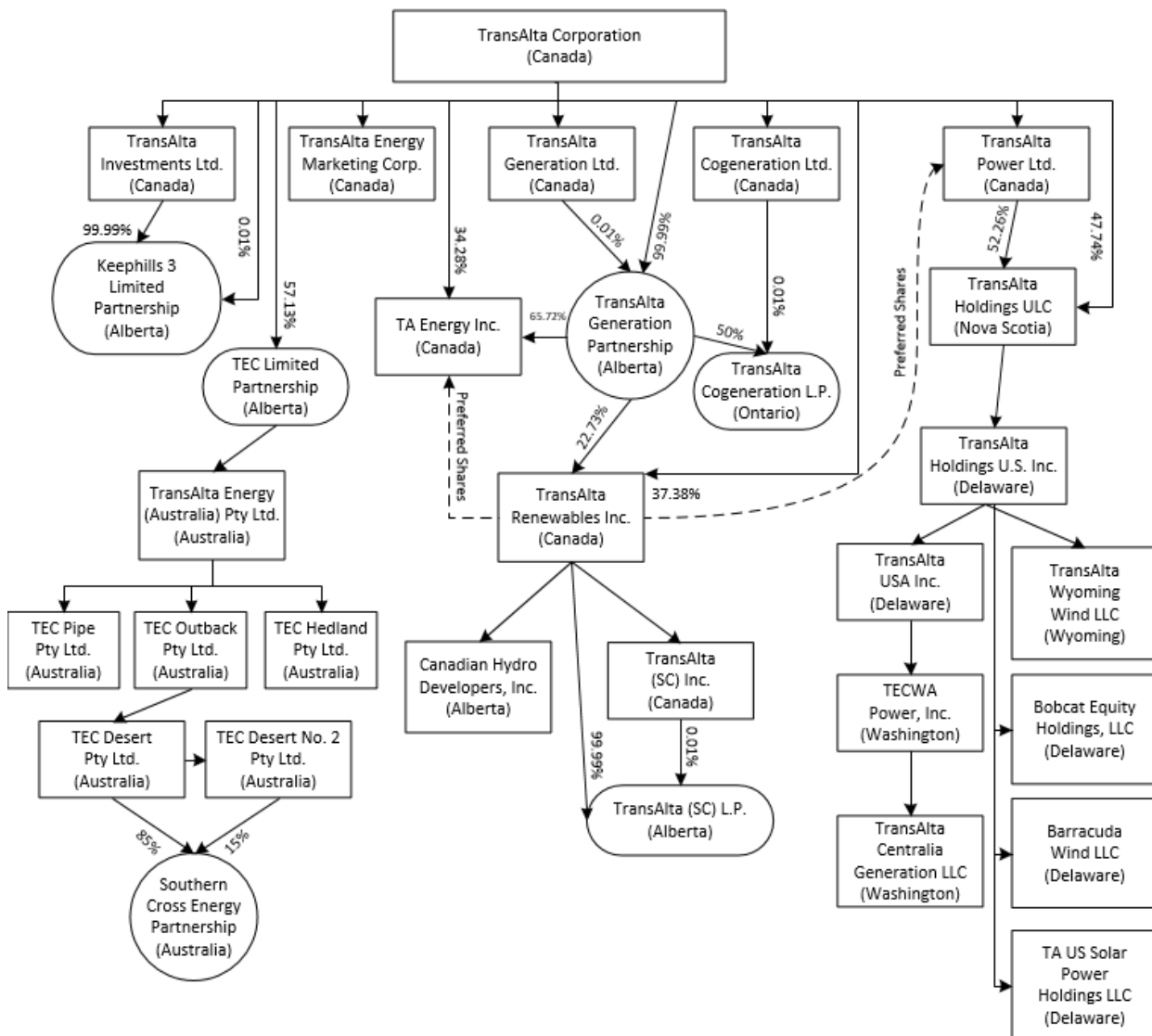
TransAlta amended its articles on Dec. 7, 2010, to create the Series A Shares and Series B Shares; again on Nov. 23, 2011, to create the Series C Shares and Series D Shares; again on Aug. 3, 2012, to create the Series E Shares and Series F Shares; and again on Aug. 13, 2014, to create the Series G Shares and Series H Shares. TransAlta further amended its articles in on Oct. 1, 2020, to create the new series of redeemable, retractable first preferred shares that were issued to an affiliate of Brookfield Renewable Partners ("Brookfield") in October 2020. See the "*Capital and Loan Structure - Exchangeable Securities*" section of this AIF.

The registered and head office of TransAlta is located at 110 - 12th Avenue S.W., Calgary, Alberta, Canada, T2R 0G7.

Our Subsidiaries

As at the date of this AIF, the principal subsidiaries of TransAlta Corporation and their respective jurisdictions of formation are set out below.

Certain of our subsidiaries are not wholly owned. The most significant subsidiary is TransAlta Renewables Inc. ("TransAlta Renewables"), which completed its initial public offering in August 2013. In connection with the offering, TransAlta Corporation transferred to TransAlta Renewables certain wind and hydro power generation assets previously held directly or indirectly by TransAlta Corporation. As at Dec. 31, 2021, TransAlta Corporation owned, directly or indirectly, 60.1 per cent of the outstanding voting equity in TransAlta Renewables. See "*Business of TransAlta - Non-Controlling Interests - TransAlta Renewables*."



Notes:
 (1) Unless otherwise stated, ownership is 100 per cent. As noted elsewhere in this AIF, TransAlta Renewables has economic interests in a number of projects through tracking preferred shares in the capital of TA Energy Inc. and TransAlta Power Ltd., which are both wholly owned by TransAlta Corporation.
 (2) We own, directly or indirectly, an aggregate interest of approximately 60.1 per cent of TransAlta Renewables, which includes 37.38 per cent through direct ownership and 22.73 per cent through TransAlta Generation Partnership. The remaining approximately 39.9 per cent interest in TransAlta Renewables is publicly owned.

Overview

TransAlta

We are one of Canada's largest publicly traded power generators with over 110 years of operating experience. We own, operate and manage a highly contracted and geographically diversified portfolio of assets utilizing a broad range of fuels that include water, wind, solar, natural gas, energy storage and coal. We are undertaking a multi-year transition to convert or retire all of our coal units completely by the end of 2025. This transition is complete in Alberta where we discontinued all generation with coal and all coal mining operations on Dec. 31, 2021. Our Centralia coal-fired facility in Washington State is committed to be retired under the TransAlta Energy Transition Bill pursuant to which, Centralia Unit 1 retired on Dec. 31, 2020 and the remaining unit is set to retire on Dec. 31, 2025. Our energy marketing operations maximize margins by securing and optimizing high-value products and markets for ourselves and our customers in dynamic market conditions.

Our goal is to be a leader in customer-centred clean electricity, committed to a sustainable future, focused on increasing shareholder value by growing our portfolio of high quality generation facilities with stable and predictable cash flows. Our mission is to provide safe, low-cost and reliable clean electricity. With our 110-year history of powering economies and communities, we apply our expertise, scale and diversified fuel mix to capitalize on opportunities in our core markets and grow in areas where we can employ our competitive advantages.

Our values are grounded in safety, innovation, sustainability, respect and integrity, all of which enable us to work towards our common goals. These values are the principles that define our corporate culture. They reflect our skills and mindset, while providing a framework for everything we do, guiding both internal conduct and external relationships. These values are at the heart of our success:

- Safety – Ensure the health and safety of our people, partners and stakeholders
- Innovation – Develop and embrace innovative solutions to challenges
- Sustainability – Reduce the impact of resource use in everything we do
- Respect – Support our people, our partners, our communities and our environment
- Integrity – Focus on honesty, transparency and doing what's right

TransAlta and its predecessors have been engaged in the development, production and sale of electric energy since 1911. We are among Canada's largest non-regulated electricity generation and energy marketing companies with 7,387 megawatts ("MW") of gross installed capacity. We are focused on generating and marketing electricity in Canada, the United States ("US") and Western Australia through our diversified portfolio of facilities including hydro, wind, solar, energy storage, natural gas and coal.

TransAlta's diversified portfolio of power generating assets across multiple geographies, technologies and mix of merchant and contracted assets provides cash flows that support our ability to pay dividends to our shareholders, reinvest in growth and fund sustaining and capital expenditures.

Corporate Strategy

Our strategic focus is to invest in clean energy solutions that meet the needs of our customers and communities. We invest in a disciplined manner in projects that help our customers and our communities meet their Environment, Social and Governance ("ESG") objectives and that deliver returns to our shareholders. To support this strategy we maintain a growing pipeline of project opportunities focused on hydro, wind, solar and energy storage and low emissions gas generation.

On Sept. 28, 2021, TransAlta announced its strategic growth targets and accelerated Clean Electricity Growth Plan. The Company's enhanced focus on renewable generation and storage solutions for customers is driven largely by the growing demand for zero-emissions electricity to reach global decarbonization goals and the increase in demand for contracted renewables to help companies achieve their ESG ambitions.

The following provides an overview of our Clean Electricity Growth Plan and strategic priorities to 2025:

1. Accelerate growth in customer-centred renewables and storage

We are growing our renewable capacity and plan to invest \$3 billion to deliver 2 GW of incremental renewable capacity by the end of 2025. We are targeting this new capacity, once fully operational, to deliver incremental annual EBITDA of \$250 million. We are also expanding our Company's development pipeline to 5 GW by 2025, which will enable us to deliver a two-fold increase in the Company's renewables fleet between 2025 and 2030.

2. Realize targeted approach to diversification

We are focused on growing our asset base in our core geographies of Australia, Canada, and the US so that we can realize targeted diversification and value creation. We expanded our renewables platform in the US and Canada in 2021 and continue to identify additional opportunities with customers on electricity offerings with a higher component of power coming from renewable sources in our 3 GW development pipeline.

3. Maintain financial strength and capital allocation discipline

Our strong cash flow results provide a large pool of funds to be allocated to our funding priorities. Higher operating cash flow at the Company, combined with the structural reduction in sustaining capital, frees up additional capital capacity to allocate to growth, dividends and share buybacks.

4. Define the next generation of power solutions and technologies

We intend to define the next generation of power solutions that will meet the needs of our economy and communities in the back-half of the decade and the decade to come.

5. Lead in ESG policy development

Given the ambitious climate goals in all of our geographies, we see it as being imperative that independent power producers ("IPPs"), like TransAlta, actively participate in policy development to ensure the zero-emissions electricity we provide contributes to emissions reduction, grid reliability and achieving competitive energy prices.

6. Successfully navigate through COVID-19 pandemic

We will continue to maintain an effective response to COVID-19 and plan a safe return to office.

Our ESG Leadership

Sustainability means ensuring that our financial returns consider short- and long-term economics, environmental and societal impacts as well as community needs. As we execute our strategy, our decisions are governed with a view to also delivering on our ESG objectives. We have a long history of adopting leading sustainability practices, including over 25 years of sustainability reporting and also voluntarily integrating our sustainability report into our annual report. We have been issuing an integrated annual report since 2015. We test our practices and our reporting against standards set by CDP, formerly the Carbon Disclosure Project and the Task Force on Climate-related Financial Disclosures ("TCFD").

Our key sustainability pillars build on our corporate strategy and weave through our business. Our track record in these areas illustrates our commitment to sustainability (including climate change leadership and safety). In other areas where we have set new goals in recent years including Equity, Diversity and Inclusion ("ED&I"), we believe the focus will only strengthen our corporate strategy and support value creation into the future. Our sustainability pillars include:

- Clean, Reliable and Sustainable Electricity Production
- Safe, Healthy, Diverse, and Engaged Workplace
- Positive Indigenous, Stakeholder and Customer Relationships
- Progressive Environmental Stewardship
- Technology and Innovation

In 1990, we were the first Canadian company to purchase carbon offsets and in 2000 we were an early adopter of wind power generation. Since 2015, we have reduced our Green House Gas ("GHG") emissions by 61 per cent. In 2021, we reduced approximately 3.9 million tonnes of carbon dioxide equivalent ("CO₂e") or 24 per cent over our 2020 levels. After ending coal generation in Canada in 2021, TransAlta will cease generation from our single remaining US coal unit by the end of 2025 further reducing emissions. Moreover, the Company aligns its ESG targets with the UN Sustainable Development Goals.

The key components of our Company's approved ESG targets include:

- a continued focus on safe operations and environmentally sustainable practices, including undertaking significant reclamation work;
- by 2026, achieving a 95 per cent reduction in sulphur dioxide emissions and an 80 per cent reduction of nitrogen oxide ("NOx") emissions over 2005 levels from our coal facilities, and by 2026 a company-wide reduction in GHG emissions of 75 per cent below 2015 levels;
- undertaking initiatives that will enhance the environmental performance of the Company, including converting coal facilities to natural gas and developing new renewable projects that support customer ESG goals to achieve both long-term power price affordability and carbon reductions;
- supporting equal access to all levels of education for youth and Indigenous peoples through financial assistance and employment opportunities;
- enhancing our commitment to workplace gender diversity, including adopting a target of 50 per cent representation of women on the Board of Directors by 2030 and at least 40 per cent representation of women among all of our employees by 2030; and
- maintaining our commitment to leading ESG disclosures.

On Dec. 7, 2021, the Company received a B score from the CDP under updated criteria, exceeding the average C score in North America and the highest score achieved by thermal generating companies.

ESG factors are overseen by TransAlta's Governance, Safety and Sustainability Committee ("GSSC") of the Board of Directors. The GSSC assists the Board in fulfilling its oversight responsibilities with respect to the Company's monitoring of climate change, environmental, health and safety regulations, public policy changes and the development of strategies, policies and practices for climate change, environment, health and safety, and social well-being, including human rights, working conditions and responsible sourcing.

In 2021, we revised several corporate policies to help govern sustainability at TransAlta. Our Corporate Code of Conduct sets out expected behaviours of all our employees and our commitment to creating a work environment where all workers feel safe and are valued for the diversity they bring to our business. We also have adopted a Supplier Code of Conduct that defines the principles and standards expected of suppliers, their employees and contractors to meet while in the provision of goods and/or services to TransAlta.

Our Human Rights and Discrimination Policy communicates our commitment to human rights in our operations and supply chain to ensure that our personnel policies and practices in our global operations will respect fundamental rights. In Australia, our *Modern Slavery Act* statements demonstrate the actions we have taken to assess and address modern slavery risks within our operations and supply chain. Our Indigenous Relations Policy focuses on four key areas: community engagement and consultation; business development; community investment; and employment. We ensure that TransAlta's principles for engagement are upheld and that the Company fulfills its commitments to Indigenous communities.

Our Whistleblower Policy provides a mechanism for our employees, officers, directors and contractors to report, amongst other things, any actual or suspected ethical or legal violations. We would seek to remedy the impact promptly in order to establish a corrective action plan in collaboration with the relevant individuals and stakeholders.

Our Total Safety Management Policy formalizes our commitment to protecting the public and our assets, as well as the physical, psychological and social well being of our people, and defines the personal responsibility of each employee and contractor working on TransAlta's behalf. Our commitment to equity, diversity and inclusion in our workplace and amongst our co-workers at all levels of the Company is set out in our Board and Workforce Diversity Policy and Diversity and Inclusion Pledge. We believe a strong focus on equity, diversity and inclusion will drive performance in innovation, improve service to our customers and positively impact the communities that we all live in.

Our Capital Allocation and Financing Strategy

Our goal is to remain disciplined with our capital investment program and ensure that we maintain a strong financial position and sufficient capital is available to execute on our strategy.

Maintaining a strong financial position allows the Company's commercial team to contract the Company's portfolio with a variety of counterparties on terms and prices that are favourable to the Company's financial results and provides the Company with better access to capital markets through commodity and credit cycles. The Company has an investment-grade BBB (low) credit rating from DBRS, a corporate family rating of Ba1 from Moody's with a stable outlook, Standard and Poor ("S&P") Global Ratings that reaffirmed the Company's Unsecured Debt rating and Issuer Rating of BB+ with a stable outlook. The Company has the ability to execute its Clean Electricity Growth Plan at these rating levels.

Our capital allocation strategy includes cash available to the Company's shareholders and considers maintenance capital, debt repayment, growth and dividend payments. The Company targets returning between 10 per cent and 15 per cent of TransAlta deconsolidated funds from operations to common shareholders.

Our capital allocation and financing strategy balances the demands associated with meeting our goals around reinvestment, new growth and debt repayments along with providing shareholders a return on their capital.

Our Business Segments

During the fourth quarter of 2021, the Company changed its segmented reporting disclosures to align with the Company's Clean Electricity Growth Plan. The segment reporting changes reflect a corresponding change in how management and the Chief Executive Officer assess the performance of the Company.

The primary changes are the elimination of the Alberta Thermal and the Centralia segments; and the reorganization of the North American Gas and Australia Gas segments into a new "Gas" segment. The Alberta Thermal facilities that were converted to gas have been included in the redefined Gas segment. The remaining assets previously included in Alberta Thermal, including the mining assets and those facilities not converted to gas and the remaining Centralia unit are included in a new "Energy Transition" segment. The Skookumchuck dam was also moved from the Hydro segment to the Energy Transition segment due to its close proximity and use in the Centralia facility, see "*Business of TransAlta - Energy Transition Business Segment*." No changes were made to the Wind and Solar, Corporate or Energy Marketing segments. Prior years' metrics were restated to reflect the realignment of the operating segments.

The Hydro segment has a net ownership interest of approximately 925 MW of owned electrical-generating capacity. The facilities within this segment are predominantly located in Alberta, British Columbia, and Ontario.

The Wind and Solar segment has a net ownership interest of approximately 1,879 MW of owned electrical-generating capacity and includes facilities located in Alberta, Ontario, New Brunswick and Québec, and the states of Massachusetts, Minnesota, New Hampshire, North Carolina, Pennsylvania, Washington and Wyoming.

The Gas segment has a net ownership interest of approximately 2,775 MW of owned electrical-generating capacity and includes facilities located in Alberta, Ontario, Michigan and Western Australia. This includes a pipeline located in Western Australia.

The Energy Transition segment has a net ownership interest in approximately 1,472 MW of owned electrical-generating capacity. The segment includes the previously disclosed Centralia reportable segment, the Skookumchuck Hydro facility, Sundance Unit 4, retired thermal units and the mining operations previously recorded in the Alberta Thermal segment. This change aligns with the Company's long-term strategy and reflects the Clean Electricity Growth Plan.

The Energy Marketing segment is responsible for marketing our production through short-term and long-term contracts, for securing cost-effective and reliable fuel supply, and for maximizing margins by optimizing our assets as market conditions change. Our Energy Marketing segment is actively engaged in the trading of power, natural gas and environmental products across a several markets.

The Corporate segment supports each of the above segments and includes the Company's central finance, legal, administrative, business development and investor relations functions.

We regularly review our operations in order to optimize our generating assets and evaluate appropriate growth opportunities to maximize value to the Company. We have in the past made, and may in the future make, changes and additions to our fleet of hydro, wind, solar, energy storage, natural gas and coal.

TransAlta Renewables

TransAlta Corporation is the majority owner of TransAlta Renewables, with an approximate 60 per cent direct and indirect ownership interest as of the date of this AIF. TransAlta Renewables is one of the largest generators of wind power and among the largest publicly traded renewable power generation companies in Canada.

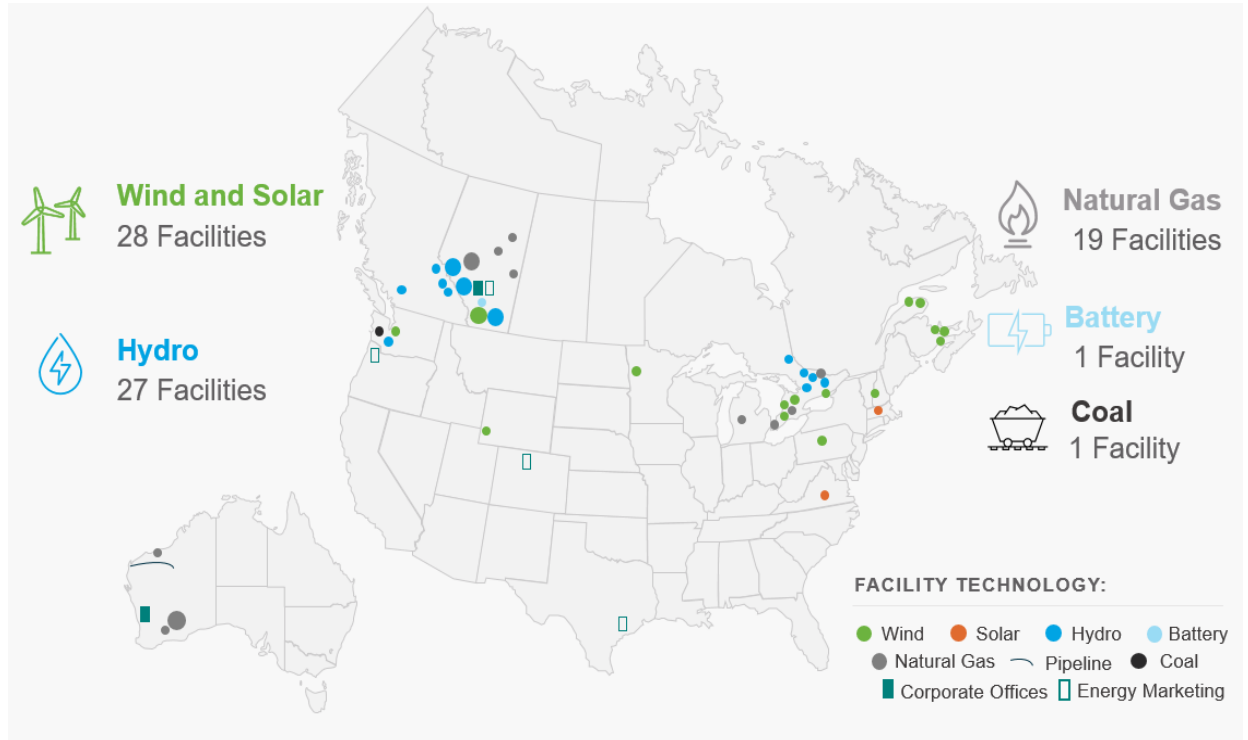
TransAlta Renewables was formed in 2013 to realize specific strategic and financial benefits, including: (a) establishing a focused vehicle for pursuing and funding growth opportunities in the renewable power and gas generation sector; (b) unlocking the value of TransAlta's renewable asset platform; (c) retaining TransAlta's majority ownership and operatorship of the underlying assets; (d) providing proceeds of approximately \$200-\$250 million to repay debt and support TransAlta's balance sheet; and (e) creating additional financial flexibility for TransAlta by providing another source of capital with a separate cost of capital.

TransAlta holds mainly merchant assets in hydro and natural gas while TransAlta Renewables holds assets primarily with long-term contracts generating stable cash flows in wind, solar, natural gas and energy storage. The Company's majority ownership of TransAlta Renewables has supported the Company in implementing its overall strategy of developing, constructing or acquiring additional renewable assets. The Company's strategy has shifted to reduce merchant and gas exposure as announced at our September 2021 Investor Day. As such, TransAlta's and TransAlta Renewables' strategies for growth are becoming more aligned and may result in a overlap of growth objectives.

TransAlta Renewables, or one or more of its wholly owned subsidiaries, directly owns certain of our wind, hydro, natural gas and energy storage facilities. TransAlta Renewables also owns economic interests in a number of our other facilities. The Company provides all management, administrative and operational services required for TransAlta Renewables to operate and administer its assets and to acquire additional assets pursuant to the Management and Operational Services Agreement and the Governance and Cooperation Agreement between TransAlta Corporation and TransAlta Renewables. See the "Business of TransAlta - Non-Controlling Interests - TransAlta Renewables" section in this AIF.

TransAlta's Map of Operations

The following map outlines the Company's operations⁽¹⁾⁽²⁾ as of Dec. 31, 2021.



Notes:

(1) Includes facilities directly owned by TransAlta Renewables or its subsidiaries, as well as facilities in which TransAlta Renewables or one of its subsidiaries has an economic interest. We own, directly or indirectly, an aggregate interest of approximately 60 per cent of TransAlta Renewables.

(2) Facilities include Keephills Unit No. 1, which was retired from service effective Dec. 31, 2021, and Sundance Unit No.4, which is set to retire on April 1, 2022.

General Development of the Business

Significant regulatory changes continue to have extensive impacts on the Company's business and strategy. Starting in 2015, the Government of Alberta and the Government of Canada announced a shared goal to reduce carbon emissions and phase out pollution from coal-generated electricity by 2030. TransAlta responded quickly to these announcements and set down the path to fully transform itself into a leading clean electricity company. Part of this strategy was to convert our remaining coal fleet in Canada to natural gas. This eliminated coal as a fuel source in our Canadian operating units at the end of 2021. In addition, we continue to expand our renewable generation fleet with our Clean Electricity Growth Plan. Throughout this transformation, we always keep our mission statement in mind: to provide safe, low-cost and reliable clean electricity.

The significant events and conditions affecting our business during the three most recently completed financial years, and during the current year to date, are summarized below. Certain of these events and conditions are discussed in greater detail in this AIF in the "Business of TransAlta" Section.

Three-Year History

Generation and Business Development

2021

TransAlta Achieves Full Phase-Out of Coal in Canada

On Dec. 29, 2021, the Company announced that it had completed the full conversion of Keephills Unit 2, Keephills Unit 3 and Sundance Unit 6 from thermal coal to natural gas. Keephills Unit 2, Keephills Unit 3 and Sundance Unit 6 will maintain the same generator nameplate capacity of 395 MW, 463 MW and 401 MW, respectively. These conversion to gas projects will reduce our CO₂ emissions by more than half and complete our plan to generate 100 per cent clean electricity in Alberta by the end of 2021. As of Dec. 31, 2021, the Company is no longer generating with coal and has fully transitioned to natural gas in Canada.

White Rock Wind Projects and Corporate PPA

On Dec. 22, 2021, the Company executed two long-term power purchase agreements ("PPAs") with a new customer with an AA credit rating from S&P Global Ratings for 100 per cent in respect of its 300 MW White Rock East and White Rock West wind projects located in Caddo County, Oklahoma. The White Rock wind projects will consist of a total of 51 Vestas turbines. Construction is expected to begin in late 2022 with a target commercial operation date in the second half of 2023. TransAlta will construct, operate and own the facilities. Total construction capital is estimated at approximately US\$460 million to US\$470 million and is expected to be financed with a combination of existing liquidity and tax equity financing. Over 90 per cent of the project costs are captured under executed fixed price turbine supply agreements and fixed price engineering, procurement, and construction agreements.

TransAlta Renewables Delivers Commercial Operation of Windrise

On Dec. 2, 2021, TransAlta Renewables announced that the 206 MW Windrise wind facility ("Windrise") achieved commercial operation on Nov. 10, 2021. The Windrise facility is located approximately 20 km southwest of Fort Macleod on approximately 11,000 acres of privately owned land. The Windrise wind facility is TransAlta Renewables' largest wind farm to-date and has a 20-year offtake agreement with the Alberta Electric System Operator ("AESO").

North Carolina Solar Acquisition

On Nov. 5, 2021, the Company closed the acquisition of a 122 MW portfolio of 20 solar photovoltaic sites located in North Carolina (collectively, "North Carolina Solar"). The assets were acquired from a fund managed by Copenhagen Infrastructure Partners for approximately US\$99 million (including working capital adjustments) and the assumption of existing tax equity obligations. The acquisition was funded using existing liquidity.

At the closing of the acquisition, TransAlta Renewables acquired a 100 per cent economic interest in North Carolina Solar from a wholly owned subsidiary of TransAlta through a tracking share structure for aggregate consideration of approximately US\$102 million.

The facilities are all operational and were commissioned between November 2019 and May 2021. The facilities are 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 site.

Retirement of Sundance Unit 4 and Keephills Unit 1 and Suspension of Sundance Unit 5

On Sept. 28, 2021, the Company announced its decision to suspend the Sundance Unit 5 repowering project and retire Keephills Unit 1 on Dec. 31, 2021 and Sundance Unit 4 on April 1, 2022.

Kent Hills Wind Facilities Outage

On Sept. 27, 2021, the Company's subsidiary, Kent Hills Wind LP, experienced a single tower failure at its 167 MW Kent Hills wind facilities in Kent Hills, New Brunswick. The failure involved a collapsed tower located within the Kent Hills 2 site. There were no injuries as a result of the collapse. No one was in the area when the incident occurred and there are no homes in the immediate vicinity. The Company's emergency response team secured the area to ensure safety.

The facilities consist of 50 turbines at Kent Hills 1 and 2 wind facilities and five turbines at Kent Hills 3. Following extensive independent engineering assessments and root cause failure analysis, the Company announced on Jan. 11, 2022, that all 50 turbine foundations at the Kent Hills 1 and 2 wind facilities will require a full foundation replacement. The root cause failure analysis indicates that deficiencies in the original design of the foundations have caused crack propagation within the foundations and that the foundations must be replaced. The Company is in the process of planning the rehabilitation of the wind sites and currently expects the wind facility foundations to be fully replaced by the end of 2023. Based on the recommendations of independent engineers, and in order to maintain the safety of the affected sites and turbines, the wind turbines will cease to operate until their associated foundations are replaced.

Foundation replacements will require expenditures of approximately \$75 million to \$100 million, in aggregate. The remediation plan is expected to begin to be implemented in 2022. The outage is expected to result in foregone revenue of approximately \$3.4 million per month on an annualized basis so long as all 50 turbines are offline, based on average historical wind production, with revenue expected to be earned as the wind turbines are returned to service.

TransAlta and New Brunswick Power Corporation continue discussions to enable the safe return to service of the facilities.

The foundation issues at the Kent Hills 1 and 2 wind facilities are unique to the design of those sites and there is no indication of any foundation issue at the Kent Hills 3 wind facility or any other wind facility in the fleet. The Company is maintaining communication with all key stakeholders and keeping them fully apprised of the situation. The Company is actively evaluating any options that may be available to recover these costs from third parties and insurance providers.

As a result of the determination that all 50 foundations require replacement, as well as certain resulting amendments to applicable insurance policies, the Company's operating subsidiary, Kent Hills Wind LP, has provided notice to BNY Trust Company of Canada, as trustee (the "KH Trustee") for the approximately \$221 million outstanding non-recourse project bonds (the "KH Bonds") secured by, among other things, the Kent Hills wind facilities, that events of default may have occurred under the trust indenture governing the terms of the KH Bonds. Upon the occurrence of any event of default, holders of more than 50 per cent of the outstanding principal amount of the KH Bonds have the right to direct the KH Trustee to declare the principal and interest on the KH Bonds and all other amounts due thereunder, together with any make-whole amount, to be immediately due and payable and to direct the KH Trustee to exercise rights against certain collateral. The Company is in discussions with the KH 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 KH 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.

Northern Goldfields Solar Project

On July 29, 2021, TransAlta Renewables announced that Southern Cross Energy ("SCE"), a subsidiary of the Company and an entity in which TransAlta Renewables owns an indirect economic interest, had reached an agreement to provide BHP Billiton Nickel West Pty Ltd. ("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 our existing 169 MW SCE North remote network in Western Australia. Construction activities started in the first quarter of 2022 with completion of the projects expected in the second half of 2022. The total construction capital of the project is estimated at approximately AU\$69 million to AU\$73 million.

Keephills Unit 2 Conversion to Gas

On July 19, 2021, the Company announced the completion of the conversion of Keephills Unit 2 from coal to natural gas. Keephills Unit 2 maintains the same generator nameplate capacity of 395 MW while reducing the CO₂ emissions by more than half, from approximately 1.04 tonnes of CO_{2e} per MWh to approximately 0.51 tonnes of CO_{2e} per MWh.

Sale of the Pioneer Pipeline

On June 30, 2021, the Company closed the previously announced sale of the Pioneer Pipeline to ATCO Gas and Pipelines Ltd. ("ATCO") for the aggregate sale price of \$255 million. The net cash proceeds to TransAlta from the sale of its 50 per cent interest was approximately \$128 million. Pioneer Pipeline has been integrated into NOVA Gas Transmission Ltd. ("NGTL") and ATCO's Alberta natural gas transmission systems to provide reliable natural gas supply to the Company's power generation stations at Sundance and Keephills. As part of the transaction, TransAlta entered into additional long-term gas transportation agreements with NGTL for new and existing transportation service of 400 TJ per day by the end of 2023.

TransAlta Completes Sarnia Cogeneration Facility Contract Extension

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, which provides for the supply of electricity and steam. This agreement will extend the term of the original agreement from Dec. 31, 2022, to Dec. 31, 2032. The agreement provides that if the Company is unable to enter into a new contract with the Ontario Independent Electricity System Operator ("IESO") or enter into agreements with its other industrial customers at the Sarnia cogeneration facility that extend past Dec. 31, 2025, then the Company has the option to provide notice of termination in 2022 that would terminate the Amended and Restated Energy Supply Agreement four years following such notice. The Company is in active discussions with the three other existing industrial customers regarding extensions to their supply of electricity and steam from the Sarnia cogeneration facility on comparable terms. The current contract with the IESO in respect of the Sarnia cogeneration facility expires on Dec. 31, 2025. On July 19, 2021, the IESO released its Annual Acquisition Report which included draft details for mid- and long-term procurement mechanisms for capacity for 2026 and beyond for existing and new generation. The medium term procurement process is scheduled to commence in 2022. The Company plans to bid into the process, seeking to secure a contract extension for the Sarnia cogeneration facility following the end of the current contract.

Garden Plain Wind Project

On May 3, 2021, the Company announced that it entered into a long-term PPA with Pembina Pipeline Corporation ("Pembina") pursuant to which Pembina has contracted for the renewable electricity and environmental attributes for 100 MW of the 130 MW Garden Plain wind project. Under a separate agreement, Pembina has the option to purchase a 37.7 per cent interest in the project (49 per cent of the 100 MW under the PPA). The option must be exercised no later than 30 days after the commercial operational date. TransAlta would remain the operator of the facility and earn a management fee if Pembina exercises this option. The Garden Plain wind project will be located approximately 30 km north of Hanna, Alberta. Construction activities started in the fall of 2021 with completion of the project expected in the second half of 2022. Total construction capital of the project is estimated at approximately \$195 million.

TransAlta Renewables Acquisitions

On Feb. 26, 2021, the Company completed the sale of its 100 per cent direct interest in the 206 MW Windrise wind facility to TransAlta Renewables for \$213 million. The remaining construction costs for Windrise were paid by TransAlta Renewables. The Windrise wind facility achieved commercial operation on Nov. 10, 2021.

On April 1, 2021, the Company completed the sale of its 100 per cent economic interest in the 29 MW Ada cogeneration facility ("Ada") and its 49 per cent economic interest in the 137 MW Skookumchuck wind facility ("Skookumchuck") to TransAlta Renewables for \$43 million and \$103 million, respectively. Both facilities are fully operational. Pursuant to the transaction, a TransAlta subsidiary owns Ada and Skookumchuck directly and has issued to TransAlta Renewables tracking preferred shares reflecting its economic interest in the facilities. The Ada cogeneration facility is under a PPA until 2026. The Skookumchuck wind facility is contracted under a PPA until 2040 with an investment grade counterparty.

TransAlta Completes First Off-Coal Conversion and Achieves Major Milestone in Phase-Out of Coal

On Feb. 1, 2021, the Company announced that it had completed the first of three planned boiler conversions to gas at the Sundance and Keephills power generation facilities near Wabamun, Alberta. The full conversion of Sundance Unit 6 from coal to natural gas allows the unit to reduce its CO₂ emissions by half from approximately 1.05 tonnes of CO₂e per MWh to approximately 0.52 tonnes of CO₂e per MWh.

2020

TransAlta's Alberta Power Purchase Arrangements Expire

On Dec. 31, 2020, the Alberta Power Purchase Arrangements ("Alberta PPAs") for many of our Alberta hydro facilities and Keephills 1 and 2 units expired and, commencing Jan. 1, 2021, these facilities began operating on a merchant basis in the Alberta market.

Centralia Unit 1 and 2 Retirement

Effective Dec. 31, 2020 Centralia Unit 1 was retired from service. The Centralia Unit 2 is set to shut down at the end of 2025.

TransAlta Sells 303 MW Portfolio Including 274 MW of Wind to TransAlta Renewables

On Dec. 23, 2020, the Company and TransAlta Renewables entered into definitive agreements for the acquisition of three assets consisting of: (a) a 100 per cent direct interest in the 206 MW Windrise wind project located in the Municipal District of Willow Creek, Alberta; (b) a 49 per cent economic interest in the 137 MW Skookumchuck wind facility in operation located across Thurston and Lewis counties in Washington State; and (c) a 100 per cent economic interest in the 29 MW Ada facility in operation located in Ada, Michigan. The total acquisition price for the portfolio was \$439 million and included the remaining construction costs for the Windrise wind project. TransAlta Renewables funded the cash consideration and remaining construction costs with the proceeds from the South Hedland financing.

TransAlta Acquired 30 per cent Equity Interest in EMG International LLC ("EMG")

On Nov. 30, 2020, the Company acquired a 30 per cent equity investment in EMG. The Company and EMG have joined forces to leverage their complementary customer bases to grow each business and further enhance product offerings to help customers reach their sustainability goals. EMG is an established company with over 25 years of experience in process wastewater treatment and specializes in the design and construction of high-rate anaerobic digester systems. TransAlta's investment in EMG provides a low-risk entry point into the wastewater treatment industry and creates strong synergies with the Company's existing customer service offerings.

Skookumchuck Wind Project Equity Investment

On Nov. 25, 2020, the Company closed its 49 per cent equity investment in the Skookumchuck wind project with the Southern Power Company. Skookumchuck is a 137 MW wind project located in Lewis and Thurston counties, Washington consisting of 38 Vestas V136 wind turbines. Skookumchuck began commercial operation on Nov. 7, 2020, and has a 20-year PPA with Puget Sound Energy. The economic interest in this facility was sold to TransAlta Renewables on April 1, 2021.

BHP 15-Year Contract Extension

On Oct. 22, 2020, SCE, a subsidiary of the Company, replaced and extended its current PPA with 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 was effective Dec. 1, 2020, and replaces 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 SCE facilities for BHP's mining operations located in the Goldfields region of Western Australia. The extension will provide SCE a return on new capital investments, which will be required to support BHP's future power requirements and emission reduction targets. The amendments within the PPA also provide BHP participation rights in integrating renewable electricity generation, including solar and wind, with energy storage technologies, subject to the satisfaction of certain conditions. Evaluation of renewable energy supply and carbon emissions reduction initiatives under the extended PPA with BHP are underway, including wind generation and lower emission firming generation to support BHP's future power requirements.

TransAlta Renewables Announced Commercial Operation of WindCharger, Alberta's First Utility-Scale Battery Storage Project

On Oct. 15, 2020, the WindCharger battery storage project began commercial operation. WindCharger is Alberta's first utility-scale, lithium-ion energy storage project that uses Tesla Megapack technology. TransAlta partnered with Emissions Reduction Alberta in order to receive co-funding of approximately 50 per cent of the \$14 million construction cost. The 10 MW / 20 MWh battery storage facility was acquired by TransAlta Renewables from the Company on Aug. 1, 2020. The Company also executed a 20-year battery storage usage contract with TransAlta Renewables in which the Company pays a fixed monthly capacity charge for the exclusive right to operate and dispatch the battery in the Alberta market. WindCharger is participating in both the Alberta spot market and ancillary services market of the AESO.

Retirement of Sundance 3 Coal-Fired Thermal Facility

On July 22, 2020, the Company announced that it gave notice to the AESO to retire Sundance Unit 3 effective July 31, 2020. The retirement decision was largely driven by TransAlta's assessment of future market conditions, the age and condition of the unit and our ability to supply energy and capacity from our generation portfolio in Alberta.

Acquisition of Contracted Cogeneration Asset in Michigan

On May 19, 2020, we closed the acquisition of a contracted cogeneration asset from two private companies for a purchase price of US\$27 million. The asset is a 29 MW cogeneration facility in Michigan which is contracted under a long-term PPA and steam sale agreement for approximately six years with Consumers Energy and Amway. The economic interest in this facility was sold to TransAlta Renewables in the first half of 2021.

2019

TransAlta Renewables Delivers on Two Contracted US Wind Projects

The Big Level wind facility and the Antrim wind facility began commercial operation on Dec. 19, 2019, and Dec. 24, 2019, respectively. TransAlta Renewables has an economic interest in these two US wind facilities. The 90 MW Big Level wind facility located in Pennsylvania is under a 15-year contract with Microsoft and the 29 MW Antrim wind facility located in New Hampshire is under two 20-year contracts with Partners Healthcare and New Hampshire Electric Co-op, respectively. All counterparties have a S&P credit rating of A+ or better.

During the third quarter of 2019, subsidiaries of TransAlta entered into final agreements with an external party for a planned tax equity investment in the Antrim and Big Level wind facilities. In December 2019, following Antrim and Big Level each achieving commercial operation, approximately \$166 million (US\$126 million) of tax equity proceeds were raised by the TransAlta project entities to partially fund the Antrim and Big Level wind facilities, for US\$41 million and US\$85 million, respectively.

TransAlta Renewables, through its economic interest ownership, provided construction funding with a combination of tracking preferred shares and interest-bearing notes issued by the project entity. The tax equity proceeds were used to repay TransAlta Renewables the principal and accrued interest outstanding on the interest-bearing promissory notes used to fund the construction.

2019 Clean Energy Investment Plan

In 2019, we announced our Clean Energy Investment Plan, which included plans to convert our existing Alberta coal assets to natural gas and advance our leadership position in on-site generation and renewable energy. TransAlta's initial plan included converting three of its existing Alberta thermal units to gas in 2020 and 2021 by replacing existing coal burners with natural gas burners. The cost to convert was approximately \$35 million per unit.

On Oct. 30, 2019, we acquired two 230 MW Siemens F-class gas turbines and related equipment for \$84 million from Kineticor Holdings Limited Partnership #2 ("Kineticor") connected to their Three Creeks project. These turbines were intended to be redeployed to our Sundance 5 site as part of the repowering of Sundance Unit 5. However, the Sundance Unit 5 repowering project was suspended on Sept. 28, 2021.

Kaybob Generation Project

In 2019, TransAlta and Energy Transfer Canada ("ET Canada", formerly known as SemCAMS Midstream ULC) entered into agreements to develop, construct and operate a 40 MW cogeneration facility at the Kaybob South No. 3 sour gas processing plant ("K3"). The facility was expected to receive its final regulatory approvals in the second half of the year and begin construction in December 2020. On Sept. 25, 2020, the AUC released a decision in which it approved the construction and operation of the facility, but denied the application for the industrial system designation.

ET Canada purported to terminate the agreements related to the development and construction of the K3 cogeneration project. As a result, during the first quarter of 2021, the Company recorded an impairment of \$27 million in the Corporate segment as this facility was not yet operational. The recoverable amount was based on estimated fair value less costs of disposal of reselling the equipment purchased to date. TransAlta has commenced an arbitration seeking compensation for ET Canada's wrongful termination of the agreements. ET Canada seeks a declaration that the agreements were lawfully terminated.

Agreement to Swap Non-Operating Interests in Keephills 3 and Genesee 3

On Aug. 2, 2019, we entered into definitive agreements with Capital Power Corporation ("Capital Power") providing for the swap of our respective non-operating interests in the Keephills 3 facility and the Genesee 3 facility. On Oct. 1, 2019, we closed the transaction with Capital Power. As a result, we own 100 per cent of the Keephills 3 facility and Capital Power owns 100 per cent of the Genesee 3 facility.

Strategic Investment by Brookfield

On March 25, 2019, the Company entered into an agreement dated March 22, 2019, with Brookfield (the "Investment Agreement"). Under the Investment Agreement, Brookfield agreed to invest \$750 million in the Company through the purchase of exchangeable securities, which are exchangeable by Brookfield into an equity ownership interest in certain of TransAlta's Alberta hydro assets ("Hydro Assets") in the future at a value based on a multiple of the Alberta Hydro Assets' future-adjusted EBITDA.

On May 1, 2019, Brookfield invested the initial tranche of \$350 million in exchange for seven per cent unsecured subordinated debentures due May 1, 2039. On Oct. 30, 2020, Brookfield invested the second tranche of \$400 million in consideration for redeemable, retractable first preferred shares. The proceeds from the first and second tranche were used to accelerate our conversion to gas program. In addition, the proceeds from the second tranche of the financing were used to fund other growth initiatives and for general corporate purposes.

Under the terms of an Investment Agreement, Brookfield committed to purchase TransAlta common shares on the open market to increase its share ownership in TransAlta to not less than nine per cent. At Dec. 31, 2021, Brookfield, through its affiliates, held, owned or had control over an aggregate of 35,425,696 common shares, representing approximately 13.1 per cent of the issued and outstanding common shares, calculated on an undiluted basis. In connection with the Investment Agreement, Brookfield is entitled to nominate two directors for election to the Board.

In accordance with the terms of the Investment Agreement, TransAlta formed a Hydro Assets Operating Committee consisting of two representatives from Brookfield and two representatives from TransAlta to collaborate in connection with the operation and maximization of the value of the Alberta Hydro Assets. In connection with this, the Company has committed to pay Brookfield an annual fee of \$1.5 million for six years beginning May 1, 2019.

Extended Mothballing of Sundance Unit 3 and Unit 5

On March 8, 2019, we announced that the AESO granted the extension of the mothballing for the Sundance Units described below:

- Sundance Unit 3 until Nov. 1, 2021, extended from the previous date of April 1, 2020; and
- Sundance Unit 5 will remain mothballed until Nov. 1, 2021, extended from the previous date of April 1, 2020.

The extensions were requested by us based on the Company's assessment of market prices and market conditions. Subsequently, on July 31, 2020, we retired Sundance Unit 3 and on Sept. 28, 2021, we suspended the repowering of Sundance Unit 5.

Corporate 2021

TransAlta Renewables Closes \$173 Million Green Bond

On Dec. 6, 2021, TransAlta Renewables' indirect wholly owned subsidiary, Windrise Wind LP, secured a green bond financing by way of private placement for \$173 million. The bonds are amortizing, bear interest from their date of issue at a rate of 3.41 per cent per annum and mature on Sept. 30, 2041. The bonds are aligned with the four components of the 2021 International Capital Market Association Green Bond Principles.

Windrise Wind LP used proceeds of the bonds, among other things, to repay all amounts owing pursuant to an intercompany construction loan agreement entered into in connection with the Windrise facility, make advances to TransAlta Renewables on a subordinated basis pursuant to an intercompany loan agreement, finance or refinance eligible green projects, including renewable energy facilities and to fund a construction reserve account.

Announced Common Share Dividend Increase

On Sept. 28, 2021, the Company announced that the Board approved an 11 per cent increase to its common share dividend and declared a dividend of \$0.05 per common share paid on Jan. 1, 2022, to shareholders of record at the close of business on Dec. 1, 2021. The quarterly dividend of \$0.05 per common share represents an annualized dividend of \$0.20 per common share.

2021 Clean Electricity Growth Plan

On Sept. 28, 2021, the Company held our 2021 Investor Day and announced our Clean Electricity Growth Plan. The Company has established targets to deliver 2 GW of incremental renewables capacity with a targeted investment of \$3 billion by 2025. TransAlta will accelerate its growth with a focus on customer-centred renewables and storage through the execution of its 3 GW development pipeline.

TransAlta Renewables is named on the Best 50 Corporate Citizens List

On July 6, 2021, the Company announced that TransAlta Renewables was recognized by Corporate Knights as one of the Best 50 Corporate Citizens for 2021. The Best 50 Corporate Citizens list evaluates and ranks Canadian corporations against a set of 24 key performance indicators covering ESG indicators relative to their industry peers and using publicly available information. The Company is committed to continuous improvement on key ESG issues and ensuring its economic value creation is balanced with a value proposition for the environment and its communities.

Equity, Diversity and Inclusion Program

On May 3, 2021, TransAlta announced that it had received certification from a third party that specializes in measuring and tracking ED&I metrics for the Company's continued commitment to and meaningful performance on ED&I in the workplace. The Company developed a five year ED&I strategy that was approved by the Board in August 2021, and executed the first year of that ED&I strategy.

Normal Course Issuer Bid

On May 25, 2021, the TSX accepted the notice filed by the Company to implement a normal course issuer bid ("NCIB") for a portion of our common shares. Pursuant to the NCIB, TransAlta may repurchase up to a maximum of 14,000,000 common shares, representing approximately 7.16 per cent of its public float of common shares as at May 18, 2021. Purchases under the NCIB may be made through open market transactions on the TSX and any alternative Canadian trading platforms on which the common shares are traded, based on the prevailing market price. Any common shares purchased under the NCIB will be cancelled. The period during which TransAlta is authorized to make purchases under the NCIB commenced on May 31, 2021, and ends on May 30, 2022, or such earlier date on which the maximum number of common shares are purchased under the NCIB or the NCIB is terminated at the Company's election. No common shares were repurchased under the current or previous NCIB in 2021.

Favourable Resolution of Disputes

The Company had been engaged in a dispute with Fortescue Metals Group ("FMG") as a result of FMG's purported termination of the South Hedland PPA. On May 2, 2021, the Company 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 recorded as revenue in the fourth quarter of 2021, while all other balances previously provided for have been reversed. The settlement has resulted in FMG continuing as a customer of the South Hedland facility.

On April 23, 2019, the Mangrove Partners Master Fund Ltd. ("Mangrove") commenced an action in the Ontario Superior Court of Justice naming the Company, the members of the Board of Directors on such date, and Brookfield as defendants. Mangrove was seeking to set aside the 2019 Brookfield investment. The parties reached a confidential settlement and the action was discontinued in the Ontario Superior Court of Justice on April 30, 2021.

Keephills Unit 1 was taken offline from March 17, 2015, to May 17, 2015, as a result of a large leak in the secondary superheater. TransAlta claimed force majeure under the PPA. ENMAX Energy Corporation, the purchaser under the PPA at the time, did not dispute the force majeure but the Balancing Pool attempted to do so, seeking to recover \$12 million in capacity payment charges it paid to TransAlta while the unit was offline. The parties reached a confidential settlement on April 21, 2021, and this matter is now resolved.

Sustainability-Linked Loan

In March 2021, TransAlta extended its \$1.25 billion syndicated credit facility to June 30, 2025, and converted the facility into a Sustainability-Linked Loan ("SLL"). The facility's financing terms align the cost of borrowing to TransAlta's GHG emission reductions and gender diversity targets, which are part of the Company's overall ESG strategy. The SLL will have a cumulative pricing adjustment to the borrowing costs on the facilities and a corresponding adjustment to the standby fee (the "Sustainability Adjustment"). Depending on performance against interim targets that have been set for each year of the credit facility term, the Sustainability Adjustment is structured as a two-way mechanism and could move either up, down or remain unchanged for each sustainability performance target based on performance. The SLL further underscores TransAlta's dedication to sustainability, including ED&I and emissions reduction.

Management and Board of Directors Changes

On March 31, 2021, Dawn Farrell retired from the Board and as President and Chief Executive Officer of the Company. John Kousinioris succeeded Mrs. Farrell as President and Chief Executive Officer and joined the Board on April 1, 2021. Prior to his appointment as Chief Executive Officer of TransAlta, Mr. Kousinioris held the roles of Chief Operating Officer, Chief Growth Officer and Chief Legal and Compliance Officer and Corporate Secretary with the Company. On April 30, 2021, Brett Gellner, our Chief Development Officer, retired after almost 13 years with TransAlta. Mr. Gellner continues to serve on the Board of Directors of TransAlta Renewables as a non-independent director.

On May 4, 2021, the Company announced the election of four new directors: Ms. Laura W. Folse, Ms. Sarah Slusser, Mr. Thomas O'Flynn and Mr. Jim Reid, who each bring diverse expertise and new perspectives to the Board. Mrs. Georgia Nelson, Mr. Richard Legault and Mr. Yakout Mansour did not stand for re-election and retired from the Board immediately following the annual shareholder meeting on May 4, 2021.

2020

Declaration of a 6% Common Share Dividend Increase

On Dec. 23, 2020, the Company announced a six per cent increase on its common share dividend for the quarter ending March 31, 2021. The quarterly dividend of \$0.045 per common share represents an annualized dividend of \$0.18 per common share, an increase of \$0.01 per common share.

Redemption of Medium-Term Notes

On Nov. 25, 2020, the Company redeemed all of its outstanding and due 5.0 per cent senior unsecured medium-term notes, in the aggregate principal amount of \$400 million. The redemption was funded with cash on hand.

Diversity and Inclusion Pledge

On Nov. 4, 2020, the Company announced that the Board adopted a Diversity and Inclusion Pledge that commits the Company to advancing diversity and inclusion in the workplace. By committing to this pledge, the Company will seek to remove systemic barriers that may prevent diverse employees from thriving, including visible minorities, Indigenous people, members of the LGBTQ+ community, persons with disabilities, and women. The persistent inequities around the world underscore the urgent need to address and alleviate racial, ethnic, and other tensions, to remove barriers that perpetuate these inequalities and to promote an inclusive working environment for all employees. TransAlta firmly believes that true diversity is good for the economy, it improves corporate performance, drives growth, and enhances employee engagement. The Diversity and Inclusion Pledge acknowledges these challenges and seeks to: (a) encourage conversations about diversity and inclusion within the workplace; (b) expand education regarding diversity, equality and inclusion; (c) create best practices that result in the establishment of programs and initiatives relating to diversity and inclusion within the workplace; and (d) drive accountability by regularly reporting and evaluating the success of the Company's programs and initiatives.

TEC Hedland Pty Ltd. ("TEC") Secures AU\$800 Million Financing

On Oct. 22, 2020, TEC, a subsidiary of the Company, closed an AU\$800-million senior secured note offering ("TEC Notes"), by way of a private placement, which is secured by, among other things, a first-ranking charge over all assets of TEC. The TEC 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 TEC Notes have a rating of BBB by Kroll Bond Rating Agency.

TransAlta Renewables has received \$480 million (AU\$515 million) of the proceeds from the offering of the TEC Notes through the redemption of certain intercompany structures. An additional AU\$200 million was loaned to TransAlta Renewables by TransAlta Energy (Australia) Pty Ltd., which is a subsidiary of TransAlta. The loan bears interest at 4.32 per cent and will be repaid by Oct. 23, 2022, or on demand. The remaining proceeds from the offering of the TEC Notes were set aside for required reserves and transaction costs. TransAlta Renewables used a portion of the proceeds from the redemption and the intercompany loan to repay existing indebtedness on its credit facility and to acquire the asset and economic interests noted above.

COVID-19

The World Health Organization declared a Public Health Emergency of International Concern relating to COVID-19 on Jan. 30, 2020, which they subsequently declared, on March 11, 2020, as a global pandemic.

The Company continues to operate under its business continuity plan, which is focused on ensuring that: (i) employees who can work remotely do so; and (ii) employees who operate and maintain our facilities, and who are not able to work remotely, are able to work safely and in a manner that ensures their health and safety. TransAlta has adopted local public health authority and government guidelines in all jurisdictions in which we operate to promote the health and safety of all employees and contractors with our health and safety protocols. All of TransAlta's offices and sites follow health screening and social distancing protocols, including personal protective equipment. Employees can be exempted from rapid testing if they are able to provide proof of vaccination. Further, TransAlta maintains travel limitations that are aligned to local jurisdictional guidance, enhanced cleaning procedures, revised work schedules, contingent work teams and the reorganization of processes and procedures to minimize any workplace transmission of the virus.

Notwithstanding the challenges associated with the pandemic, all of our facilities continue to remain fully operational and are capable of meeting our customers' needs, with the exceptions of the Kent Hills 1 and 2 wind facilities, which as described above, is not related to the pandemic. The Company continues to work and serve all of our customers and counterparties under the terms of their contracts. We have not experienced interruptions to service requirements as a result of COVID-19. Electricity and steam supply continue to remain a critical service requirement to all of our customers and have been deemed an essential service in our jurisdictions.

The Company continues to maintain a strong financial position due in part to its long-term contracts and hedged positions and its financial liquidity.

TransAlta Declares Increased Common Dividend

On Jan. 16, 2020, we declared an increase in the annualized dividend to \$0.17 per common share, representing a 6.25 per cent increase over the prior dividend level.

TransAlta Appoints John P. Dielwart as the Chair of the Board

On Jan. 16, 2020, we announced that John P. Dielwart would be appointed Chair of the Board effective immediately following the retirement of Ambassador Gordon D. Giffin at the 2020 annual meeting of shareholders. Mr. Dielwart became Chair effective April 21, 2020.

2019

Favourable Conclusion Regarding the Sundance B and C PPAs Termination Payment

On Aug. 26, 2019, we announced that we were successful in our arbitration with the Balancing Pool for the remaining payment related to the termination of the Sundance B and C PPA. As a result of the arbitration decision, we received the full amount that we had been seeking to recover, \$56 million plus GST and interest, from the Balancing Pool. This payment related to TransAlta's historical investments in certain mining and corporate assets that we believed should have been included in the net book value calculation of the PPAs that had been disputed by the Balancing Pool.

Appointment of Chief Financial Officer

On May 16, 2019, we appointed Todd Stack as our Chief Financial Officer. Mr. Stack previously served as Managing Director and Corporate Controller of the Company and was responsible for providing leadership and direction over TransAlta's financial activities, corporate accounting and reporting, tax, and corporate planning.

Strategic Investment by Brookfield

On March 22, 2019, the Company entered into an Investment Agreement whereby Brookfield agreed to invest \$750 million in the Company through the purchase of exchangeable securities, which are exchangeable by Brookfield into an equity ownership interest in TransAlta's Alberta hydro assets in the future at a value based on a multiple of the Alberta hydro assets' future-adjusted EBITDA. See "*General Development of the Business - Three-Year History - Generation and Business Development - 2019 - Strategic Investment by Brookfield Renewable Partners*" section of this AIF.

Business of TransAlta

Our Hydro, Wind and Solar, Gas and Energy Transition business segments are responsible for operating and maintaining our electrical generation facilities in Canada, Australia, and the US. Our Energy Marketing segment is responsible for marketing and scheduling our merchant asset fleet outside of Alberta along with procurement of gas, transport and storage to our gas fleet, providing intellectual knowledge to support our growth team, and generating a stand-alone gross margin separate from our asset business through a leading North American energy marketing platform. All the segments are supported by a Corporate segment.

As the Company continues its transformation into a leading clean electricity company, it is expected that the proportion of revenue attributable to the Energy Transition business unit will decline relative to the other business units. In addition, the Company continues to transition to a leaner organization through continuous optimization with a reduced cost structure to support the new business model.

The following table identifies each revenue-generating business segment's contribution to revenues as at Dec. 31, 2021:

	2021 Revenues ⁽¹⁾	2020 Revenues ⁽¹⁾
Hydro	14%	7%
Wind and Solar	11%	16%
Gas	41%	37%
Energy Transition	26%	34%
Energy Marketing	8%	6%

Note:

(1) Includes 100 per cent of the revenue of TransAlta Renewables or its subsidiaries, as well as facilities in which TransAlta Renewables or one of its subsidiaries has an economic interest. We own, directly or indirectly, an aggregate interest of approximately 60 per cent of TransAlta Renewables.

For further information on our segment earnings and assets see the audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see the "Documents Incorporated by Reference" section of this AIF.

The following sections of this AIF provide detailed information on facilities by geographic location and fuel type.

Hydro Business Segment

The Hydro business segment holds an interest in 925 net MW. The facilities are located in British Columbia, Alberta and Ontario.

As well as contracting for power, we enter into long-term and short-term contracts to sell the environmental attributes from the merchant hydro facilities. These activities help to ensure earnings stability from these assets. Generally, for facilities under long-term contract, the benefit of the environmental attributes generated flow through to the contract holder.

The following table summarizes our hydroelectric facilities as at Dec. 31, 2021:

Facility Name	Province/ State	Nameplate Capacity (MW) ⁽¹⁾	Consolidated Interest	Gross Installed Capacity ⁽¹⁾	Ownership	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Alberta - Bow River System									
Barrier ⁽³⁾	AB	13	100%	13	100%	13	1947	Merchant	-
Bearspaw ⁽³⁾	AB	17	100%	17	100%	17	1954	Merchant	-
Cascade ⁽³⁾	AB	36	100%	36	100%	36	1942, 1957	Merchant	-
Ghost ⁽³⁾	AB	54	100%	54	100%	54	1929, 1954	Merchant	-
Horseshoe ⁽³⁾	AB	14	100%	14	100%	14	1911	Merchant	-
Interlakes ⁽³⁾	AB	5	100%	5	100%	5	1955	Merchant	-
Kananaskis ⁽³⁾	AB	19	100%	19	100%	19	1913, 1951	Merchant	-
Pocaterra	AB	15	100%	15	100%	15	1955	Merchant	-
Rundle ⁽³⁾	AB	50	100%	50	100%	50	1951, 1960	Merchant	-
Spray ⁽³⁾	AB	112	100%	112	100%	112	1951, 1960	Merchant	-
Three Sisters ⁽³⁾	AB	3	100%	3	100%	3	1951	Merchant	-
Alberta - Oldman River System									
Belly River ^{(4) (5)}	AB	3	100%	3	100%	3	1991	Merchant	-
St. Mary ^{(4) (5)}	AB	2	100%	2	100%	2	1992	Merchant	-
Taylor ^{(4) (5)}	AB	13	100%	13	100%	13	2000	Merchant	-
Waterton ^{(4) (5)}	AB	3	100%	3	100%	3	1992	Merchant	-
Alberta - North Saskatchewan River System									
Bighorn ⁽³⁾	AB	120	100%	120	100%	120	1972	Merchant	-
Brazeau ⁽³⁾	AB	355	100%	355	100%	355	1965, 1967	Merchant	-
BC Hydro Facilities									
Akolkolex ^{(4) (5)}	BC	10	100%	10	100%	10	1995	BC Hydro	2046
Pingston ^{(4) (5)}	BC	46	50%	23	100%	23	2003, 2004	BC Hydro	2023
Bone Creek ^{(4) (5)}	BC	19	100%	19	100%	19	2011	BC Hydro	2031
Upper Mamquam ^{(4) (5)}	BC	25	100%	25	100%	25	2005	BC Hydro	2025
Ontario Hydro Facilities									
Appleton ⁽⁴⁾	ON	1	100%	1	100%	1	1994	IESO	2030
Galetta ^{(4) (6)}	ON	2	100%	2	100%	2	1998	IESO	2030
Misema ⁽⁴⁾	ON	3	100%	3	100%	3	2003	IESO	2027
Moose Rapids ⁽⁴⁾	ON	1	100%	1	100%	1	1997	IESO	2030
Ragged Chute ⁽⁴⁾	ON	7	100%	7	100%	7	1991	IESO	2029
Total Hydroelectric Capacity		948		925		925			

Notes:

(1) MW are rounded to the nearest whole number. The gross installed capacity reflects the basis of consolidation of underlying assets owned, whereas net capacity ownership interest deducts capacity attributable to non-controlling interest in these assets and is calculated after consolidation of underlying assets. Net capacity ownership interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at Dec. 31, 2021, TransAlta owned, directly or indirectly, approximately 60 per cent of the common shares in TransAlta Renewables.

(2) Where no contract expiry date is indicated, the facility operates as merchant.

(3) These facilities form part of the "hydro assets" subject to the Brookfield Investment. See the "General Development of the Business - Three-Year History - 2019 - Strategic Investment by Brookfield Renewable Partners" section of this AIF. The Alberta PPAs in respect of these assets expired on Dec. 31, 2020, and are now operated as merchant.

(4) Facility owned by TransAlta Renewables.

(5) These facilities are EcoLogo® certified. EcoLogo certification is granted to products with environmental performance that meet or exceed all government, industrial safety and performance standards.

(6) Galetta was originally built in 1907, but was retrofitted in 1998.

Bow River System

Barrier

Barrier is a hydroelectric facility with installed capacity of 13 MW located on the Kananaskis River near Seebe, Alberta. It has been operating since 1947. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates Emission Performance Credits ("EPCs") under the Alberta Technology Innovation and Emissions Reduction ("TIER") system.

Bearspaw

Bearspaw is a hydroelectric facility with installed capacity of 17 MW located on the Bow River in Calgary, Alberta. It has been operating since 1954. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Cascade

Cascade is a hydroelectric facility with installed capacity of 36 MW located on the Cascade River in Banff National Park, Alberta. We purchased this facility from the Government of Canada in 1941. The following year, we built a new dam and power plant to replace the original, and then, in 1957, added a second generating unit. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Ghost

Ghost is a hydroelectric facility with installed capacity of 54 MW located on the Bow River near Cochrane, Alberta. It has been operating since 1929. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Horseshoe

Horseshoe is a run-of-river hydroelectric facility with installed capacity of 14 MW located on the Bow River near Seebe, Alberta. It has been operating since 1911. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Interlakes

Interlakes is a hydroelectric facility with installed capacity of 5 MW located at Kananaskis Lakes, Alberta. It has been operating since 1955. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Kananaskis

Kananaskis is a run-of-river hydroelectric facility with installed capacity of 19 MW located on the Bow River in Seebe, Alberta. It has been operating since 1913. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Pocaterra

Pocaterra is a hydroelectric facility with installed capacity of 15 MW located at Kananaskis Lakes, Alberta. It has been operating since 1955. Generation from the facility is sold in the Alberta spot market and creates EPCs under the TIER system.

Rundle

Rundle is a hydroelectric facility with installed capacity of 50 MW located in Canmore, Alberta, on the Spray system. The facility uses water from the Spray Lakes storage reservoir. It has been operating since 1951. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Spray

Spray is a hydroelectric facility with installed capacity of 112 MW located in Canmore, Alberta, on the Spray system. The plant uses water from the Spray Lakes storage reservoir. It has been operating since 1951. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Three Sisters

Three Sisters is a hydroelectric facility with installed capacity of 3 MW located at the base of the Three Sisters Dam near Canmore, Alberta, on the Spray system. The facility uses water from the Spray Lakes storage reservoir. It has been operating since 1951. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market.

Waterton-St. Mary River System*Belly River*

The Belly River facility is owned by TransAlta Renewables. Belly River is a run-of-river hydroelectric facility with installed capacity of 3 MW located on the Waterton-St. Mary Headworks Irrigation Canal System, east of the Waterton Reservoir, approximately 75 kilometres southwest of Lethbridge in Southern Alberta. Due to its location along the irrigation canal, Belly River operates from April to October when water is diverted through the canal as part of the St. Mary Irrigation District Water Management Plan. It has been operating since 1991. We acquire the generation from the facility pursuant to a PPA with TransAlta Renewables ("Renewables PPA"), and subsequently sell such generation in the Alberta spot market.

St. Mary

The St. Mary facility is owned by TransAlta Renewables. St. Mary is a run-of-river hydroelectric facility with installed capacity of 2 MW located at the base of the dam impounding the St. Mary Reservoir, near Magrath, in southern Alberta. It has been operating since 1992. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Taylor

The Taylor facility is owned by TransAlta Renewables. Taylor is a run-of-river hydroelectric facility with installed capacity of 13 MW and is located adjacent to the Taylor Coulee Chute on the Waterton-St. Mary Headworks Irrigation Canal System, which is owned by the Government of Alberta. It has been operating since 2000. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Waterton

The Waterton facility is owned by TransAlta Renewables. Waterton is a run-of-river hydroelectric facility with installed capacity of 3 MW located at the base of the Waterton Dam on the Waterton Reservoir, near Hill Spring, southwest of Lethbridge, Alberta. It has been operating since 1992. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

North Saskatchewan River System

Bighorn

Bighorn is a hydroelectric facility with installed capacity of 120 MW located near Nordegg, Alberta. It has been operating since 1972. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

Brazeau

Brazeau is a hydroelectric facility with installed capacity of 355 MW located near Drayton Valley, Alberta. It has been operating since 1965. The facility operated under an Alberta PPA that expired Dec. 31, 2020. Generation from the facility is currently sold in the Alberta spot market and creates EPCs under the TIER system.

BC Hydro Facilities

Akolkolex

The Akolkolex facility is owned by TransAlta Renewables. Akolkolex is a run-of-river hydroelectric facility with installed capacity of 10 MW located on the Akolkolex River, south of Revelstoke, British Columbia. It has been operating since 1995. The output from the facility is sold to British Columbia Hydro and Power Authority ("BC Hydro") under a PPA that terminates in 2046.

Bone Creek

The Bone Creek facility is owned by TransAlta Renewables. Bone Creek is a run-of-river hydroelectric facility with installed capacity of 19 MW located on Bone Creek, 90 kilometres south of the town of Valemount, British Columbia. It has been operating since 2011. The output from the facility is sold to BC Hydro under a PPA that terminates in 2031.

Pingston

Pingston is a run-of-river hydroelectric facility with installed capacity of 46 MW located on Pingston Creek, southwest of Revelstoke, British Columbia, and down river of the Akolkolex facility. It has been operating since 2003. TransAlta Renewables owns the facility equally with a subsidiary of Brookfield. The output from the facility is sold to BC Hydro under a 20-year PPA that terminates in 2023.

Upper Mamquam

The Upper Mamquam facility is owned by TransAlta Renewables. Upper Mamquam is a run-of-river hydroelectric facility with installed capacity of 25 MW located on the Mamquam River, east of Squamish, British Columbia, and north of Vancouver. It has been operating since 2005. The output from the facility is sold to BC Hydro under a PPA that terminates in 2025.

Ontario Hydro Facilities

Appleton

The Appleton facility is owned by TransAlta Renewables. Appleton is a run-of-river hydroelectric facility with installed capacity of 1 MW located on the Mississippi River, near Almonte, Ontario. The facility has been operating since 1994. Generation from this facility is sold to IESO under a contract that terminates on Dec. 31, 2030.

Galetta

The Galetta facility is owned by TransAlta Renewables. Galetta is a run-of-river hydroelectric facility with installed capacity of 2 MW located on the Mississippi River, near Galetta, Ontario. This facility was originally built in 1907 and retrofitted in 1998. Generation from this facility is sold to the IESO under a contract that terminates on Dec. 31, 2030.

Misema

The Misema facility is owned by TransAlta Renewables. Misema is a run-of-river hydroelectric facility with installed capacity of 3 MW located on the Misema River, close to Englehart, in northern Ontario. This facility has been operating since 2003. Generation from this facility is sold to the IESO under a contract that terminates on May 3, 2027.

Moose Rapids

The Moose Rapids facility is owned by TransAlta Renewables. Moose Rapids is a run-of-river hydroelectric facility with installed capacity of 1 MW located on the Wanapitei River, near Sudbury, in northern Ontario. This facility has been operating since 1997. Generation from this facility is sold to the IESO under a contract that terminates on Dec. 31, 2030.

Ragged Chute

The Ragged Chute facility is owned by TransAlta Renewables. Ragged Chute is a run-of-river hydroelectric facility with installed capacity of 7 MW located on the Montréal River, south of Temiskaming Shores, in northern Ontario. We lease this facility from Ontario Power Generation Inc. and it has been operating since 1991. Generation from this facility is sold to the IESO under a contract that terminates on June 30, 2029.

Wind and Solar Business Segment

As at Dec 31, 2021, the Wind and Solar segment held interests in approximately 1,879 MW of net wind generating capacity. This capacity consists of 12 wind facilities in Western Canada, four in Ontario, two in Québec, three in New Brunswick and five in the US, more specifically in the states of Washington, Wyoming, Minnesota, Pennsylvania, and New Hampshire. The Company also holds a 10 MW utility-scale battery storage in Alberta and 143 MW of solar facilities in the states of Massachusetts and North Carolina.

Wind and solar are not generally a dispatchable fuel. Therefore, in merchant markets, wind and solar assets may not be able to secure the annual average pool price. As such, we make different assumptions in forecast revenue received for generation from a wind or solar asset compared to a dispatchable asset. If these price assumptions and generation production forecasts are not correct, the corresponding revenue received may be reduced. Generation production forecasts are based on the long-term average production forecast for a site, reflecting historical climatic conditions. Within any year there may be variations from this long-term average. In order to forecast generation production, a number of factors have to be assumed based on historic on-site data. For a wind facility, this comprises the wind facility design, including wake and array losses, wind shear and the electrical losses within the site. For a solar facility, long-term energy production depends on panel angle and row spacing, amount of sun, and ambient and environmental conditions at the site. If these assumptions are incorrect then actual production will be higher or lower than the long-term forecast for the site.

As well as contracting for the sale of the power generated, we also enter into long-term and short-term contracts to sell the environmental attributes from the merchant wind facilities. These activities help to ensure earnings consistency from these assets. Generally, for facilities under long-term contract, the purchaser under such long-term contracts also has the benefit of any environmental attributes.

The following table summarizes our Wind and Solar generation facilities as at Dec 31, 2021:

Facility Name	Province / State	Nameplate Capacity (MW) ⁽¹⁾	Consolidated Interest	Gross Installed Capacity ⁽¹⁾	Ownership	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Alberta Wind Facilities									
Ardenville ⁽⁴⁾⁽⁵⁾	AB	69	100%	69	100%	69	2010	Merchant	-
Blue Trail and Macleod Flats ⁽⁴⁾⁽⁵⁾	AB	69	100%	69	100%	69	2009 and 2004	Merchant	-
Castle River ⁽⁴⁾⁽⁵⁾⁽⁶⁾	AB	44	100%	44	100%	44	1997-2001	Merchant	-
Cowley North ⁽⁴⁾⁽⁵⁾	AB	20	100%	20	100%	20	2001	Merchant	-
McBride Lake ⁽⁴⁾⁽⁵⁾	AB	75	50%	38	100%	38	2004	ENMAX	2024
Oldman ⁽⁴⁾⁽⁵⁾	AB	4	100%	4	100%	4	2007	Merchant	-
Sinnott ⁽⁴⁾⁽⁵⁾	AB	7	100%	7	100%	7	2001	Merchant	-
Soderglen ⁽⁴⁾⁽⁵⁾	AB	71	50%	36	100%	36	2006	Merchant	-
Summerview 1 ⁽⁴⁾⁽⁵⁾	AB	68	100%	68	100%	68	2004	Merchant	-
Summerview 2 ⁽⁴⁾⁽⁵⁾	AB	66	100%	66	100%	66	2010	Merchant	-
Windrise ⁽⁴⁾	AB	206	100%	206	100%	206	2021	AESO	2041
Alberta Battery Energy Storage									
WindCharger ⁽⁴⁾	AB	10	100%	10	100%	10	2020	Merchant	-
Eastern Canada Wind Facilities									
Kent Breeze ⁽⁴⁾	ON	20	100%	20	100%	20	2011	IESO	2031
Kent Hills 1 ⁽⁴⁾	NB	96	100%	96	83%	80	2008	NB Power	2035
Kent Hills 2 ⁽⁴⁾	NB	54	100%	54	83%	45	2010	NB Power	2035
Kent Hills 3 ⁽⁴⁾	NB	17	100%	17	83%	14	2018	NB Power	2035
Le Nordais ⁽⁴⁾⁽⁵⁾⁽⁷⁾	QC	98	100%	98	100%	98	1999	Hydro-Québec	2033
Melancthon I ⁽⁴⁾	ON	68	100%	68	100%	68	2006	IESO	2026
Melancthon II ⁽⁴⁾	ON	132	100%	132	100%	132	2008	IESO	2028
New Richmond ⁽⁴⁾⁽⁵⁾	QC	68	100%	68	100%	68	2013	Hydro-Québec	2033
Wolfe Island ⁽⁴⁾	ON	198	100%	198	100%	198	2009	IESO	2029
US Wind and Solar Facilities									
Antrim ⁽³⁾	NH	29	100%	29	100%	29	2019	Partners HealthCare and New Hampshire Electric	2039
Big Level ⁽³⁾	PA	90	100%	90	100%	90	2019	Microsoft	2034
Lakeswind ⁽³⁾	MN	50	100%	50	100%	50	2014	LTC	2034
Mass Solar ⁽³⁾⁽⁷⁾	MA	21	100%	21	100%	21	2012-2015	LTC	2032-2045
North Carolina Solar ⁽³⁾⁽⁷⁾	NC	122	100%	122	100%	122	2019-2021	Duke Energy	2033
Skookumchuck Wind ⁽³⁾	WA	137	49%	67	100%	67	2020	Puget Sound Energy	2040
Wyoming Wind ⁽³⁾	WY	140	100%	140	100%	140	2003	LTC	2028
Total Wind and Solar Capacity⁽⁸⁾		2,049		1,907		1,879			

Notes:

(1) MW are rounded to the nearest whole number. The gross installed capacity reflects the basis of consolidation of underlying assets owned, whereas net capacity ownership interest deducts capacity attributable to non-controlling interest in these assets and is calculated after consolidation of underlying assets. Net capacity ownership interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at Dec. 31, 2021, TransAlta owned, directly or indirectly, approximately 60 per cent of the common shares in TransAlta Renewables.

(2) Where no contract expiry date is indicated, the facility operates as merchant.

(3) TransAlta Renewables owns an economic interest in the facility.

(4) Facility owned directly by TransAlta Renewables.

(5) These facilities are EcoLogo® certified. EcoLogo certification is granted to products with environmental performance that meet or exceed all government, industrial safety and performance standards.

(6) Includes seven additional turbines at other locations.

(7) Comprised of multiple facilities.

(8) Excludes White Rock East and White Rock West Wind Projects, Garden Plain Wind and Northern Goldfields Solar, which are wind and solar projects, respectively, and are currently under construction.

All of the electricity generated and sold by our wind generating facilities within Alberta and Quebec, excluding Windrise, are from facilities that are EcoLogo certified. We are an EcoLogo certified distributor of alternative source electricity through Environment Canada's Environmental Choice Program.

Alberta Wind Facilities

Ardenville

The Ardenville facility is owned by TransAlta Renewables. Ardenville is a 69 MW wind facility located approximately 14 kilometres south of Fort Macleod, Alberta. We constructed the project, which began commercial operations on Nov. 10, 2010. In 2018, the Ardenville wind facility was granted an extension to create offset credits under TIER until October 2023. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Blue Trail and Macleod Flats

The Blue Trail facility is owned by TransAlta Renewables. Blue Trail is a 66 MW wind facility located in southern Alberta, that began commercial operations in November 2009. The Blue Trail wind facility creates carbon offset credits under TIER until September 2022 and was entitled to receive ecoENERGY payments until November 2019. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

The Macleod Flats facility is owned by TransAlta Renewables. Macleod Flats consists of a single 3 MW turbine and is located near Fort Macleod. It was commissioned in 2004 and was purchased by us in 2009. This facility generates renewable credits. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Castle River

The Castle River facility is owned by TransAlta Renewables. Castle River is located southwest of Pincher Creek, Alberta. This facility also includes an additional six turbines, totaling 4 MW, that are located individually in the Cardston County and Hill Spring areas of south western Alberta. This facility began commercial operations in stages from November 1997 through to July 2001. This facility generates EPCs under the TIER system. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Cowley North

The Cowley North facility is owned by TransAlta Renewables. Cowley North is a 20 MW wind facility located near the towns of Cowley and Pincher Creek, in southern Alberta. This facility began commercial operations in the fall of 2001. The Cowley North facility creates EPCs under the TIER system. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

McBride Lake

The McBride Lake facility is owned by TransAlta Renewables. The 75 MW McBride Lake wind facility is located south of Fort Macleod, Alberta. This facility began commercial operations in April 2004. Generation from this facility is sold under a 20-year PPA with ENMAX Energy Corp. that terminates in 2024. This facility generates EPCs under the TIER system.

Oldman

The Oldman facility is owned by TransAlta Renewables. The 3.6 MW Oldman facility is located east of the Oldman River Dam, near Pincher Creek in southern Alberta. The Oldman facility has been in operation since March 2007. Interconnection of the facility is through the Fortis Alberta distribution grid. In 2021, TransAlta Renewables acquired 100 per cent of the project from a subsidiary of Boralex. This facility sells energy into the Alberta merchant market and generates EPCs under the TIER system.

Sinnott

The Sinnott facility is owned by TransAlta Renewables. Sinnott has a total installed capacity of 7 MW that consists of five 1.3 MW Nordex N60 wind turbines on 65-metre towers, and is located directly east of the Cowley North wind facility and north of Pincher Creek, Alberta. This facility began commercial operations in the fall of 2001. The Sinnott wind facility creates EPCs under the TIER system. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Soderglen

The Soderglen facility is owned by TransAlta Renewables. Soderglen is a 71 MW facility located southwest of Fort Macleod. This facility began commercial operations in September 2006. The Soderglen wind facility creates EPCs under the TIER system. TransAlta Renewables owns the facility equally with CNOOC Petroleum North America ULC. We acquire 50 per cent of the the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market (which excludes that portion of generation that is owned by CNOOC Petroleum North America ULC).

Summerview 1

The Summerview 1 facility is owned by TransAlta Renewables. Summerview 1 is a 68 MW wind facility located approximately 15 kilometres northeast of Pincher Creek, Alberta. We constructed Summerview and it began commercial operations in 2004. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market. The Summerview 1 facility creates EPCs under the TIER system.

Summerview 2

The Summerview 2 facility is owned by TransAlta Renewables. Summerview 2 is a 66 MW wind facility located approximately 15 kilometres northeast of Pincher Creek, Alberta. This facility began commercial operations in September 2004. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market. The Summerview 2 wind facility creates carbon offset credits under TIER until November 2022, at which time the facility will become an opt-in facility under TIER.

WindCharger

WindCharger is Alberta's first utility-scale battery storage facility. The facility has a nameplate capacity of 10 MW and a total storage capacity of 20 MWh. WindCharger is located in southern Alberta in the Municipal District of Pincher Creek next to the existing Summerview wind facility substation. The energy storage project achieved commercial operations on Oct. 15, 2020. WindCharger stores energy produced by the nearby Summerview 2 wind facility and discharges it into the Alberta electricity grid at times of high peak demand. The project received co-funding support from Emissions Reduction Alberta. WindCharger was acquired by TransAlta Renewables on Aug. 1, 2020. The Company executed a 20-year battery storage usage contract with TransAlta Renewables, whereby the Company pays a fixed-monthly capacity charge for the exclusive right to operate and dispatch the battery in the Alberta spot market.

Windrise

Windrise is a 206 MW wind facility situated on 11,000 acres of land located in the county of Willow Creek. The Windrise facility is the Company's largest wind farm to-date, and has a 20-year offtake agreement with the AESO. Commercial operation of the Windrise wind facility was achieved on Nov. 10, 2021. TransAlta Renewables acquired the Windrise facility on Feb. 26, 2021.

Garden Plain

The Garden Plain wind project is currently under construction and is located approximately 30 kilometres north of Hanna, Alberta. The facility will consist of 26 Siemens-Gamesa SGRE SG-145 turbines with a nameplate capacity of 130 MW and has a target commercial operation date ("COD") in the second half of 2022. Pembina and TransAlta have entered into an 18-year PPA for 100 MW, commencing on the COD of Garden Plain. Under a separate agreement, Pembina has the option to purchase a 37.7 per cent interest in the project. TransAlta is currently marketing the remaining 30 MW of the facility to commercial and industrial electricity customers that are looking to reduce the carbon intensity of their operations. To the extent contracts for the remaining 30 MW are not secured, the excess energy will be offered into the Alberta spot market. See the "General Development of the Business – Three-Year History" section of this AIF.

Eastern Canada Wind Facilities

Kent Breeze

Kent Breeze is a 20 MW wind facility located in Thamesville, Ontario and comprises eight 2.5 MW GE wind turbines on 85-metre towers. This facility began commercial operations in 2011. Generation from this facility is sold to the IESO. On May 31, 2018, this facility was acquired by TransAlta Renewables.

Kent Hills 1

The Kent Hills 1 facility is owned by TransAlta Renewables. The 96 MW Kent Hills 1 wind facility, in which TransAlta Renewables has an 83 per cent interest, consists of 32 3.0 MW Vestas V90 wind turbines on 80-metre towers, and is located near Moncton, New Brunswick. This facility began commercial operations in December 2008. Natural Forces Technologies Inc., a wind developer based in Atlantic Canada, co-developed this project with TransAlta and exercised its option to purchase 17 per cent of the Kent Hills 1 facility in May 2009. Generation from this facility is sold under a 25-year PPA with New Brunswick Power that terminates in 2033. On June 1, 2017, we extended the term of the PPA by two years to 2035.

On Sept. 27, 2021, a single tower failure occurred at Kent Hills 2 resulting in extensive engineering and assessment of the Kent Hills 1 and 2 sites to determine the cause of the failure. Following the extensive independent engineering assessments and root cause failure analysis, it was determined that all 32 turbine foundations at the Kent Hills 1 site require a full foundation replacement. The root cause failure analysis indicated that deficiencies in the original design of the foundations have caused subsurface crack propagation within the foundations and that the foundations must be replaced. The Company is in the process of planning the rehabilitation of the wind sites and currently expects the foundations to be fully replaced by the end of 2023. Based on the recommendations of independent engineers, and in order to maintain the safety of the affected sites and turbines, the wind turbines will cease to operate until their associated foundations are replaced. See the "General Development of the Business – Three-Year History" section of this AIF.

Kent Hills 2

The Kent Hills 2 facility is owned by TransAlta Renewables. The 54 MW Kent Hills 2 wind facility expansion, in which TransAlta Renewables has an 83 per cent interest, consists of 18 3.0 MW Vestas V90 wind turbines on 80-metre towers. Natural Forces Technologies Inc. owns the remaining 17 per cent interest. The facility began commercial operations in November 2010. Generation from this facility is sold under a 25-year PPA with New Brunswick Power that terminates in 2035. Kent Hills 2 received ecoENERGY payments until November 2020.

It was determined, following the extensive independent engineering assessments and root cause failure analysis of the Kent Hills 1 and 2 facilities that all 18 turbine foundations at the Kent Hills 2 site require a full foundation replacement. Based on the recommendations of independent engineers, and in order to maintain the safety of the affected sites and turbines, the Kent Hills 2 wind turbines will cease to operate until their associated foundations are replaced. See the "General Development of the Business – Three-Year History" section of this AIF.

Kent Hills 3

TransAlta Renewables has an 83 per cent interest in the Kent Hills 3 facility. On June 1, 2017, we signed a PPA with New Brunswick Power for the further expansion of the Kent Hills wind facility. This expansion project, Kent Hills 3, reached commercial operations on Oct. 19, 2018, and added five 3.45 MW turbines to the Kent Hills fleet for an additional 17.25 MW at the site, bringing total generating capacity of the three Kent Hills facilities to 167 MW. The Kent Hills 3 PPA expires in 2035. The foundation issues at the Kent Hills 1 and Kent Hills 2 sites are unique to the design of those sites and there is no indication of any foundation issue at Kent Hills 3.

Le Nordais

The Le Nordais facility is owned by TransAlta Renewables. The 98 MW Le Nordais wind facility is located at two locations: Cap-Chat with 55.5 MW of installed capacity consisting of 74 750 kW NEG-Micon wind turbines on 55-metre towers; and Matane with 42 MW of installed capacity consisting of 56 750 kW NEG-Micon wind turbines on 55-metre towers. Le Nordais is located on the Gaspé Peninsula of Québec. It began commercial operations in 1999. Generation from this facility is sold to Hydro-Québec and it generates RECs for sale.

Melancthon I

The Melancthon I facility is owned by TransAlta Renewables. Melancthon I is a 68 MW wind facility consisting of 45 1.5 MW GE wind turbines on 80-metre towers, and is located in Melancthon Township near Shelburne, Ontario. This facility began commercial operations in March 2006. Generation from this facility is sold to the IESO pursuant to a PPA that terminates in 2026.

Melancthon II

The Melancthon II facility is owned by TransAlta Renewables. Melancthon II is a 132 MW wind facility consisting of 88 1.5 MW GE wind turbines on 80-metre towers, and is located adjacent to Melancthon I, in Melancthon and Amaranth townships, Ontario. This facility began commercial operations in November 2008. Generation from this facility is sold to the IESO pursuant to a PPA that terminates in 2028.

New Richmond

The New Richmond facility is owned by TransAlta Renewables. New Richmond is a 68 MW wind facility consisting of 27 2.0 MW and six 2.3 MW Enercon E82 wind turbines on 100-metre towers, and is located in New Richmond, Québec. This facility began commercial operations in March 2013. Generation from this facility is sold under a 20-year electricity supply agreement with Hydro-Québec Distribution that terminates in 2033.

Wolfe Island

The Wolfe Island facility is owned by TransAlta Renewables. Wolfe Island is a 198 MW wind facility consisting of 86, 2.3 MW Siemens SWT 93 wind turbines on 80-metre towers, and is located on Wolfe Island, near Kingston, Ontario. This facility began commercial operations in June 2009. Generation from this facility is sold to the IESO pursuant to a PPA that terminates in 2029.

US Wind and Solar Facilities

Antrim

The Antrim facility is a 29 MW wind facility located in Antrim, New Hampshire. The wind facility was constructed by the Company and was commissioned in December 2019. The wind facility is fully operational and contracted under two long-term PPAs until 2039 with Partners Healthcare and New Hampshire Electric. On Feb. 28, 2018, TransAlta Renewables acquired tracking preferred shares from the Company that provides TransAlta Renewables with an economic interest in the wind facility. See the "General Developments of the Business – Three-Year History - Generation and Business Development" and "Business of TransAlta – Non-Controlling Interests – TransAlta Renewables" sections of this AIF.

Big Level

The Big Level facility is a 90 MW wind facility located in Potter County, Pennsylvania. The wind facility was constructed by the Company and commissioned in December 2019. The wind facility is fully operational and contracted under a long-term PPA until 2034 with Microsoft. On Feb. 28, 2018, TransAlta Renewables acquired tracking preferred shares from the Company that provides TransAlta Renewables with an economic interest in the wind facility. See the "General Developments of the Business – Three-Year History - Generation and Business Development" and "Business of TransAlta – Non-Controlling Interests – TransAlta Renewables" sections of this AIF.

Lakeswind

The Lakeswind facility is a 50 MW wind facility located near Rollag, Minnesota. The wind facility was acquired in 2015 from an affiliate of Rockland Capital LLC. The wind facility is fully operational and contracted under a long-term PPA until 2034 with several high-quality counterparties. On May 31, 2018, TransAlta Renewables acquired tracking preferred shares from the Company that provides TransAlta Renewables with an economic interest in the wind facility. See the "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*" section of this AIF.

Mass Solar

The Mass Solar facility is a 21 MW solar project consisting of multiple sites located in Massachusetts. The solar facility was acquired in 2015 from an affiliate of Rockland Capital LLC. The operational solar facility is contracted under a long-term PPA with several high-quality counterparties. In addition to revenue generated under the PPA, the project generates solar RECs that expire in 2024. On May 31, 2018, TransAlta Renewables acquired tracking preferred shares from the Company that provide TransAlta Renewables with an economic interest in the solar facility. See the "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*" section of this AIF.

North Carolina Solar

The North Carolina Solar facility is a 122 MW solar project consisting of 20 sites located in North Carolina. The solar facility was acquired in November 2021 from a fund managed by Copenhagen Infrastructure Partners. The facilities are all operational and were commissioned between November 2019 and May 2021. The facilities are secured by long-term PPAs with two subsidiaries of Duke Energy, which have an average remaining term of 12 years that are automatically extended unless terminated by either party. At the closing of the acquisition in November 2021, TransAlta Renewables acquired tracking preferred shares from the Company that provide TransAlta Renewables with an economic interest in the solar facility. See the "*General Development of the Business – Three-Year History – Generation and Business Development*" and "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*" sections of this AIF.

Skookumchuck Wind

The Skookumchuck facility is a 137 MW wind facility located in Lewis and Thurston counties, Washington. It consists of 38 Vestas V136 wind turbines. Skookumchuck began commercial operations on Nov. 7, 2020, and has a 20-year PPA with Puget Sound Energy Inc. On Dec. 1, 2020, the Company acquired a 49 per cent equity interest in the wind facility from its partner Southern Power Company, a subsidiary of Southern Company. TransAlta Renewables acquired the economic interest in Skookumchuck wind facility, which closed on April 1, 2021. See the "*General Development of the Business – Three-Year History – Generation and Business Development*" and "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*" sections of this AIF.

Wyoming

The Wyoming facility is a 140 MW wind facility located near Evanston, Wyoming. It was acquired in December 2013 from an affiliate of NextEra Energy Resources, LLC. The wind facility is contracted under a long-term PPA until 2028 with an investment grade counterparty. TransAlta Renewables holds tracking preferred shares from the Company that provides TransAlta Renewables with an economic interest in the wind facility.

White Rock East and White Rock West

On Dec. 22, 2021, TransAlta executed two long-term Power PPAs for the offtake of 100 per cent of the generation from its 300 MW White Rock East and White Rock West Wind power projects to be located in Caddo County, Oklahoma. The White Rock Wind Projects will consist of a total of 51 Vestas turbines with construction expected to begin in late 2022 and a target commercial operation date in the second half of 2023. TransAlta will construct, operate and own the facility. See the "*General Development of the Business – Three-Year History – Generation and Business Development*" and "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*" sections of this AIF.

Australian Solar Facilities

Northern Goldfields Solar

The Company reached agreement to provide BHP with renewable electricity to its Goldfields-based operations through the construction of the Northern Goldfields Solar Project. The project consists of 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 our existing 169 MW SCE North remote network in Western Australia.

Gas Business Segment

The following table summarizes our natural gas-fired generation facilities as at Dec. 31, 2021:

Facility Name	Province/ State	Nameplate Capacity (MW) ⁽¹⁾	Consolidated Interest	Gross Installed Capacity ⁽¹⁾	Ownership	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Alberta Gas Facilities									
Fort Saskatchewan ⁽³⁾	AB	118	60%	71	50%	35	1999	Dow Chemical/ Merchant	2029
Keephills Unit No. 2 ⁽⁴⁾	AB	395	100%	395	100%	395	1984	Merchant	-
Keephills Unit No. 3 ⁽⁴⁾	AB	463	100%	463	100%	463	2011	Merchant	-
Poplar Creek ⁽⁵⁾	AB	230	100%	230	100%	230	2001	Suncor	2030
Sheerness Unit No. 1 ⁽³⁾⁽⁴⁾	AB	400	50%	200	50%	100	1986	Merchant	-
Sheerness Unit No. 2 ⁽³⁾⁽⁴⁾	AB	400	50%	200	50%	100	1990	Merchant	-
Sundance Unit No. 6 ⁽⁴⁾	AB	401	100%	401	100%	401	1980	Merchant	-
Total Alberta Gas Capacity		2,407		1,960		1,724			
Eastern Canada and US Gas Facilities									
Ada ⁽⁶⁾	MI	29	100%	29	100%	29	1991	Consumers Energy/ Amway	2026
Ottawa ⁽³⁾	ON	74	100%	74	50%	37	1992	LTC/Merchant	2022-2033
Sarnia ⁽⁷⁾	ON	499	100%	499	100%	499	2003	LTCs	2025-2032
Windsor ⁽³⁾	ON	72	100%	72	50%	36	1996	IESO/ Merchant	2031
Total Eastern Canada and US Gas Capacity		674		674		601			
Australian Gas Facilities									
Parkeston ⁽⁶⁾⁽⁸⁾	WA ⁽¹¹⁾	110	50%	55	100%	55	1996	Northern Star/ Merchant	2026
South Hedland ⁽⁶⁾⁽⁹⁾	WA ⁽¹¹⁾	150	100%	150	100%	150	2017 ⁽⁹⁾	LTCs ⁽⁹⁾	2042
SC ⁽⁶⁾⁽⁷⁾⁽¹⁰⁾	WA ⁽¹¹⁾	245	100%	245	100%	245	1996	BHP	2038
Fortescue River Gas Pipeline ⁽⁶⁾	WA ⁽¹¹⁾	N/A	100%	N/A	43%	N/A	2015	FMG	2035
Total Australian Gas Capacity		505		450		450			
Total Gas Capacity		3,586		3,084		2,775			

Notes:

- (1) MW are rounded to the nearest whole number. The gross installed capacity reflects the basis of consolidation of underlying assets owned, whereas net capacity ownership interest deducts capacity attributable to non-controlling interest in these assets and is calculated after consolidation of underlying assets. Net capacity ownership interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at Dec. 31, 2021, TransAlta owned, directly or indirectly, approximately 60 per cent of the common shares in TransAlta Renewables.
- (2) Where no contract expiry date is indicated, the facility operates as merchant.
- (3) Our interests in these facilities are through our ownership interest in TransAlta Cogeneration LP ("TA Cogen").
- (4) The Alberta PPA in respect of these assets expired on Dec. 31, 2020, and are now operated as merchant.
- (5) The Poplar Creek facility is operated by Suncor Energy Inc. and ownership of the facility will transfer to Suncor in 2030.
- (6) TransAlta Renewables owns an economic interest in the facility.
- (7) Facility is owned by TransAlta Renewables.
- (8) Plant contracted to October 2026 with early termination options beginning in 2021.
- (9) The South Hedland facility is contracted with FMG and Horizon Power.
- (10) Comprised of four facilities.
- (11) These assets are based in Western Australia.

Alberta Gas Facilities

Fort Saskatchewan

We have a net ownership interest of 30 per cent in the Fort Saskatchewan facility. See the "*Business of TransAlta – Non-Controlling Interests*" section of this AIF. The 118 MW natural gas-fired combined-cycle cogeneration Fort Saskatchewan facility is owned by TA Cogen and Prairie Boys Capital Corporation. During the fourth quarter of 2017, we extended the long-term contract for the Fort Saskatchewan facility providing for the delivery of energy and steam to the customer, Dow Chemical. The contract extension has an initial 10-year term, which began on Jan. 1, 2020, with the option for two five-year extensions. The contract allows our customer to continue to benefit from the operational flexibility of the facility.

Keephills 2

The Keephills 2 facility is located approximately 70 kilometres west of Edmonton, Alberta, and is wholly-owned by TransAlta. Keephills 2 facility is a gas-fired unit that completed its conversion to natural gas in the spring of 2021 and commercial operation was announced on July 19, 2021. Converting to natural gas from coal maintains the unit's current generation capacity and reduces its CO₂e emissions by more than half from approximately 1.04 tonnes of CO₂e per MWh to approximately 0.51 tonnes of CO₂e per MWh in 2021, thereby adding an additional eight years of life under the federal gas-fired regulations. The end of regulatory life for this unit is set for 2037.

Keephills 3

The Keephills 3 facility is located approximately 70 kilometres west of Edmonton, Alberta, and is wholly owned by TransAlta. Keephills 3 facility is a gas-fired unit that completed its conversion to natural gas in the second half of 2021 and commercial operations was announced on Dec. 29, 2021. Converting to natural gas from coal maintains the current generation capacity of the unit and reduces its CO₂e emissions by almost 50 per cent from approximately 0.86 tonnes of CO₂e per MWh to approximately 0.43 tonnes of CO₂e per MWh, thereby adding an additional 10 years of life under the federal gas-fired regulation. The end of regulatory life for this unit is set for 2039.

Poplar Creek

Our Poplar Creek cogeneration facility is located in Fort McMurray, Alberta. On Aug. 31, 2015, the Company restructured its contractual arrangement for the facility's power generation services. The Poplar Creek cogeneration facility had been built and contracted to provide steam and electricity to Suncor's oil sands operations. Under the terms of the new arrangement, Suncor acquired from the Company two steam turbines with an installed capacity of 126 MW and certain transmission interconnection assets. In addition, Suncor assumed full operational control of the cogeneration facility and has the right to use the full 230 MW capacity of the Company's gas generators until Dec. 31, 2030. The ownership of the entire Poplar Creek cogeneration facility will transfer to Suncor in 2030.

Sheerness 1 and 2

The Sheerness facilities are located approximately 200 kilometres northeast of Calgary, Alberta, and are jointly owned by TA Cogen and Heartland Generation Ltd. ("Heartland"). Heartland is responsible for the operation and maintenance of these units. On April 4, 2020, Sheerness Unit 2 was converted to natural gas. Also during 2020, Sheerness Unit 2's capacity was increased from 390 MW to 400 MW following a generator rewind and final testing. On March 31, 2021, Sheerness Unit 1 was converted to natural gas. The Sheerness facility received its last coal shipment in the first quarter of 2021, with the coal stock being fully depleted in July of 2021. On Nov. 9, 2021, Heartland announced that it had completed the transition off-coal at Sheerness. The end of regulatory life for these units is set for 2037.

The generation from Sheerness was sold under an Alberta PPA that expired Dec. 31, 2020. Commencing Jan. 1, 2021, each owner separately offers their share of generation into the Alberta spot market. See the "*Business of TransAlta – Non-Controlling Interests*" section of this AIF.

Sundance 6

The Sundance 6 facility is located approximately 70 kilometres west of Edmonton, Alberta, and is wholly owned by TransAlta. Sundance 6 was a coal-fired unit that completed its conversion to gas in the first half of 2021 and announced its commercial operation on Jan. 31, 2021. Converting to natural gas from coal reduces the unit's CO₂e emissions by half from approximately 1.05 tonnes of CO₂e per MWh to approximately 0.52 tonnes of CO₂e per MWh, thereby adding an additional eight years of life under the federal gas-fired regulations. The end of regulatory life for this unit is set for 2037.

Off-Coal Agreement

On Nov. 24, 2016, we entered into the Off-Coal Agreement with the Government of Alberta pertaining to our cessation of coal-fired emissions from the Keephills 3 and Sheerness coal-fired facilities. The Off-Coal Agreement provides that we are entitled to receive annual cash payments of approximately \$37.4 million, net to TransAlta, from the Government of Alberta commencing in 2017, and terminating in 2030, subject to satisfaction of certain terms and conditions including our cessation of all coal-fired emissions on or before Dec. 31, 2030. Other conditions include maintaining prescribed spending on investment and investment-related activities in Alberta, maintaining a significant business presence in Alberta (including through the maintenance of prescribed employment levels), maintaining spending on programs and initiatives to support the communities surrounding the facilities and the employees of the Company negatively impacted by the phase-out of coal generation, and the fulfillment of all obligations to affected employees, in each case as prescribed by the Off-Coal Agreement.

Eastern Canada and US Gas Facilities

Ottawa

The Ottawa facility is owned by TA Cogen. See the "*Business of TransAlta – Non-Controlling Interests*" section of this AIF. It is a combined-cycle cogeneration facility designed to produce 74 MW of electrical energy. On Aug. 30, 2013, the Company announced the recontracting of the facility with the IESO for a 20-year term, effective January 2014. The Ottawa facility also provides thermal energy to the member hospitals and treatment centres of the Ottawa Health Sciences Centre and the National Defence Medical Centre. The thermal energy contract with the Ottawa Health Sciences Centre has a term to Dec. 31, 2033, with an automatic renewal of five years unless terminated by either party.

Sarnia

The Sarnia cogeneration facility is a 499 MW combined-cycle cogeneration facility located in Sarnia, Ontario, that provides power and steam to nearby industrial facilities owned by ARLANXEO Canada Inc. (formerly LANXESS AG, successor to Bayer Inc.), Nova Chemicals Corporation (Canada) Ltd. ("NOVA"), which in turn supplies INEOS Styrolution, a styrene production facility formerly owned by NOVA, and Suncor Energy Products Partnership. The facility also provides electricity to the IESO under a contract that terminates Dec. 31, 2025.

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 Amended and Restated Energy Supply 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 IESO or enter into agreements with its other industrial customers at the Sarnia cogeneration facility that extend past Dec. 31, 2025, then the Company has the option to provide notice of termination in 2022 that would terminate the Amended and Restated Energy Supply Agreement four years following such notice. The Company is in active discussions with the three other existing industrial customers regarding extensions to their supply of electricity and steam from the Sarnia cogeneration facility on comparable terms. The current contract with the IESO expires on Dec. 31, 2025. On July 19, 2021, the IESO released its Annual Acquisition Report which included draft details for mid- and long-term procurement mechanisms for capacity for 2026 and beyond for existing and new generation. The Company is participating in the consultation process, seeking to secure a contract extension for the Sarnia cogeneration facility following the end of the current contract.

The Sarnia cogeneration facility uses three Alstom 11N2 gas turbines, each capable of generating between 102 MW and 118 MW, one condensing steam turbine that can produce 120 MW, and back-pressure steam turbines capable of generating 56 MW. The facility also incorporates a fired boiler, river water pump houses, and water treatment plants. In 2018, Sarnia's capacity was reduced from 506 MW to 499 MW due to the lay-up of one generator. The reduction in capacity has not impacted the facility's ability to meet its contractual requirements.

Windsor

The Windsor facility is owned by TA Cogen. See the "*Business of TransAlta – Non-Controlling Interests*" section of this AIF. It is a combined-cycle cogeneration facility designed to produce 72 MW of electrical energy. Effective Dec. 1, 2016, the Windsor facility began operating under an agreement with the IESO with a 15-year term for up to 72 MW of capacity. The Windsor facility also provides thermal energy to Stellantis Canada's minivan assembly facility in Windsor under a contract that expires in November 2022, with six successive renewal terms of one year each.

Ada

Ada is a 29 MW contracted cogeneration facility located in Ada, Michigan. The facility is contracted under a long-term PPA and steam sale agreement. The facility has been in operation since 1991, and consists of a single GE LM2500 gas turbine and an ABB steam turbine, and produces approximately 18,000 tonnes of steam hourly. The electricity and steam output of the facility are fully contracted until 2026 with Consumers Energy and Amway. TransAlta completed the acquisition to own and operate the facility on May 19, 2020. On Dec. 23, 2020, TransAlta Renewables acquired the economic interest in the facility, which closed on April 1, 2021.

Australian Gas Facilities

All of our Australian assets are owned, directly or indirectly, by TransAlta Energy (Australia) Pty Ltd. ("TEA"), a wholly owned subsidiary of TransAlta. On May 7, 2015, TransAlta Renewables acquired tracking preferred shares that entitle TransAlta Renewables to the economic interest based on the cash flows broadly equal to the underlying net distributable cash flow of TEA.

Pursuant to the terms of the tracking preferred shares, TransAlta Renewables is entitled to receive, in priority to the common shares in the capital of TEA, quarterly preferential cash dividends. The preferred shares have no residual right to participate in the earnings of TEA. In the event of the liquidation, dissolution or winding-up of TEA or any other distribution of the assets of TEA among its shareholders for the purpose of winding up its affairs, TransAlta Renewables is entitled, subject to applicable law, to receive from TEA as the sole holder of preferred shares, before any distribution of TEA to the holders of the common shares or any other shares ranking junior to the preferred shares, an amount equal to the fair market value of the Australian assets.

Parkeston

The Parkeston facility is a 110 MW dual-fuel natural gas and diesel-fired power station, which we own in partnership through a 50/50 joint venture with Northern Star Resources Limited, which interest was transferred from Newmont Australia Pty Ltd. to Northern Star Resources Limited on Dec. 1, 2021. The Parkeston facility primarily supplies energy to Kalgoorlie Consolidated Gold Mines pursuant to a supply contract that extends to October 2026, with options for early termination available to either party beginning in 2021. We are evaluating potential opportunities to renew or extend the supply contract. Any merchant capacity and energy are sold into Western Australia's wholesale electricity market.

South Hedland

The South Hedland Power Station is a 150 MW combined-cycle power station located near South Hedland, Western Australia. Construction began in early 2015 and the plant achieved commercial operation on July 28, 2017. The facility is contracted with two customers. Capacity of 110 MW is contracted to Horizon Power to 2042. Horizon Power is the state-owned electricity supplier in the region. The second customer is the port operations of FMG for 35 MW of capacity. The Company was engaged in a dispute with FMG as a result of FMG's purported termination of the PPA. On May 2, 2021, the Company entered into a settlement with FMG that resulted in FMG continuing as a customer of the South Hedland facility. See the "General Development of the Business - Three-Year History - Corporate" section of this AIF.

Southern Cross Energy

SCE consists of four natural gas and diesel-fired generation facilities with a combined capacity of 245 MW. On Oct. 22, 2020, SCE replaced and extended its PPA with BHP, which became effective Dec. 1, 2020, and replaced the previous contract that was scheduled to expire Dec. 31, 2023. The amendment to the PPA extended 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 PPA supports BHP's future power requirements and emission reduction targets. The amendments also provide BHP participation rights in integrating renewable electricity generation, including solar, wind, and energy storage technologies into BHP's mining operations located in the Goldfields region, subject to the satisfaction of certain conditions. New-build projects are already in progress under this contract and include the Northern Goldfields Solar and Battery Project in Mount Keith and Leinster. See the "General Development of the Business - Three Year History - Generation and Business Development" section of this AIF.

Evaluation of additional renewable energy supply and carbon emissions reduction initiatives under the extended PPA with BHP are underway.

Fortescue River Gas Pipeline

In 2014, we established the Fortescue River Gas Pipeline joint venture with DBP Development Group. The joint venture (of which TransAlta is a 43 per cent partner) was successfully awarded the contract to design, build, own and operate the 270-kilometre Fortescue River Gas Pipeline to deliver natural gas to the Solomon facility. The pipeline was completed in the first quarter of 2015 and operates under a take-or-pay gas transport agreement with a subsidiary of FMG for an initial term of 20 years. The 16-inch diameter pipeline has an initial free-flow capacity of 64 terajoules (TJ) per day. Under the gas tariff agreement, FMG has the option to purchase the Fortescue River Gas Pipeline commencing March 2020. FMG maintains its option and the joint venture continues to deliver natural gas transportation to the Solomon facility.

Energy Transition Business Segment

The following table summarizes our energy transition facilities as at Dec. 31, 2021:

Facility Name	Province/ State	Nameplate Capacity (MW) ⁽¹⁾	Consolidated Interest	Gross Installed Capacity ⁽¹⁾	Ownership	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date
US Facilities									
Centralia Thermal No. 2	WA	670	100%	670	100%	670	1971	LTC/Merchant	2025
Skookumchuck ⁽²⁾	WA	1	100%	1	100%	1	1970	PSE	2025
Alberta Facilities									
Sundance Unit No. 4 ⁽³⁾	AB	406	100%	406	100%	406	1977	Merchant	-
Keephills Unit No. 1 ⁽⁴⁾	AB	395	100%	395	100%	395	1983	Merchant	-
Total Energy Transition Capacity		1,472		1,472		1,472			

Notes:

(1) MW are rounded to the nearest whole number. The gross installed capacity reflects the basis of consolidation of underlying assets owned, whereas net capacity ownership interest deducts capacity attributable to non-controlling interest in these assets and is calculated after consolidation of underlying assets.

(2) This facility is used to provide a reliable water supply to Centralia Thermal.

(3) The Company discontinued firing with coal and will only operate on gas effective Jan. 1, 2022 and, as a result, the maximum capability of this unit has been reduced to 113 MW.

(4) Keephills Unit No. 1 was retired from service effective Dec. 31, 2021.

Centralia

The 1,340 MW coal-fired facility in Centralia, Washington, consists of two units, the Centralia Thermal Unit No. 1 retired on Dec. 31, 2020, reducing the net capacity from 1,340 MW to 670 MW. This retirement was undertaken pursuant to the TransAlta Energy Transition Bill (chapter 180, Laws of 2011) (the "Bill"), which allowed the Centralia thermal facility to comply with the Washington State's GHG emissions performance standards. Pursuant to the Bill, Centralia Unit 2 will retire effective Dec. 31, 2025.

On July 25, 2012, we announced that we entered into an 11 year agreement to provide electricity from our Centralia thermal facility to Puget Sound Energy. The contract began in 2014 and runs until 2025 when the facility is scheduled to stop burning coal. Under the agreement, Puget Sound Energy purchases 380 MW of base-load power to December 2024 and 300 MW in 2025.

On July 30, 2015, we announced that we will invest US\$55 million over 10 years to support energy efficiency, economic and community development, and education and retraining initiatives in Washington State. The initiative is part of Centralia's transition from coal-fired operations in Washington, beginning on Dec. 31, 2020. The US\$55-million community investment is part of the Bill passed in 2011. The Bill was an agreement between policymakers, environmentalists, labour leaders and TransAlta to transition away from coal in Washington State. Approved funding totals approximately US\$45.8 million as at Dec. 31, 2021.

We sell electricity from the Centralia thermal facility into the Western Electricity Coordinating Council and, in particular, on the spot market in the US Pacific Northwest energy market. Our strategy is to balance contracted and non-contracted sales of electricity to manage production and price risk.

Skookumchuck Hydro

We own a 1 MW hydroelectric generating facility on the Skookumchuck River near Centralia, Washington, and related assets that are used to provide water supply to our generation facilities in Centralia. On Dec. 7, 2020, we entered into an agreement with Puget Sound Energy for Skookumchuck to provide power until 2025.

Sundance 4

Effective Jan. 1, 2022, Sundance Unit 4 discontinued firing with coal and the unit will only operate on gas until it retires on April 1, 2022, resulting in the maximum capacity of the unit being reduced to 113 MW.

Reclamation Activities

Centralia Mine

The Company continues to own a coal mine adjacent to the Centralia facility. The Company stopped mining operations at our Centralia coal mine on Nov. 27, 2006. The mine is currently in the reclamation phase and we continue to perform reclamation and associated work. The coal used to fuel the Centralia facility is sourced from the Powder River Basin in Montana and Wyoming. The Centralia facility has coal contracts in place that expire at the end of 2025.

Under the US "Federal Mine Safety and Health Act", TransAlta must report all citations at its Centralia mine. The mine is currently not in operation and there were no injury incidents reported at the mine during 2021. The total dollar value of all Mine Safety and Health Administration ("MSHA") assessments are not material.

Mine or Operating Name/MSHA Identification Number	Total Number of Section 104 Violations for which Citations Received (#)	Total Number of Orders Issued Under Section 104(b) (#)	Total Number of Citations and Orders for Unwarrantable Failure to Comply with Mandatory Health or Safety Standards Under Section 104(d) (#)	Total Number of Flagrant Violations Under Section 110(b)(2) (#)	Total Number of Imminent Danger Orders Issued Under Section 107(a) (#)	Total Dollar Value of MSHA Assessments Proposed (\$)	Total Number of Mining Related Fatalities (#)	Received Notice of Pattern Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Violations Under Section 104(e) (yes/no)	Legal Actions Initiated or Pending During Period (#)
4500416	28 ⁽¹⁾	0	0	0	0	4,896 ⁽²⁾	0	No	No	0

Notes:

(1) Section 104 Violations: TransAlta Centralia Mining (21) and Coalview Centralia LLC (7).

(2) Citations in Contest: Coalview Centralia LLC (104a - \$125) (104g, l - \$336).

Highvale Mine

We own the Highvale mine that supplied coal to the now gas-powered Sundance and Keephills facilities, and we continue to perform reclamation and associated work at the Highvale mine. Furthering the Clean Electricity Growth Plan, the Company discontinued all mining operations at Highvale mine at the end of 2021. The mine is currently in reclamation phase as of Jan. 1, 2022.

Whitewood Mine

We also own the Whitewood mine, which formerly supplied coal to the now decommissioned Wabamun facility. The Whitewood mine is no longer in operation and we have completed reclamation of the site.

Coal Retirements

In aggregate, TransAlta in Alberta has retired 3,794 MW of coal-fired generation capacity since 2018 while converting 1,659 MW to cleaner-burning natural gas. The below five units have been retired and are no longer in operation.

Keephills 1

On Jan. 1, 2022, we retired Keephills Unit 1. The retirement is consistent with our strategy to transition to clean electricity.

Sundance 1, 2 and 3

On Jan. 1, 2018, we retired Sundance Unit 1 and mothballed Sundance Unit 2. On July 31, 2018, we permanently retired Sundance Unit 2 due to its shorter useful life relative to other units, age, size and the capital requirements needed to return the unit to service. The retirements remain consistent with our strategy to transition to clean electricity.

On July 31, 2020, the Company retired Sundance Unit 3. The retirement decision was driven by TransAlta's assessment of future market conditions, the age and condition of the unit and our ability to supply energy and capacity from our generation portfolio in Alberta.

Sundance 5

On July 29, 2021, in accordance with applicable regulatory requirements, the Company gave notice to the AESO of its intention to retire the mothballed coal-fired Sundance Unit 5 effective Nov. 1, 2021, and to terminate the associated transmission service agreement. In addition, the Company suspended the Sundance Unit 5 repowering project due to escalating costs, changing supply and demand dynamics and forecasted power prices in the Alberta market, as well as risks associated with carbon pricing and the evolving regulatory environment. With the suspension of the project, the Company will redeploy the capital previously allocated to the Sundance Unit 5 repowering project to renewable growth projects.

Energy Marketing Segment

Our Energy Marketing segment provides a number of strategic functions, including the following:

- gathering and analyzing market trends to enable more effective strategic planning and decision making;
- negotiating and entering into contractual agreements with customers for the sale of output from our generation assets, including electricity, steam or other energy-related commodities;
- actively engaging in the trading of power, natural gas and environmental products across a variety of markets; and
- negotiating and managing fuel supply arrangements with third parties for our generation assets, including scheduling, billing and settlement of physical deliveries of natural gas and other fuels.

The Energy Marketing segment also derives additional revenue by providing fee-based asset management services to third parties, earning margins on third-party gas and power transactions, and by trading electricity and other energy commodities (i.e., fuels). The origination and trading activities are primarily focused on the existing asset and customer footprint of the Company.

The segment seeks to measure and manage a number of risks for the assets and for our trading books. The key risk control activities of the Energy Marketing segment include the measurement and management of market, credit, operational, reputational, compliance and legal risks.

The segment uses value at risk, gross margin at risk, and tail risk measures to monitor and manage the risks within our asset and trading portfolios. Value at risk and gross margin at risk measure the potential losses that could occur over a given time period due to changes in market risk factors. Back tests are used to provide further sensitivities to the market risks within the portfolio. Compliance, reputational and legal risks are managed within our legal and compliance policies, and monitoring tools are used to flag compliance risks. The Energy Marketing segment actively manages the risks within approved limits and our policies.

Corporate Segment

Our Corporate segment includes the Company's central finance, legal, administrative, business development and investor relations functions.

Non-Controlling Interests

Our subsidiaries and operations in which we have non-controlling interests are as follows:

TransAlta Renewables

As at Dec. 31, 2021, the Company held, directly and indirectly, approximately 60.1 per cent of the issued and outstanding common shares in TransAlta Renewables. We remain committed to maintaining our position as the majority shareholder of TransAlta Renewables.

The Company provides all management, administrative and operational services required for TransAlta Renewables to operate and administer its assets and to acquire additional assets pursuant to the Management, Administrative and Operational Services Agreement between the Company and TransAlta Renewables. In connection with the services provided under the Management, Administrative and Operational Services Agreement, TransAlta Renewables pays us a fee, which is meant to cover the management, administrative, accounting, planning and other head office costs we incur in connection with providing services to TransAlta Renewables under the Management, Administrative and Operational Services Agreement (the "G&A Reimbursement Fee"). The G&A Reimbursement Fee is payable in equal quarterly installments. On Feb. 28, 2020, the Management, Administrative and Operational Services Agreement was amended so that the G&A Reimbursement Fee will be calculated quarterly in an amount equal to 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. This amendment did not result in any material change to the amount of the G&A Reimbursement Fee. On Aug. 19, 2020, the Management Agreement was amended to clarify adjusted EBITDA calculated before taking into account the G&A Reimbursement Fee. During 2021, the G&A Reimbursement Fee was approximately \$16 million.

The Management, Administrative and Operational Services Agreement has an initial 20-year term; it provides, however, that the agreement shall be automatically renewed for further successive terms of five years after the expiry of the initial term or any renewal term, unless terminated by either party not less than 180 days before the expiration of the initial term or any renewal term, as the case may be. The Management, Administrative and Operational Services Agreement may be terminated by: (a) mutual agreement; (b) TransAlta Renewables upon the occurrence of a material default by TransAlta; and (c) TransAlta (i) upon the occurrence of a material default by TransAlta Renewables or (ii) upon a "Change of Control" of TransAlta Renewables, being the acquisition by any person or group of persons acting jointly and in concert (other than us and our affiliates) of more than 50 per cent of the issued and outstanding common shares. In addition, the Management, Administrative and Operational Services Agreement may be terminated by TransAlta Renewables by a majority vote of its independent directors at any time if TransAlta's direct and indirect ownership in TransAlta Renewables falls below 20 per cent.

TA Cogen

We hold a 50.01 per cent limited partnership interest in TA Cogen, which is an Ontario limited partnership. The remaining 49.99 per cent ownership is held by Canadian Power Holdings Inc., a subsidiary of CK Infrastructure Holdings Limited.

TA Cogen holds a 50 per cent interest in the 800 MW Sheerness thermal generation facility in Alberta and the 118 MW Fort Saskatchewan natural-gas-fired cogeneration facility in Alberta. TA Cogen also holds an interest in two natural-gas-fired cogeneration facilities located in Ontario: (a) the 74 MW Ottawa plant; and (b) the 72 MW Windsor plant. See the "Gas Business Segment" section of this AIF.

PPAs

Renewables PPAs

In August 2013, we entered into long-term Renewables PPAs with certain subsidiaries of TransAlta Renewables (each a "Merchant Subsidiary") providing for the purchase by the Company, for a fixed price, of all of the power produced at the Merchant Subsidiaries. The initial price payable in 2013 by the Company for output under the Renewables PPAs was \$30.00/MWh for wind facilities and \$45.00/MWh for hydroelectric facilities, and these amounts are adjusted annually for changes in the Canadian consumer price index. The Canadian consumer price index adjusted prices for 2021 were \$33.77 per MWh for wind facilities and \$50.66 per MWh for hydroelectric facilities. Under the terms of each Renewables PPA, the Merchant Subsidiary is under no obligation to deliver any specified amount of energy and, in no event, shall any penalties or curtailment payments be payable under the Renewables PPA. The Merchant Subsidiary will assume all operating and generating risk and TransAlta will only be required to purchase power that is actually produced.

Each Renewables PPA has a term of 20 years or end-of-asset life, where end-of-asset life is less than 20 years. Each Renewables PPA may be terminated by: (a) the mutual agreement of the parties; (b) the Merchant Subsidiary upon the occurrence of a material default by TransAlta; and (c) TransAlta: (i) upon the occurrence of a material default by the Merchant Subsidiary; (ii) upon a change of control of TransAlta Renewables; or (iii) upon a change of control of the Merchant Subsidiary.

Alberta PPAs

The Alberta PPAs expired on Dec. 31, 2020, and the facilities previously under the Alberta PPAs are now merchant in the Alberta power market. Until Dec. 31, 2020, many of our Alberta thermal and hydroelectric facilities had operated under Alberta PPAs that established committed capacity and electrical energy generation requirements and availability targets to be achieved by each thermal facility, energy and ancillary services obligations for the hydroelectric facilities, and the price at which electricity was to be supplied. We held the risk or retained the benefit of availability under or above a targeted availability (except for those arising from events considered to be force majeure, in the case of the PPA thermal facilities) and any change in costs (unless due to a change in law) required to maintain and operate the facilities.

Competitive Environment

Power generation is an industry in the midst of an exciting transformation and the demand for electricity is expected to grow significantly over the long term. We also anticipate the generation mix to undergo a major shift in our key markets. In addition to the need to keep pace with ongoing demand growth for electricity, there are several key factors driving the need for significant investment in new generating capacity going forward, which include, without limitation:

- a. Coal-based generation is being retired. These retirements are being driven by asset age, as well as government policy that places a price on emissions and, in some cases, mandates the retirement of these assets.
- b. Government policies that impose costs or provide incentives for lower emission technologies are creating opportunities for renewable generation technologies. These opportunities are coinciding with a significant decline in the installed costs of wind and solar generation and battery storage. As a result, these technologies now account for the majority of the new generating capacity added to many of the world's electricity grids.
- c. Electrification is seen as one of the most effective levers to reduce GHG emissions in many sectors such as transportation. We expect that renewable power generation will continue to be one of the fastest-growing sources of power generation in Canada, Australia and the US.

Alberta

Approximately 57 per cent of our gross installed capacity is located in Alberta. As of Jan. 1, 2022, our portfolio of merchant assets in Alberta is a combination of hydro facilities, wind facilities, a battery storage facility and converted natural-gas-fired thermal facilities. This balance of fuel types provides us with portfolio generation diversification. It also provides us with capacity that can be monetized as ancillary services or dispatched into the energy market during times of supply tightness. We also enter into physical and financial contracts to reduce our exposure to variable power and natural gas prices on our merchant generation.

Alberta's annual demand expanded by approximately 3.0 per cent from 2020 to 2021 as the economy reopened from COVID-19 and stronger market conditions for energy commodities supported power demand in the province. The average pool price in Alberta increased from \$47/MWh in 2020 to \$102/MWh in 2021. Pool prices were higher in each quarter compared to 2020, generally as a result of higher demand in the province and higher natural gas and carbon prices. In addition, the province experienced very strong weather-driven demand in June and July as well as in December.

We expect additional compliance costs as a result of the Canadian federal government's *Greenhouse Gas Pollution Pricing Act*, which sets a national price on GHG emissions with each province expected to implement a GHG policy equivalent to a carbon price of \$170 per tonne by 2030. Our portfolio of assets, we believe provides us with brownfield development opportunities in wind, solar, hydro and gas that give us an advantage over competitors when constructing generation facilities that use these fuel types.

US Pacific Northwest

Our capacity in the US Pacific Northwest is represented by our Centralia coal facility, which declined to 670 MW of operating capacity as of Jan. 1, 2021. The Centralia coal facility is committed to be phased out over the next four years, with the remaining plant capacity scheduled to retire at the end of 2025. In the fourth quarter of 2020, we added a 49 per cent interest in the Skookumchuck wind facility.

System capacity in the region is primarily comprised of hydro and gas generation, with some wind additions over the last few years in response to government programs favouring renewable generation. Demand growth in the region has been limited and further constrained by an emphasis on energy efficiency. We expect to see significant change in this market over the next decade as coal generation is retired and renewable portfolio standard requirements continue to strengthen.

Our competitiveness is enhanced by our long-term contract with Puget Sound Energy for up to 380 MW over the remaining life of the Centralia facility (dropping to 300 MW in 2025). The contract and our hedges allow us to satisfy power requirements from the market during low-priced periods.

Contracted Gas and Renewables

The markets in which we operate for developing or acquiring gas and renewable generation facilities is highly competitive in all markets in which we operate. Our track record as an experienced operator and developer supports our competitive position. We expect, where possible, to reduce our cost of capital and improve our competitive profile through efficient financing structures. In the US, our substantial tax attributes further increase our competitiveness.

In renewables, we are primarily evaluating greenfield opportunities in Western Canada and the US along with acquisitions in markets in which we have existing operations. We maintain highly qualified and experienced development teams to identify and develop these opportunities. In cogeneration, we are working with customers to evaluate behind-the-fence solutions.

Some of our older gas facilities are now reaching the end of their original contract life. These facilities generally have a substantial cost advantage over new builds and we have been able to add value by recontracting these facilities without incurring the significant capital expenditures required for a new facility. We have extended the contracted life of our Ottawa (2033 expiry), Windsor (2031 expiry), Parkeston (2026 expiry), Fort Saskatchewan (2030 expiry), and SCE (2038) facilities.

Australia

The Australian electricity industry is divided among three distinct markets: the National Electricity Market ("NEM") in the East, the Wholesale Electricity Market ("WEM") in Western Australia and the Northern Territory Electricity Market. In addition, there appears to be a significant market for "off-grid" generation supporting remote communities and remote mining operations, particularly in Western Australia, Queensland and the Northern Territory.

The NEM is the largest market in Australia, currently with over 53 GW of installed capacity. The installed capacity based on coal generation is about 23 GW and much of this is expected to retire over the next decade due to the age of these assets. Renewables penetration, both wind and solar, has grown strongly in this market, which is expected to continue. The federal Department of Industry, Science, Energy and Resources predicts an overall renewables penetration of 50 per cent in the NEM and 55 per cent in the WEM by 2030.

Our business today is solely in Western Australia, and focused on the large remote mining industry in that state. The primary exports from Western Australia are iron ore, nickel and gold. Iron ore exports from Western Australia are forecast to rise driven by large-scale producers ramping up production with new mines. The nickel industry is also experiencing an increase in demand to support both the steel and battery manufacturers. Remote mining operations are exploring options to add renewable generation to their existing and new sites in an effort to reduce the amount of gas and diesel required in these operations. Our SCE facilities in the Goldfields region have a number of projects in development under our newly extended contractual arrangement to support BHP achieve its decarbonization objectives. We expect this trend to continue and to create further opportunities for our business in Western Australia.

Seasonality and Cyclicity

Our business is cyclical, particularly in respect of the renewables generation held by TransAlta Renewables, due to: (a) the nature of business electricity and the limited storage capacity; and (b) the nature of wind, solar and run-of-river hydroelectric resources, which fluctuate based on both seasonal patterns and annual weather variation.

Typically, run-of-river hydroelectric facilities and solar facilities generate most of their electricity and revenues during the spring and summer months when the melting snow starts feeding the watersheds and the rivers, and the sun is at its highest peak. Inversely, wind speeds are historically greater during the cold winter months when the air density is at its peak. TransAlta Renewables' strategy of technological and geographical diversification reduces the Company's exposure to the variations of any one natural resource in any one region. TransAlta Renewables' operations are presently based mainly on power generation from wind, its financial results in any one quarter may not, however, be representative of all quarters. See the "Risk Factors" section of this AIF.

Regulatory Framework

Below is a description of the regulatory framework in the markets that are material to the Company.

Canadian Federal Government

In November 2016, the Canadian federal government announced that coal-fired generation would be phased out by 2030, following a similar commitment by the Alberta provincial government in November 2015. On Dec. 12, 2018, Environment and Climate Change Canada published two final regulations in the Canada Gazette, Part II to phase out coal-fired generation by 2030, as well as regulations for gas-fired electricity generation including provisions for the conversion of boiler units from coal-fired generation to natural gas-fired generation. Please refer to "*Environmental Risk Management - Ongoing and Recently Passed Environmental Legislation*" for more information.

Alberta

Alberta remains an energy-only market where generators make power supply offers that clear against power demand. The demand and supply dynamics determine market clearing prices.

Ontario

Ontario's electricity market is a hybrid market that includes a wholesale spot electricity market, as well as regulated prices for certain electricity consumers and long-term contracts for the purchase of power by the IESO from power producers. The IESO is the successor organization resulting from the merger of the former IESO and Ontario Power Authority in 2015. The Ontario Ministry of Energy supports the IESO in defining the electricity mix to be procured by the IESO. The IESO has the mandate to undertake long-term planning of the electric power system, procure the electricity generation in that plan and manage contracts for privately owned generation. The IESO is responsible for managing the Ontario wholesale market and for ensuring the reliability of the electricity system in Ontario. The electricity sector is regulated by the Ontario Energy Board.

The IESO is currently undertaking a market renewal consultation that includes proposed fundamental changes to the electricity market. These include modifying the energy market, adding resource adequacy procurements, including medium- and long-term requests for proposals (RFP) and improving market operations and reliability. The implementation of the energy market changes are planned for end of 2023.

The IESO has also actively engaged market participants on the design of its medium-term RFP and medium-term capacity contract. The first medium-term RFP is restricted to existing resource that will be uncontracted in mid-2027. The medium-term RFP is scheduled to take place in 2022 and will award contracts with terms of three to five years and a commencement date of May 1, 2026. Furthermore, the IESO intends to provide mechanisms to bridge resources between contracts (i.e., extending an existing contract to the start date of a medium-term contract or starting a medium-term contract early). The Sarnia and Melancthon 1 facilities will participate in the medium-term RFP.

Due to the fact that our units are almost entirely contracted, we expect market rule changes to have minimal, near-term impact on the Company.

British Columbia

British Columbia's electricity market is dominated by BC Hydro, a vertically integrated Crown corporation. The other provincial utility, FortisBC, has a small service territory in the interior of the province. Electricity is traded with other markets through BC Hydro's trading arm and wholly owned subsidiary, Powerex. All electricity utilities are regulated by the British Columbia Utilities Commission ("BCUC").

Under government direction in the late 1990s and early 2000s, BC Hydro established a private power market through several competitive calls for power from IPPs. In recent years, BC Hydro stopped its competitive power calls and contracting with IPPs and also suspended its smaller Standing Offer Program for small projects below 15 MW.

BC Hydro is delaying discussions related to recontracting assets until it has completed its new Integrated Resource Plan ("IRP"). In 2020, BC Hydro started its Clean Power 2040 consultation process to feed into the development of the IRP. The purpose of Clean Power 2040 is to develop a long-term electricity system view to meet the climate change and supply objectives related to provincial policy and legislation. BC Hydro filed its 2021 IRP to the BCUC on Dec. 21, 2021. The BCUC will hold a public review process on the IRP prior to providing a decision on the IRP.

Current Clean Power 2040 initial results indicate that BC Hydro continues to have a need to renew energy purchase agreements with existing IPPs, which could include TransAlta's Pingston Hydro project.

Québec

The Régie de l'énergie is Québec's regulatory authority with primary jurisdiction over the economic regulation of the electricity sector. Québec is served principally by Hydro-Québec, a government-owned entity with highly competitive hydroelectric resources. It has an almost exclusive right to distribute electricity throughout the Province of Québec. Most of Hydro-Québec's generation stations are located substantial distances from consumer centres. As a result, Québec's transmission system is one of the most extensive and comprehensive in North America, comprising more than 33,000 kilometres of lines. In all cases, an agreement with Hydro-Québec on the price of the electricity produced is required before a project can obtain governmental approval. Overall, Hydro-Québec's structure makes new projects difficult but existing projects, such as Le Nordais, with contracts in place, are generally unaffected and are able to recontract.

New Brunswick

The *Electricity Act* (New Brunswick) is the legislation that sets out the framework and rules of law for how the electricity sector is managed in New Brunswick. The current *Electricity Act* (New Brunswick) was enacted in 2013. The *Electricity Act* (New Brunswick) also includes government policy directives that guide utility planning, including ensuring the safe, secure and equitable access to electricity at least cost of service. The *Electricity Act* (New Brunswick) gives New Brunswick Power Corporation ("NB Power") the authority to sell electricity within the province and to manage and operate NB Power's resources and facilities for the supply, transmission and distribution of electricity within New Brunswick. The *Electricity Act* (New Brunswick) also makes NB Power responsible for promoting, developing and delivering energy efficiency, energy conservation, and demand side management programs in New Brunswick.

In 2014, the Government of New Brunswick committed to develop more renewable energy in New Brunswick. The *Electricity from Renewable Resources Regulation - Electricity Act* guides the development of renewable electricity resources in New Brunswick. The regulation requires NB Power to supply 40 per cent of its in-province electricity sales with renewable energy by 2020, which was achieved in both 2019 and 2020.

US Wholesale Power Market

The *Federal Power Act* gives the Federal Energy Regulatory Commission ("FERC") rate-making jurisdiction over public utilities engaged in wholesale sales of electricity and the transmission of electricity in interstate commerce. FERC oversees the market structure for all integrated market rules and wholesale sales from generators. The *Federal Power Act* also provides FERC with the authority to certify and oversee an electric reliability organization that promulgates and enforces mandatory reliability standards applicable to all users, owners and operators of the bulk-power system. FERC has certified the North American Electric Reliability Corporation ("NERC") as the electric reliability organization. NERC has promulgated mandatory reliability standards and, in conjunction with the regional reliability organizations that operate under FERC's and NERC's authority and oversight, enforces those mandatory reliability standards.

Minnesota (MISO)

The Lakeswind facility in Minnesota is connected to the Midwest Independent System Operator ("MISO") and falls under FERC jurisdiction. FERC-approved MISO tariffs dictate market and operational requirements for facilities. MISO has both an energy market and a voluntary capacity market. Under the long-term contract, all power is delivered at the plant gate. As a result, market changes are not expected to have a material impact on revenues.

Massachusetts (NE-ISO)

The Mass Solar facility is connected to the distribution grid so its generated electricity flows directly to the utility and is not offered into the integrated market. All revenues associated with this project flow from the State's net metering and Renewable Energy Portfolio Standard programs. As a result, market changes are not expected to have a material impact on net metering revenues.

New Hampshire (NE-ISO)

The Antrim facility in New Hampshire is connected to the New England Independent System Operator ("NE-ISO") and falls under FERC jurisdiction. FERC-approved NE-ISO tariffs dictate market and operational requirements for facilities. The NE-ISO has both an energy and a mandatory capacity market. The Antrim facility's electricity is offered into the market and transferred to the buyers. The Antrim facility has a long-term capacity supply obligation so it is not impacted by near term changes to the capacity market auction process. The Antrim facility and most other intermittent wind projects must take part in the NE-ISO's Do Not Exceed Dispatch. As a result, market changes are not expected to have a material impact on revenues.

North Carolina

The North Carolina Solar facility is a portfolio of 20 solar generation sites that are connected to Duke Energy's distribution system and are not directly connected to the PJM system. The assets are qualified facilities under the *Public Utilities Regulatory Policy Act* that are fully contracted to Duke Energy as the buyer. Duke Energy is regulated by the North Carolina Utilities Commission, which sets regulated rates for utilities, oversees resource planning and monitors resource contracting. Given that the North Carolina Solar facility is fully contracted to Duke Energy under a long-term PPA. As a result, market changes are not expected to have any material impact on revenues during the contract term.

Oklahoma (SPP)

The White Rock Wind Projects are currently in development and are expected to be energized in the second half of 2023. They will be connected to the Southwest Power Pool ("SPP") which falls under FERC jurisdiction. FERC-approved SPP tariffs dictate market and operational requirements for facilities. SPP operates a wholesale energy market and an energy imbalance market. The White Rock Wind Projects's attributes, including energy, capacity, and environmental credits, will be transferred to the buyer under a long-term contract. As a result, market changes are not expected to have a material impact on revenues during the contract term.

Pennsylvania (PJM)

The Big Level facility in Pennsylvania is connected to the PJM ISO and falls under FERC jurisdiction. FERC-approved PJM tariffs dictate market and operational requirements for facilities. PJM has both an energy and a mandatory participation capacity market. The Big Level facility's attributes, including energy, capacity, and environmental credits, have been transferred to the buyer. As a result, market changes are not expected to have a material impact on revenues during the contract term.

Washington

The Washington Transportation and Utilities Commission has the power to regulate and supervise every "public utility," which includes investor-owned electric utilities. For regulated electric utilities, the commission approves regulated rates, reviews integrated resource plans, approves mergers and acquisitions and grants certificates of public convenience and necessity for large facilities (i.e., power plants and transmission lines). The Centralia facility and the Skookumchuck wind facility are not regulated by the Commission as they only sell wholesale electricity and do not sell retail electricity in the state. Only FERC and NERC requirements apply to the facility. As a result, the Company does not expect any material impacts on revenue streams from any commission decisions.

Wyoming

The Wyoming Public Service Commission has the power to regulate and supervise every "public utility," which includes the four investor-owned electric utilities in Wyoming, as well as certain natural gas, electric, telecommunications, water and pipeline services. For regulated electric utilities, the Wyoming Public Service Commission approves regulated rates, reviews integrated resource plans, approves mergers and acquisitions and grants certificates of public convenience and necessity for large facilities (i.e., power plants and transmission lines). The Wyoming wind facility is not regulated by the Wyoming Public Service Commission as it only sells wholesale electricity and does not sell retail electricity in the state. Only FERC and NERC requirements apply to the facility. As a result, the Company does not expect any material impact on revenue streams from any Wyoming Public Service Commission decisions.

Australia

Australia has two separate major electricity markets: the NEM encompassing all the major population centres on the Eastern seaboard; and the WEM covering the southwest of Western Australia including its capital city, Perth. A number of smaller, standalone electricity grids serve regional population centres including the North West Interconnected System ("NWIS") in the Pilbara region of Western Australia and the Darwin-Katherine System in the Northern Territory.

The Australian Energy Market Operator is the market operator for both the WEM and the NEM. The two markets are completely independent of each other having different market rules and no physical interconnection between them. The WEM includes both a market for generation capacity and a gross pool to trade energy with a single reference node for wholesale prices. The NEM is a pure energy-only market with five regional reference nodes for wholesale prices corresponding to each of the participating states of Queensland, New South Wales, Victoria, Tasmania and South Australia.

The Public Utilities Office of Western Australia ("PUO"), in its capacity as advisor to the Minister for Energy, is currently working with Australian Energy Market Operator and the wider electricity industry to implement further reforms to the WEM including introducing constrained network access and required consequential amendments to the wholesale market rules to allow for security constrained dispatch. It is anticipated that the reforms will be implemented on or around Oct. 1, 2022.

The PUO is also working with participants in the NWIS to introduce some elements of a more formal electricity market, including providing third-party access to the Horizon Power-owned part of the NWIS and providing centralized coordination of dispatch and ancillary services.

Competitive Strengths

We believe that we are well positioned to achieve our business strategy due to our competitive strengths, which include those noted below.

Operational Excellence

We have strong operational excellence built up over our 110-year history with extensive experience in wind, hydro, solar, storage and gas that is founded on one of Canada's largest wind fleet and Alberta's largest hydro fleet.

We continually benchmark ourselves against our previous year performance in order to drive operating efficiencies year over year, while also maintaining strong levels of generation performance. We have implemented a program to drive incremental value from our fleet by developing initiatives to improve generating equipment efficiencies, refining processes and procedures, and optimizing cost structures. We believe the continued maturity of this program will continue to drive further value in the operations of our facilities.

Strong Financial Position

Our strong cash flow results provide a pool of funds to be allocated to our funding priorities. Higher operating cash flow at the Company, combined with the structural reduction in sustaining capital, frees up additional capital capacity to allocate to growth, dividends and share buybacks.

Through the use of long-term contracts, approximately 50 per cent of our capacity is contracted in 2022 and 2023. The net revenue received under these contractual arrangements helps to minimize short-term revenue fluctuations due to the variable price of electricity. The Company also regularly hedges portions of its uncontracted merchant positions to further stabilize cash flows from market volatility.

Highly Credible Developer

We have internal development expertise with teams that are able to manage every aspect and every stage of new project development from resource assessment to site control, permitting, contracting, engineering, construction and project management.

Customers are increasingly looking not just to pricing for the procurement of clean electricity but also to a developer's credibility.

Portfolio Diversity

Our portfolio mix consists of wind, hydro, solar, energy storage, and natural gas. In 2020, we successfully commissioned Alberta's first utility-scale battery storage project that is powered by the Summerview 2 wind facility.

We continue to use coal as a source of fuel in a single Centralia facility unit until it is retired at the end of 2025. We will continue to optimize this facility until we fully complete the transition off coal by the end of 2025.

We believe that we can reduce the potential impact of external events that affect one fuel source or one geographic region on our performance given the location of our operations across Canada, the US and Australia, as well as our diverse fuel mix.

Management Team and Employee Experience

Our management team has substantial industry, international, investment and market experience. The experience and acumen of our employees further enhances our capital value creation. Our business has been operating for more than 110 years, and many of our employees have been with us for more than 20 years.

Optimization and Trading Expertise

We believe that our Energy Marketing segment has enhanced returns of our existing generation base and has allowed us to obtain more favourable pricing for uncommitted electricity, secure fuel supply on a cost-effective basis and fulfil electricity delivery obligations in the event of an outage.

Environmental, Social and Governance Strategy

We have a long history of adopting leading sustainability practices, including over 25 years of sustainability reporting and voluntarily integrating our sustainability results into our annual financial performance. We have been issuing an integrated annual report since 2015. We test our practices and our reporting against standards set by CDP (formerly the Carbon Disclosure Project) and the TCFD. TransAlta has been operating hydroelectric facilities for more than 110 years and was an early adopter of wind power generation, acquiring its first wind assets in 2002. Today, we are one of the leading producers of wind power in Canada. Through our ongoing energy transition efforts, we are on track to reduce our total GHG emissions by approximately 75 per cent from 2015 levels by 2026.

Environmental Risk Management

We are subject to federal, provincial, state and local environmental laws, regulations and guidelines concerning the generation and transmission of electrical and thermal energy. We are committed to complying with legislative and regulatory requirements and to minimizing the environmental impact of our operations. We work with governments and the public to develop appropriate frameworks to protect the environment as well as the communities in which we operate to promote sustainable development.

Ongoing and Recently Passed Environmental Legislation

Changes in current environmental legislation do have an impact on our operations and business. See the "Risk Factors" section of this AIF.

Climate-Related Financial Disclosure

TransAlta has prepared an assessment of climate-related risks and opportunities to conform with the recommendations of TCFD describing our climate change strategy, governance, risk management approach, GHG metrics and targets. In 2021, we conducted our first climate-related scenario analysis to strengthen decision-making and climate-related reporting. Qualitative findings are included in our annual management's discussion and analysis for the year-ended Dec. 31, 2021.

Canadian Federal Government

Federal Carbon Pricing on GHG

On June 21, 2018, the Canadian federal *Greenhouse Gas Pollution Pricing Act* ("GGPPA") came into force. Under the GGPPA, the Canadian federal government implemented a national price on GHG emissions. The price began at \$20 per tonne of CO₂e emissions in 2019, and rose by \$10 per year until reaching \$50 per tonne in 2022. The federal government has announced the price will rise by \$15 per tonne of CO₂e emissions per year starting in 2023 until it reaches \$170 in 2030.

On Jan. 1, 2019, the GGPPA's backstop mechanisms came into force in provinces and territories that did not have an independent carbon pricing program or where the existing program was not deemed equivalent to the federal system. The backstop mechanism has two components: the federal pollution pricing fuel charge ("carbon tax") and the regulation for large emitters ("OBPS"). The carbon tax sets a carbon price per tonne of GHG emissions related to transportation fuels, heating fuels and other small emission sources. Ontario was the only jurisdiction where TransAlta operates assets covered by the OBPS; however, as of Jan. 1, 2022, Ontario transitioned from the federal OBPS to the Ontario Emissions Performance Standards program. Alberta and Ontario are subject to the federal consumer carbon tax.

Other jurisdictions that were compliant with the GGPPA did not have the backstop mechanism imposed in 2020. To this point, these jurisdictions have filed and had their carbon pricing programs approved annually by the federal government. The federal government has announced its intent to approve provincial programs in 2023 for the full 2023 to 2030 period. Over future annual compliance periods, if parts or all of a province's GHG regulations fall out of compliance with the GGPPA, the federal government will impose its backstop mechanisms.

On Dec. 11, 2020, the Government of Canada released its "A Healthy Environment and a Healthy Economy" climate plan that outlines how the federal government intends to use policies, regulations, and funding to achieve Canada's Paris Agreement emissions reduction target. The three major aspects of the plan include increased carbon prices and obligations, increased funding for clean technology and the implementation of the Clean Fuel Regulation ("CFR"). The government stated that it will consult with provinces and industry regarding many elements of the plan so significant uncertainty remains regarding the final form of the regulations and other initiatives.

The following are key proposed elements of the federal plan:

- the carbon price for the carbon tax and the larger emitters program will rise \$15 per tonne of CO₂e per year from 2023 until reaching \$170 per tonne of CO₂e by 2030;
- carbon obligations will rise as the benchmark under large emitter regulations tighten;
- develop a Clean Electricity Standard to achieve a net zero grid in Canada;
- over \$10 billion of funding will be available for everything from electric vehicles and clean energy development, to battery storage and improved grid technology;
- the CFR will apply to liquid fuels but not to gaseous and solid fuels; and
- develop a GHG offset credit system for the CFR and the OBPS.

In April 2021, the Government of Canada announced a revised GHG emissions target of 40 per cent to 45 per cent below 2005 levels by 2030. During the 2021 election campaign, the government committed to achieving a net zero grid by 2035 and subsequently indicated that its proposed Clean Electricity Standard would be designed to achieve this goal.

In December 2021, the government extended the timeline to release an Emissions Reduction Plan, as required by the new *Canadian Net-Zero Emissions Accountability Act*, to March 2022. This plan is expected to provide more detail regarding how the government intends to reach Canada's 2030 emissions targets.

TransAlta has made a submission regarding the federal Emissions Reduction Plan and will continue to engage with governments to mitigate risks and identify opportunities within the new federal plan.

Gas Performance Standards Regulation

On Dec. 18, 2018, the federal government published the *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity*. Under the regulations, new and significantly modified natural gas-fired electricity facilities with a capacity greater than 150 MW must meet a standard of 0.420 tonnes of CO₂e/MWh to operate. For units with a capacity between 25 MW and 150 MW, their standard was set at 0.550 tCO₂e/MWh. For units of 25 MW or less, there is no standard.

Under the regulations, conversion to gas will also eventually have to meet a standard of 0.420 tonnes of CO₂e/MWh. If the first-year performance test after conversion meets certain emission standards, it will not have to meet the 0.420 tonnes of CO₂e/MWh standard for a prescribed number of additional years past the end of its useful life. These standards apply to TransAlta's coal to gas facilities.

Alberta

Large Emitter Greenhouse Gas Regulations

On Jan. 1, 2020, the Government of Alberta replaced the previous Carbon Competitiveness Incentive Regulation ("CCIR") with TIER. For the electricity sector, there were negligible changes between CCIR and TIER with renewable facilities continuing to receive crediting. The carbon price for TIER in 2022 has been set at \$50 per tonne of CO₂e, aligned with the GGPPA requirements. The performance standard benchmark remained at 0.370 tonnes of CO₂e/MWh. A review of TIER is expected in 2022.

Facilities with emissions above the set benchmark comply with TIER by: (a) paying into the TIER Fund (a government-controlled fund that invests in emissions reduction in the province) at the current carbon price; (b) making reductions at their facility; (c) remitting emission performance credits from other facilities; or (d) remitting emission offset credits.

As required by the GGPPA, the Alberta government submits annual reports with TIER program details to the federal government. The federal government reviewed TIER and found it compliant with the GGPPA for 2022.

The Company will continue to receive offsets and EPC for its renewable facilities under TIER ensuring expected revenues are realized.

Bill 86, the *Electricity Statutes Amendment Act* ("ESAA")

The ESAA was introduced on Nov 17, 2021, and passed its second reading on Nov. 24, 2021. Bill 86 plans to address the changing ways that electricity producers and consumers interact with and use Alberta's power grid to encourage adoption and investment in emerging energy systems and technologies. Bill 86 passed first and second readings on Nov. 17. and 24, 2021, respectively, but did not get proposed for final reading or proclamation. The Government is expected to re-introduce Bill 86 with a different name in the spring session for a final reading when the accompanying regulations are drafted. It is expected to be consistent with the originally proposed ESAA, although could include changes based on industry feedback.

If passed, the ESAA will: (a) allow the integration of energy storage into Alberta's interconnected electricity system in both the competitive electricity market and the transmission and distribution system; (b) allow unlimited self-supply with export while ensuring that transmission system costs are balanced among all system participants; modernize Alberta's electric distribution system to ensure cost-effectiveness; and (c) include a requirement for distribution owners to provide long-term planning process.

TransAlta will continue to participate in the regulatory development engagements to ensure that our strategic interest and positions, especially with regards to storage, are well represented.

British Columbia

Beginning April 1, 2018, the British Columbia government increased its carbon tax price to \$35 per tonne of CO₂e and committed to raise the price \$5 per year until it reaches \$50 per tonne. The carbon tax will increase to \$50 per tonne of CO₂e in April 2022. The tax has a negligible cost impact for the Company as the tax applies primarily to our transportation fuel use, which is negligible in B.C.

Ontario

Large Emitter Greenhouse Gas Regulations

On July 4, 2019, the Government of Ontario released its regulations for the provincial Emissions Performance Standard ("EPS") carbon pricing system. On Sept. 21, 2020, the federal government accepted the Ontario government's EPS as meeting the requirements of the GGPPA. In Dec. 2020, the Ontario government published amendments to align the EPS with the GGPPA requirements. As of Jan. 1, 2022, the EPS system applies in Ontario and the federal OBPS no longer applies to covered emitters.

The EPS-proposed stand-alone facility electricity performance standard differs from the OBPS performance standard for cogeneration facilities. This may place cogeneration electricity at a carbon pricing disadvantage relative to stand-alone electricity facilities as the efficiency benefits of cogeneration are not fully realized. However, as carbon costs are passed-through under current contracts, risks related to changes under the Ontario EPS are reduced. Notwithstanding, TransAlta is working to understand the interpretation of the policy in terms of the applicable quantification methodologies and any potential implications to our thermal asset contracts in Ontario.

Massachusetts

The Solar Renewable Electricity Credit I ("SREC I") program carved out from Massachusetts' Renewable Portfolio Standard (RPS) an initial quantity of 400 MW from small solar facilities of 10 MW or less. The initial SREC I program size was expanded and then replaced by a lower-valued SREC II program. In 2018, the solar incentive program evolved into the current Solar Massachusetts Renewable Target program that further reduced the incentive levels.

The initial SREC I program's volume target was achieved, and qualified projects under SREC I continue to generate SREC I credits for their first 10 years following their commercial operations date. SREC I facilities then generate Class 1 RECs under the Massachusetts RPS for the remainder of their operational life.

Under Massachusetts' net metering program, qualified facilities connect with the local utility and generate net metering credits. Net metering credits offset the delivery, supply and customer charges and can be sold to customers from remote or on-site qualifying facilities. In 2016, the net metering program was updated to reduce the value of the net metering credits by reducing the offset to only energy costs. New projects are impacted once the net metering program volume reaches 1,600 MW. Existing facilities were grandfathered and continue to receive the full, original cost offset treatment for a period of 25 years from initial commercial operations date.

Le Nordais receives value from the sale of RECs into the New England RPS markets. Massachusetts has proposed a lower compliance cost ceiling on its RPS standard that would effectively cap the value of RECs. This could have a negative impact on Le Nordais' REC sales price. The change in regulation, published on July 9, 2021, sets the alternative compliance payment rate for the Massachusetts RPS Class I Minimum Standard at \$60 per MWh in compliance year 2021, \$50 per MWh in compliance year 2022 and \$40 per MWh in compliance year 2023. The RECs are currently trading at \$38/MWh below the 2022 ceiling price. Despite these changes to the Massachusetts ceiling price, the Le Nordais contract is hedged out through 2023 so we are insulated from any changes to the decreasing ceiling price. The Company will continue to market these RECs at the best available market price in the New England region.

Minnesota

Minnesota has a Renewable Portfolio Standard ("RPS") and allows Michigan RECs to be used by utilities and non-utilities to meet the requirement. The RECs generated by the Lakeswind wind facility have been sold to the customer as part of their long-term contract.

North Carolina

The North Carolina market has a state Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") that requires utilities in North Carolina to meet up to 12.5% of their energy needs through renewable energy resources or energy efficiency. Under our PPAs with Duke Energy, Duke Energy receives the renewable electricity, capacity and environmental attributes from each facility. To date, the North Carolina REPS have had no material impact on our facility revenues.

New Hampshire

The New Hampshire market has an RPS, is part of the New England REC market and is also a partner in the Regional Greenhouse Gas Initiative – a carbon cap and trade program. The Antrim wind facility has long-term contracts in place for its energy and environmental attributes plus long-term capacity commitments. As a result, state and regional environmental and market regulations and policy will have an immaterial impact on revenues.

Pennsylvania

Pennsylvania has an RPS and is linked to the New England REC markets. In December 2019, FERC released an order directing PJM, the electric grid operator covering 13 states plus the District of Columbia, to significantly expand its minimum offer price rule ("MOPR") to mitigate the impacts of state-subsidized resources on the capacity market. Under these new rules, PJM must establish resource-specific MOPRs for new and existing resources that receive (or are eligible to receive) state subsidies, including renewable energy credits used to promote renewable energy and zero emission credit. The Big Level wind facility is exempt from the MOPR rule because its interconnection construction agreement was filed prior to Dec. 19, 2019.

Washington

In 2010, the Washington Governor's office and Department of Ecology negotiated agreements with TransAlta related to the operation of Centralia's two coal-powered electricity generating units. TransAlta agreed to retire its two Centralia coal units: one in 2020 and the other in 2025. This agreement is formally part of the state's climate change program. We currently believe that there will be no additional GHG regulatory burden on Centralia given these commitments. The related TransAlta Energy Transition Bill was signed into law in 2011 and provides a framework to transition from coal to other forms of generation in the State of Washington. If the state implements a carbon pricing regulation, the Transition Bill requires the state to exempt Centralia from any related costs.

On May 17, 2021, Governor Inslee signed Washington State's cap and trade law. This law will cover entities that emit over 25,000 tCO₂e per year. It creates a "cap-and-invest" program, which sets a statewide cap on greenhouse gas emissions and then auctions or allocates emissions allowances. The cap-and-invest trading program has three mechanisms for participation: (a) Covered entities – GHG reporters that meet the covered emission thresholds; (b) Opt-in entities – GHG emitters that don't meet the covered emission thresholds, but choose to participate; and (c) General market participants – anyone else that wants to hold allowances. TransAlta's Centralia facility will be exempt from the cap-and-invest program until it closes in 2025, as per agreement with the State of Washington. TransAlta is seeking to understand how the new law will impact energy trading in the market.

Wyoming

Wyoming has no RPS or carbon-related market. No recent actions have been taken to reconsider a wind tax in the state. The Wyoming wind facility has long-term contracts for its power and environmental attributes, and the Company expects state environmental and market regulations, and policy will not have a material impact on revenues.

Australia

In October 2021, the Australian government announced a target to reach net zero emissions by 2050. The announcement was made at the UN Climate Change Conference in Glasgow ("COP26") and is in addition to the longer-standing target to cut emissions by 26 per cent to 28 per cent below 2005 levels by 2030. With the announcement, the Commonwealth Government is now fully aligned with all Australian states and territories, each a target of net zero emissions by or before 2050, although apart from the Australian Capital Territory and the State of Victoria, none of the targets are legislated.

The Australian government's plan to achieve the necessary reductions is focused on technology development and cost reduction, enabling deployment at scale through incentives and infrastructure development. The plan also focuses on opportunities in new markets such as clean hydrogen exports as well as expanding markets for minerals and metals required for low emissions economies such as copper, nickel and lithium. The Australian government provides various targeted funding in this area, including via the Australian Renewable Energy Agency, which administers a funding application process for projects seeking to develop or commercialize technologies related to emissions reductions. For businesses, the main legislated compliance mechanisms include the Renewable Energy Target ("RET") and the safeguard mechanism.

The RET has been in place since 2001 to achieve legislated targets of renewable energy in Australia. The current target of 33,000GWh/year of renewable energy production has applied from 2020 and will continue until 2030 when the scheme is due to expire. Under the scheme, renewable energy providers create tradable certificates (one for every MWh) with an obligation on electricity retailers to purchase certificates in proportion to their customers' load requirements.

On Dec. 13, 2014, the Australian government enacted legislation to implement the Emissions Reduction Fund ("ERF"). The ERF's safeguard mechanism commenced on July 1, 2016, and is designed to ensure emissions reductions purchased by the Australian government through the ERF are not displaced by significant increases in emissions elsewhere in the economy. The ERF and its safeguard mechanism provide incentives to reduce emissions across the Australian economy.

The ERF is not expected to have a material impact on our Australian assets. In Australia, electricity has a single sectoral baseline applied to all electricity generators' emissions for units connected to one of Australia's five main electricity grids. The electricity sector baseline has been set at 198 million tonnes of CO₂e per year. If the baseline is exceeded, then all large emitter generation facilities will need to comply with individual facility baselines. The electricity sector is not expected to exceed the sectoral emission target as no new coal generation is being built and older coal facilities are being retired. It is expected that the Company's gas facilities will not be subject to carbon costs under current regulations, unless regulatory changes are enacted.

TransAlta Activities

Reducing the environmental impact of our activities benefits not only our operations and financial results, but also the communities in which we operate. We expect that increased scrutiny will continue to be placed on environmental emissions and compliance. We therefore take a proactive approach to minimizing environment and safety risks to our results. Our Board provides oversight to our environmental management programs and emission reduction initiatives in order to ensure continued compliance with environmental regulations.

Our environmental management programs include the elements summarized below:

Environmental Management Systems

At TransAlta, we operate our facilities in line with best practices related to environmental management standards. Our environmental management system ("EMS") processes are verified annually to ensure we continuously improve our environmental performance. Our knowledge of EMS has matured since when we aligned our processes in accordance with the internationally recognized ISO 14001 standard. Currently, the most material natural or environmental capital impacts to our business are GHG emissions, air emissions (i.e., pollutants, metals) and energy use. Other material impacts that we manage and track performance on using our EMS practices include land use, water use and waste management.

Renewable Power

We continue to invest in and build renewable power resources. The Company completed the construction of its 206 MW Windrise wind project in the third quarter of 2021 and commercial operation was achieved on Nov. 10, 2021. The Company also acquired the 122 MW North Carolina Solar facility in November 2021. On Dec. 22, 2021, we entered into two long-term PPAs for the offtake of 100 per cent of the generation from our 300 MW White Rock East and White Rock West wind projects located in Oklahoma.

We believe that a larger renewable portfolio provides increased flexibility in generation and creates incremental environmental value through environmental attributes (i.e., RECs and emission offsets). In addition, we have developed policies and procedures to comply with regulatory guidance and to lessen any environmental disruption caused by our renewable power resources, which includes monitoring noise and the avian impacts at our wind generation facilities

Environmental Controls and Efficiency

We continue to make operational improvements and investments to our existing generating facilities to reduce the environmental impact of generating electricity.

The most significant strides in reducing the Company's environmental footprint are related to our coal transition. We successfully completed the transition of our coal units in Alberta to natural gas at the end of 2021. The Keephills Unit 3 conversion to natural gas began during the third quarter of 2021 and was completed in December 2021. Earlier in 2021, Keephills Unit 2, Sundance Unit 6 and our non-operated Sheerness Unit 1 completed their conversions to natural gas, resulting in all these units now running solely on natural gas. We also retired Sundance 5 and suspended the repowering project. On Dec. 31, 2021, Keephills Unit 1 was retired and on April 1, 2022, Sundance Unit 4 will be retired. Effective Jan. 1, 2022, we discontinued the firing of coal in Canada.

The combination of all these actions will significantly reduce environmental impacts from air emissions, GHG emissions, water usage and land disturbance, and reduce energy usage at the respective facilities.

Offsets Portfolio

TransAlta maintains a GHG emissions offset portfolio with a variety of instruments that can be used for compliance purposes or otherwise banked or sold. We continue to examine additional emission offset opportunities that also allow us to meet emission targets at a competitive cost. We anticipate that any investments in offsets will meet certification criteria in the market in which they are to be used.

Environmental Regulations

Recent or future changes to environmental laws or regulations may materially adversely affect us. See the "Risk Factors" section of this AIF and see "Governance and Risk Management" section of our annual management's discussion and analysis for the year-ended Dec. 31, 2021. Many of our activities and properties are subject to environmental requirements, as well as changes in our liabilities and obligations under these requirements, which may have a material adverse effect upon our consolidated financial results, operations or performance.

Risk Factors

Readers should consider carefully the risk factors set forth below as well as the other information contained and incorporated by reference in this AIF. For a further discussion of risk factors affecting TransAlta, see "Governance and Risk Management" section of our annual management's discussion and analysis for the year-ended Dec. 31, 2021, which is incorporated by reference herein.

A reference herein to a material adverse effect on the Company means such an effect on the Company or its business, financial condition, results of operations or cash flows, as the context requires.

The operation and maintenance of our facilities involve risks that may materially and adversely affect our business.

The operation, maintenance, refurbishment, construction and expansion of power generation facilities involve risks, including breakdown or failure of equipment or processes, fuel interruption and performance below expected levels of output or efficiency. Some of our generation facilities, particularly in Alberta, were constructed many years ago and may require significant capital expenditures to maintain peak efficiency or operations. There can be no assurance that our maintenance program will be able to detect potential failures in our facilities before they occur or eliminate all adverse consequences in the event of failure. In addition, weather-related interference, work stoppages and any other unforeseen problems may disrupt the operation and maintenance of our facilities and may materially adversely affect our business.

We have entered into ongoing maintenance and service agreements with the manufacturers of certain critical equipment. If a manufacturer is unable or unwilling to provide satisfactory maintenance or warranty support, we may have to enter into alternative arrangements with other providers if they cannot perform the maintenance themselves. These arrangements could be more expensive to us than our current arrangements and this increased expense could have a material adverse effect on our business. If we are unable to enter into satisfactory alternative arrangements, our inability to access technical expertise or parts could have a material adverse effect on us. Due to COVID-19, it is possible that the potential cross-border travel and transportation restrictions could impact the timely availability of services, parts and equipment.

While we maintain an inventory of, or otherwise make arrangements to obtain, spare parts to replace critical equipment and maintain insurance for property damage and business interruption to protect against certain operating risks, these protections may not be adequate to cover lost revenues or increased expenses and penalties that could result if we were unable to operate our generation facilities at a level necessary to comply with sales contracts.

We may be subject to the risk that it is necessary to operate a facility at a capacity level beyond that which we have contracted for power. In such circumstances, the costs to produce the power being sold may exceed the revenues derived therefrom.

Unexpected changes in the cost of maintenance or in the cost and durability of components for the Company's facilities may adversely affect its results of operations.

Unexpected increases in the Company's cost structure that are beyond the control of the Company could materially adversely impact its financial performance. Examples of such costs include, but are not limited to, unexpected increases in the cost of procuring materials and services required for maintenance activities, and unexpected replacement or repair costs associated with equipment underperformance or lower-than-anticipated durability.

Changes in the price of electricity may materially adversely affect our business.

A significant portion of our revenues are tied, either directly or indirectly, to the market price for electricity in the markets in which we operate, and in particular in the Alberta spot market. Market electricity prices are impacted by a number of factors, including the strength of the economy, the available transmission capacity, the price of fuel that is used to generate electricity (and, accordingly, certain of the factors that affect the price of fuel described below), the management of generation and the amount of excess generating capacity relative to load in a particular market, the cost of controlling emissions of pollution and cost of carbon, the structure of the particular market, increased adoption of energy-efficiency and conservation initiatives, and weather conditions that impact electrical load. As a result, we cannot precisely predict future electricity prices and electricity price volatility (particularly lower Alberta electricity prices) could have a material and adverse effect on us.

Equipment failure may cause us to suffer a material adverse effect.

There is a risk of equipment failure material to our operations due to wear and tear, latent defect, design error or operator error, among other things, which could have a material adverse effect on our business. Although our generation facilities have generally operated in accordance with expectations, there can be no assurance that they will continue to do so. Our facilities are exposed to operational risks such as failures due to cyclic, thermal and corrosion damage in boilers, generators and turbines, and other issues that can lead to outages and increased production risk. An extended outage could have a material adverse effect on our business, financial condition or cash flow from operations.

In particular, the replacement of all 50 turbine foundations at the Kent Hills 1 and 2 facilities could present material risks to the Company if the Company's subsidiary, Kent Hills Wind LP, is found to be in default of its PPAs with New Brunswick Power Corporation or an event of default is deemed to have arisen under the trust indenture governing the KH Bonds, which could allow the holders of such bonds to direct the KH Trustee to declare the principal and interest on the KH Bonds, together with any make-whole amount due thereunder, to be immediately due and payable and to direct the KH Trustee to exercise rights against certain collateral.

There can be no assurance that any applicable insurance coverage would be adequate to protect our business from material adverse effect. In addition, there can be no assurance that we will be able to restore equipment or assets that have reached the end of their useful life.

The impact of COVID-19 could have an adverse impact on the Company's construction projects and the operation and maintenance of our assets.

The impact of COVID-19 and the associated general economic downturn on the Company will largely depend on the overall severity and duration of such events, which cannot currently be predicted, and that present risks including, but not limited to: more restrictive directives of government and public health authorities; reduced labour availability impacting our ability to continue to staff the Company's operations and facilities; impacts on the Company's ability to realize its growth goals; decreases in short-term and/or long-term electricity demand and lower power pricing; increased costs resulting from the Company's efforts to mitigate the impact of COVID-19; deterioration of worldwide credit and financial markets that could limit the Company's ability to obtain external financing to fund its operations and growth expenditures; a higher rate of losses on accounts receivables due to credit defaults; disruptions to the Company's supply chain; impairments and/or writedowns of assets; and adverse impacts on the Company's information technology systems and the Company's internal control systems as a result of the need to increase remote work arrangements, including increased cybersecurity threats.

Responses to the COVID-19 pandemic throughout North America have at times driven a reduction in demand for electricity as municipal, provincial and state authorities implemented social distancing policies, and stay-at-home and/or "shelter-in-place" directives. In turn, this put downward pressure on forward electricity prices. There is currently no certainty as to when the pandemic will be brought fully under control, but public expectations generally indicate that these impacts could continue well into 2022.

Our facilities, construction projects and operations are exposed to effects of natural disasters, public health crises and other catastrophic events beyond our control and such events could result in a material adverse effect.

Our facilities, construction projects and operations are exposed to potential interruption and damage, partial or full loss, resulting from environmental disasters (i.e., floods, high winds, fires, ice storms, earthquakes and public health crises, such as pandemics and epidemics), other seismic activity, equipment failures and the like. Climate change can increase the frequency and severity of these extreme weather events. There can be no assurance that in the event of an earthquake, hurricane, tornado, tsunami, typhoon, terrorist attack, act of war or other natural, man-made or technical catastrophe, all or some parts of our generation facilities and infrastructure systems will not be disrupted. The occurrence of a significant event that disrupts the ability of our power generation assets to produce or sell power for an extended period, including events that preclude existing customers under PPAs from purchasing electricity, could have a material negative impact on our business. Our facilities, construction projects and operations could be exposed to effects of severe weather conditions, natural and man-made disasters and potentially other catastrophic events. The occurrence of such an event may not release us from performing our obligations pursuant to PPAs or other agreements with third parties. In addition, many of our generation facilities are located in remote areas which makes access for repair of damage difficult. Catastrophic events, including public health crises, could result in volatility and disruption to global supply chains, disruption to global financial markets, trade and market sentiment, risks to employee health and safety, a slowdown or temporary suspension of operations in impacted locations, postponements in the initiation and/or completion of the Company's development or construction projects, and delays in the completion of services, any of which may result in the Company incurring penalties under contracts, additional costs or the cancellation of contracts.

Risks relating to TransAlta's development and growth projects and acquisitions may materially and adversely affect us.

Development and growth projects and acquisitions that we undertake may be subject to execution and capital cost risks, including, but not limited to, risks relating to regulatory approvals, third-party opposition, cost escalations, construction delays, shortages of raw materials, supply chain constraints, or skilled labour and capital constraints. The occurrences of these risks could have a material and adverse impact on us, our financial condition, results of operations and cash flows.

Expansion of our business through development projects and acquisitions may place increased demands on our management, operating systems, internal controls and financial and physical resources. In addition, the process of integrating acquired businesses or development projects may involve unforeseen difficulties. Failure to successfully manage or integrate any acquired businesses or development projects could have a material adverse impact on us, our financial condition, results of operations and cash flows. Further, we cannot make assurances that we will be successful in integrating any acquisition or that the commercial opportunities or operational synergies of any acquisition will be realized as expected.

We may pursue acquisitions in new markets that are subject to regulation by various foreign governments and regulatory authorities and to the application of foreign laws. Such foreign laws or regulations may not provide for the same type of legal certainty and rights, in connection with our contractual relationships in such countries, as are afforded to us currently, which may adversely affect our ability to receive revenues or enforce our rights in connection with any such foreign operations. In addition, the laws and regulations of some countries may limit our ability to hold a majority interest in some of the projects that we may acquire, thus limiting our ability to control the operation of such projects. Any existing or new operations may also be subject to significant political, economic and financial risks, which vary by country, and may include: (a) changes in government policies or personnel; (b) changes in general economic conditions; (c) restrictions on currency transfer or convertibility; (d) changes in labour relations; (e) political instability and civil unrest; (f) regulatory or other changes in the local electricity market; and (g) breach or repudiation of important contractual undertakings by governmental entities and expropriation and confiscation of assets and facilities for less than fair market value.

With respect to acquisitions, we cannot make assurances that we will identify suitable transactions or that we will have access to sufficient resources, through our credit facilities, the capital markets or otherwise, to pursue and complete any identified acquisition opportunities on a timely basis and at a reasonable cost. Any acquisition that we propose or complete would be subject to normal commercial risks that the transaction may not be completed on the terms negotiated, on time, or at all. An unavoidable level of risk remains regarding potential undisclosed or unknown liabilities relating to any acquisition. The existence of such undisclosed liabilities may have a material adverse impact on our business, financial condition, results of operations and cash flows.

We could suffer lost revenues or increased expenses and penalties if we are unable to operate our generation facilities at a level necessary to comply with our PPAs.

The ability of our facilities to generate the maximum amount of power or steam that can be sold under PPAs is an important determinant of our revenues. Under certain PPAs, if the facility is not capable of generating electricity or steam for the required availability in a given contract year, penalty payments may be payable to the relevant purchaser by us and could give rise to termination rights. The payment of any such penalties or the termination of such PPAs could adversely affect our revenues and profitability.

We are dependent on access to parts and equipment from certain key suppliers and we may be adversely affected if these relationships are not maintained.

Our ability to compete and expand will be dependent on having access, at a reasonable cost, to equipment, parts and components that are technologically and economically competitive with those used by our competitors. Although we have individual framework agreements with various suppliers, there can be no assurance that these relationships with suppliers will be maintained. If they are not maintained, our ability to compete may be impaired due to lack of access to these sources of equipment, parts or components.

We depend on certain joint venture, strategic and other partners that may have interests or objectives that conflict with our objectives and such differences could have a negative impact on us.

We have entered into various arrangements with communities or joint venture, strategic or other partners in connection with the operation of our facilities and assets. Certain of these partners may have or develop interests or objectives that are different from, or in conflict with, our objectives. Any such differences could have a negative impact on the Company's ability to realize upon the anticipated benefits of, or the anticipated increase in the value of facilities or assets subject to, these arrangements. We are sometimes required through the permitting and approval processes to notify and consult with various stakeholder groups, including landowners, First Nations and municipalities. Any unforeseen delays in this process may negatively impact our ability to complete any given facility on time or at all and could result in write-offs or give rise to reputational harm.

Dam and dyke failures may result in lost generating capacity, increased maintenance and repair costs and other liabilities.

A natural or man-made disaster, and certain other events, including natural or induced seismic activity, could potentially cause dam failures at our hydroelectric facilities. The occurrence of dam or dyke failures at any of our hydroelectric or coal facilities could result in a loss of generating capacity, damage to the environment or damages and harm to third parties or the public, and such failures could require us to incur significant expenditures of capital and other resources or expose us to significant liabilities for damages. There can be no assurance that our dam safety program will be able to detect potential dam failures prior to occurrence or eliminate all adverse consequences in the event of failure. Other safety regulations could change from time to time, potentially impacting our costs and operations. Reinforcing all dams or dykes to enable them to withstand more severe events could require us to incur significant expenditures of capital and other resources. The consequences of dam or dyke failures could have a material adverse effect on us.

The power generation industry has certain inherent risks related to worker health and safety, and the environment, that could cause us to suffer unanticipated expenditures or to incur fines, penalties or other consequences material to its business and operations.

The ownership and operation of our power generation assets carry an inherent risk of liability related to worker health and safety, and the environment, including the risk of government-imposed orders to remedy unsafe conditions and/or to remediate or otherwise address environmental contamination, potential penalties for contravention of health, safety and environmental laws, licenses, permits and other approvals, and potential civil liability. Compliance with (and any future changes to) health, safety and environmental laws and the requirements of licenses, permits and other approvals are expected to remain material to our business. The occurrence of any of these events or any changes, additions to, or more rigorous enforcement of, health, safety and environmental laws, licenses, permits or other approvals could have a significant impact on our operations and/or result in additional material expenditures. As a consequence, no assurances can be given that additional environmental and workers' health and safety issues relating to presently known or unknown matters will not require unanticipated expenditures, or result in fines, penalties or other consequences (including changes to operations) material to our business and operations.

Climate change and other variations in weather can affect demand for electricity and our ability to generate electricity.

Due to the nature of our business, our earnings are sensitive to weather variations from period to period. Variations in winter weather affect the demand for electrical heating requirements. Variations in summer weather affect the demand for electrical cooling requirements. These variations in demand translate into spot market price volatility. Variations in precipitation also affect water supplies, which in turn affect our hydroelectric assets. Also, variations in sunlight conditions can have an effect on energy production levels from our solar facilities. Variations in weather may be impacted by climate change resulting in sustained higher temperatures and rising sea levels that could have an impact on our generating assets. In Western Australia and other operating locations, temperatures could periodically exceed certain operating and safety thresholds, which could make it difficult for the Company to continue to generate electricity for such periods, and such circumstances could pose threats to the Company's equipment and personnel.

Ice can accumulate on wind turbine blades in the winter months. The accumulation of ice on wind turbine blades depends on a number of factors, including temperature, and ambient humidity. The accumulation of ice on wind turbine blades can have a significant impact on energy yields, and could result in the wind turbine experiencing more down time. Extreme cold temperatures can also impact the ability of wind turbines to operate effectively and this could result in more downtime and reduced production.

In addition, climate change could result in increased variability to our water and wind resources.

Many of our activities and properties are subject to environmental requirements and changes in, or liabilities under these requirements, may materially adversely affect our business.

Our operations are subject to federal, provincial, state and local environmental laws, regulations and guidelines, relating to the generation and transmission of electrical and thermal energy and surface mining, pertaining to pollution and protection of the environment, health and safety, and governing, among other things, air emissions, water usage and discharges, storage, treatment and disposal of waste and other materials and remediation of sites and land use responsibility (collectively, "environmental regulations"). These laws can impose liability and obligations for costs to investigate and remediate contamination without regard to fault, and under certain circumstances liability may be joint and several, resulting in one responsible party being held responsible for the entire obligation. Environmental regulation can also impose, among other things, restrictions, liabilities and obligations in connection with the generation, handling, use, storage, transport, treatment and disposal of hazardous substances and waste, and can impose clean-up, disclosure or other responsibilities with respect to spills, releases and emissions of various substances to the environment. Environmental regulation can also require that facilities and other properties associated with our operations be operated, maintained, abandoned and reclaimed to the satisfaction of applicable regulatory authorities. In addition, there is an increasing level of environmental regulation regarding the use, treatment and discharge of water and we anticipate the adoption of new or additional emission regulations at a national level in Canada, the US and Australia, which may impose different compliance requirements or standards on our business. These various compliance standards may result in additional costs for our business or may impact our ability to operate our facilities.

Stricter standards, new or greater regulation, increased enforcement by regulatory authorities, more extensive permitting requirements, an increase in the number and types of assets operated by the Company subject to environmental regulation and the implementation of provincial, state and national environmental regulations may impose varying obligations on us in the jurisdictions in which we operate and which could increase the amount of our expenditures. To the extent these expenditures cannot be passed through to our customers under our PPAs or otherwise, our costs could be material. In addition, compliance with environmental regulation might result in restrictions on some of our operations. If we do not comply with environmental regulation, regulatory agencies could seek to impose statutory, administrative and/or criminal liabilities on us, curtail our operations, or require significant expenditures on compliance, new equipment or technology, reporting obligations and research and development. A number of recent federal, provincial, state and local regulatory efforts continue to focus on potential climate change or GHG emissions regulation, and mandatory GHG reporting requirements are in effect in both Canada and the US.

In addition to environmental regulations, we could also face civil liability in the event that private parties seek to impose liability on us for property damage, personal injury or other costs and losses. We cannot guarantee that lawsuits or administrative or investigative actions will not be commenced against us and otherwise affect our operations and assets. If an action is filed against us or may otherwise affect our operations and assets, we could be required to make substantial expenditures to defend against or evidence our activities or to bring our Company, our operations and assets into compliance, which could have a material adverse effect on our business.

The estimated reclamation costs applicable to the Company's operations may be inaccurate and could require greater financial resources than currently anticipated. As a mine owner, we maintain permits from the applicable regulatory body providing for the authorization of certain mining operations that result in a disturbance of the surface. These requirements seek to limit the adverse impacts of coal mining and more restrictive requirements may be adopted from time to time. As a mine owner, we may also be required to submit a bond or otherwise secure payment of certain long-term obligations including mine closure or reclamation costs. Surety bond costs have increased in recent years and the market terms of such bonds have generally become more unfavourable. In addition, the number of companies willing to issue surety bonds has decreased. We could be required to self-fund these obligations should we be unable to renew or secure the required surety bonds for our mining operations or if it becomes more economical to do so.

The laws and regulations in the various markets in which we operate are subject to change, which may materially adversely affect us.

Most of the markets in which we operate and intend to operate are subject to significant regulatory oversight and control. We are not able to predict whether there will be any further changes in the regulatory environment, including potential carbon and other environmental regulations, changes in market structure or market design, or changes in other laws and regulations. Existing market rules, regulations and reliability standards are often dynamic and may be revised or re-interpreted, and new laws and regulations may be adopted or become applicable to us or our facilities, which could have a material adverse effect on us.

We manage these risks systematically through a regulatory and compliance program designed to reduce any potential negative impact on us. However, we cannot guarantee that we will be able to adapt our business in a timely manner in response to any changes in the regulatory regimes in which we operate, and such failure to adapt could have a material adverse effect on our business.

Regulatory authorities may also from time to time audit or investigate our activities in the markets in which we operate or pursue trading. Such audits or investigations may result in sanctions or penalties that may materially affect our future activities, reputation or financial status.

Our facilities are also subject to various licensing and permitting requirements in the jurisdictions in which we operate. Many of these licenses and permits need to be renewed from time to time. If we are unsuccessful in obtaining or renewing such licenses or permits, or the terms of such licenses or permits are changed in a manner that is adverse to our business, we could be materially adversely affected.

Any changes in the rules and regulations of provincial or state public utility commissions or other regulatory bodies in the other markets in which we compete, or may compete in the future, may materially adversely affect us.

We may be adversely affected if our supply of water is materially reduced.

Hydroelectric, natural gas and coal-fired facilities require continuous water flow for their operation. Shifts in weather or climate patterns, seasonal precipitation, the timing and rate of melting, run-off, and other factors beyond our control, may reduce the water flow to our facilities. Any material reduction in the water flow to our facilities would limit our ability to produce and market electricity from these facilities and could have a material adverse effect on us. There is an increasing level of regulation respecting the use, treatment and discharge of water, and respecting the licensing of water rights in jurisdictions where we operate. Any such change in regulations could have a material adverse effect on us.

Variation in wind levels may negatively impact the amount of electricity generated at our wind facilities.

Given that wind is naturally variable, the level of electricity produced from our wind facilities is also variable. In addition, the strength and consistency of the wind resource at our wind facilities may vary from what we anticipate due to a number of factors, including the extent to which our site-specific historic wind data and wind forecasts accurately reflect actual long-term wind speeds, strength and consistency, the potential impact of climatic factors, the accuracy of our assumptions relating to, among other things, weather, icing, degradation, site access, wake and wind shear line losses and wind shear, and the potential impact of topographical variations.

A reduced amount of wind at the location of one or more of our wind facilities over an extended period may reduce the production from such facilities, as well as any environmental attributes that accrue to us related to that production and reduce our revenues and profitability.

Availability or disruption of fuel supply to our thermal plants could have an adverse impact on the operation of our facilities and our financial condition.

Our Gas facilities are reliant on having adequate natural gas and our Centralia facility requires coal available to run the facility reliably and at full capacity. As a result, we face the risk of not having adequate fuel supplies available due to insufficient natural gas transportation service, disruptions in fuel supplies due to weather, strikes, lock-outs, or breakdowns of equipment, or timing of receiving regulatory approvals. As well, the coal used to fuel the Centralia facility is sourced from the Powder River Basin in Montana and Wyoming through contracts to purchase and transport such coal to our Centralia facility. The loss of our suppliers or inability to receive coal at Centralia under our existing coal contracts at sufficient quantities, or at all, could also significantly affect our ability to serve our customers and have an adverse impact on our financial condition and results of operations. We could face the risk of adequate supply service due to our reliance on the Pioneer Pipeline as a significant provider of natural gas for our Sundance and Keephills units.

Our facilities rely on national and regional transmission systems and related facilities that are owned and operated by third parties and have both regulatory and physical constraints that could impede access to electricity markets.

Our power generation facilities depend on electric transmission systems and related facilities owned and operated primarily by third parties to deliver the electricity that we generate to delivery points where ownership changes and we are paid. These grids operate with both regulatory and physical constraints that in certain circumstances may impede access to electricity markets. There may be instances in system emergencies in which our power generation facilities are physically disconnected from the power grid, or our production curtailed for periods of time. Most of our electricity sales contracts do not provide for payments to be made if electricity is not delivered.

Our power generation facilities may also be subject to changes in regulations governing the cost and characteristics of use of the transmission and distribution systems to which our power generation facilities are connected. Our power generation facilities in the future may not be able to secure access to this interconnection or transmission capacity at reasonable prices, in a timely fashion or at all, which could then cause delays and additional costs in attempting to negotiate or renegotiate PPAs or to construct new projects. In addition, we may not benefit from preferential arrangements in the future. Any such increased costs and delays could delay the commercial operation dates of any new projects and negatively impact our revenues and financial condition.

Cyberattacks may cause disruptions to our operations and could have a material adverse effect on our business.

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

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

While we have cyber insurance, as well as systems, policies, procedures, practices, hardware, software applications, and data backups designed to prevent or limit the effect of security breaches of our network and infrastructure, there can be no assurance that these measures will be sufficient and that such security breaches will not occur or, if they do occur, that they will always be adequately addressed in a timely manner.

Our communications and monitoring technology and operating systems may experience interruptions or breaches in security which could subject us to increased operating costs and other liabilities.

We rely on technology, mainly on computer, telephone, satellite, cellular and related networks and infrastructure, to conduct our business and monitor the production of our generation facilities. These systems and infrastructure could be vulnerable to unforeseen problems including, but not limited to, cyberattacks, breaches, vandalism and theft. Our operations are dependent upon our ability to protect our information and operating technology against damage from fire, power loss, telecommunications failure or a similar catastrophic event. While we have dedicated resources for maintaining appropriate levels of cybersecurity and we use third-party technology to help protect us against security breaches and cyber incidents, our measures may not be effective and our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such security breaches and cyber incidents or other disruptions could jeopardize the security of information stored in and transmitted through our systems and network infrastructure, and could result in significant setbacks and potential liabilities, and deter future customers. Additionally, we must be able to protect our generation facility infrastructure against physical damage and any service disruptions.

Any damage or failure that causes an interruption in operations could have an adverse effect on our customers. While we have systems, policies, hardware, practices and procedures designed to prevent or limit the effect of failure or interruptions of our generation facilities and infrastructure, there can be no assurance that these measures will be sufficient and that any such failures or interruptions will not occur or, if they do occur, that they will be adequately addressed in a timely manner.

We operate in a highly competitive environment and may not be able to compete successfully.

We operate in a number of Canadian provinces, as well as in the US and Australia. These areas of operation are affected by competition ranging from large utilities to small IPPs, as well as private equity, international conglomerates, traditional energy companies and technology firms. In addition, potential customers may look to deploy their own capital to self-supply their own electricity needs. Some competitors have significantly greater financial and other resources than we do. Such competition could have a material adverse effect on our business. Emerging technology affecting the demand, generation, distribution or storage of electricity may also significantly impact our business and ability to compete. Furthermore, older facilities may over time be unable to compete with newer more efficient facilities utilizing improvements to existing power technologies and cost-efficient new technologies. Climate change will drive innovation and transformation of the power generation sector, including energy production and consumption.

Changes in the price and availability of fuel supplies required to generate electricity may materially and adversely affect our business.

We buy natural gas to supply the fuel needed to generate electricity. We could be materially adversely affected if the cost of fuel that we must buy to generate electricity increases to a greater degree than the price that we can obtain for the electricity that we sell. Several factors affect the price of fuel, many of which are beyond our control, including:

- prevailing market prices for fuel;
- global demand for energy products;
- the cost of carbon and other environmental concerns;
- weather-related disruptions affecting the ability to deliver fuels or near term demand for fuels;
- increases in the supply of energy products in the wholesale power markets;
- the extent of fuel transportation capacity or cost of fuel transportation service into our markets; and
- the cost of mining or extraction that, in turn, depends on various factors such as labour market pressures, equipment replacement costs and permitting.

Changes in any of these factors may increase our cost of producing power or decrease the amount of revenue received from the sale of power, which could have a material adverse effect on us.

Changes in general economic and market conditions may have a material adverse effect on us.

Adverse changes in general economic and market conditions and, more specifically, in the markets in which we operate, could negatively impact demand for electricity, revenue, operating costs, timing and extent of capital expenditures, the net recoverable value of plant, property and equipment, results of financing efforts, or credit risk and counterparty risk, which could cause us to suffer a material adverse effect. Furthermore, a period of prolonged inflation may negatively impact our revenue, operating costs, maintenance costs and capital expenditures.

We may be unsuccessful in legal actions.

We are occasionally named as a defendant in claims and legal actions and as a party in commercial disputes that are resolved by arbitration or other legal proceedings. We may also bring legal actions against third parties as part of a commercial dispute through an arbitration or other legal proceeding. There can be no assurance that we will be successful in any such claim or defense or that any claim or legal action that is decided adverse to us will not materially and adversely affect us. See "*Legal Proceedings and Regulatory Actions*" section of this AIF.

We may have difficulty raising needed capital in the future, which could significantly harm our business.

To the extent that our sources of cash and cash flow from operations are insufficient to fund our activities, we may need to raise additional funds. Additional financing may not be available when needed, and if such financing is available, it may not be available on terms that are favourable to our business.

Recovery of the capital investment in power projects generally occurs over a long period of time. As a result, we must obtain funds from equity or debt financings, including tax equity transactions, or from government grants, to help finance the acquisition and development of projects and to support the general and administrative costs of operating our business. Our ability to arrange financing, either at the corporate level or at the subsidiary level (including non-recourse project debt), and the costs of such capital are dependent on numerous factors, including: (a) general economic and capital market conditions; (b) credit availability from banks and other financial institutions; (c) investor confidence and the markets in which we conduct operations; (d) our financial performance and/or the expected financial performance of certain assets; (e) our level of indebtedness and compliance with covenants in our debt agreements; and (f) our cash flow.

An increase in interest rates or a reduction in the availability of project debt financing could reduce the number of projects that we are able to finance. If we are unable to raise additional funds when needed, we could be required to delay acquisition and construction of growth projects, reduce the scope of projects, abandon or sell some or all of our projects or generation facilities, or default on our contractual commitments in the future, any of which could adversely affect our business, financial condition and results of operations.

TransAlta's debt securities will be structurally subordinated to any debt of our subsidiaries that is currently outstanding or may be incurred in the future.

We operate our business through, and a majority of our assets are held by, our subsidiaries, including partnerships. Our results of operations and ability to service indebtedness are dependent upon the results of operations of our subsidiaries, including TransAlta Renewables, and the payment of funds by these subsidiaries to TransAlta in the form of loans, dividends or otherwise. Our subsidiaries may be restricted in their ability to pay amounts due, or make any funds available for payment in respect of debt securities issued by TransAlta, whether by dividends, interests, loans, advances or other payments. In addition, the payment of dividends and the making of loans, advances and other payments to us by our subsidiaries may be subject to statutory or contractual restrictions or tax withholding amounts.

In the event of the liquidation of any subsidiary, the assets of the subsidiary would be used first to repay the indebtedness of the subsidiary, including trade payables or obligations under any guarantees, before being used to pay TransAlta's indebtedness, including any debt securities issued by TransAlta. Such indebtedness and any other future indebtedness of such subsidiaries would be structurally senior for such subsidiary to any debt securities issued by TransAlta.

Our subsidiaries have financed some investments using non-recourse project financing. Each non-recourse project loan is structured to be repaid out of cash flow provided by the investment. In the event of a default under a financing agreement that is not cured, the lenders would generally have rights to the related assets. In the event of foreclosure after a default, our subsidiary may lose its equity in the asset or may not be entitled to any cash that the asset may generate. Although a default under a project loan will not cause a default with respect to any debt securities issued by TransAlta, it may materially affect our ability to service our outstanding indebtedness.

A downgrade of our credit ratings could materially and adversely affect us.

Rating agencies regularly evaluate us, basing their ratings of our long-term and short-term debt, along with our issuer rating on a number of factors. There can be no assurance that one or more of our credit ratings and the corresponding outlook will not be changed. Our borrowing costs and ability to raise funds are directly impacted by our credit ratings. Credit ratings may be important to suppliers or counterparties when they seek to engage in certain transactions with us. A credit rating downgrade could potentially impair our ability to enter into arrangements with suppliers or counterparties, to engage in certain transactions, and could limit our access to private and public credit markets and increase the costs of borrowing under our existing credit facilities. See Note 16(F) of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "Documents Incorporated by Reference" section of this AIF.

Changes to our reputation may have a material adverse effect on us.

Reputation risk relates to the risk associated with our business because of changes in opinion from the general public, private stakeholders, governments, financiers and other entities. Our reputation is one of our most valued assets. The potential for harming our reputation exists in every business decision and all risks can have an impact on reputation, which in turn can negatively impact our business and securities. Reputational risk cannot be managed in isolation from other forms of risk. Negative impacts from a compromised reputation could include revenue loss, reduction in customer base, and decreased value of our securities.

We may fail to meet financial expectations.

Our quarterly revenue, earnings, cash flows and results of operations are difficult to predict and fluctuate from quarter to quarter. Our quarterly results of operations are influenced by a number of factors, including the risks described in this AIF, many of which are outside of our control and that may cause such results to fall below market expectations. Although we base our planned operating expenses in part on our expectations of future revenue, a significant portion of our expenses are relatively fixed in the short term. If revenue for a particular quarter is lower than expected, we likely will be unable to proportionately reduce our operating expenses for that quarter, which will adversely affect our results of operations for that quarter.

Our cash dividend payments are not guaranteed.

The payment of dividends is not guaranteed and could fluctuate. The Board has the discretion to determine the amount and timing of any dividends to be declared and paid to our shareholders. In addition, the payment of dividends on common shares is, in all cases, subject to prior satisfaction of preferential dividends applicable to each series of our first preferred shares. We may alter our dividend on common shares at any time. The Board's determination to declare dividends will depend on, among other things: results of operations; financial condition; current and expected future levels of earnings; operating cash flow; liquidity requirements; market opportunities; income taxes; maintenance and growth capital expenditures; debt repayments; legal, regulatory and contractual constraints; working capital requirements; tax laws; and other relevant factors. Our short- and long-term borrowings may prohibit us from paying dividends at any time at which a default or event of default would exist under such debt, or if a default or event of default would exist as a result of paying the dividend.

Over time, our capital and other cash needs may change significantly from our current needs, which could affect whether we pay dividends, and the amount of any dividends we may pay in the future. If we continue to pay dividends at the current level, we may not retain a sufficient amount of cash to finance growth opportunities, meet any large unanticipated liquidity requirements or fund our operations in the event of a significant business downturn. The Board, subject to the requirements of our bylaws and other governance documents, may amend, revoke or suspend our dividend at any time. A decline in the market price or liquidity, or both, of our common shares could result if the Board establishes large reserves that reduce the amount of quarterly dividends paid, or if we reduce or eliminate the payment of dividends.

We are dependent on the operations of our facilities for our cash availability. The actual amount of cash available for dividends to holders of our common shares will depend upon numerous factors relating to each of our generation facilities including: operating performance of our generation facilities; profitability; changes in gross margin; fluctuations in working capital; capital expenditure levels; applicable laws; compliance with contracts; and contractual restrictions contained in the instruments governing any indebtedness. Any reduction in the amount of cash available for distribution from our generation facilities will reduce the amount of cash available to pay dividends to holders of our common shares.

The market price for our common shares may be volatile.

The market price for our common shares may be volatile and subject to wide fluctuations in response to numerous factors, many of which are beyond our control, including: (a) actual or anticipated fluctuations in our results of operations; (b) recommendations by securities research analysts; (c) changes in the economic performance or market valuations of other companies that investors deem comparable; (d) the loss or resignation of executive officers and other key personnel; (e) sales or perceived sales of additional common shares; (f) significant acquisitions or business combinations, strategic partnerships, joint ventures or capital commitments by or involving us or our competitors; and (g) trends, concerns, technological or competitive developments, regulatory changes and other related issues in the power generation industry or our target markets.

Financial markets have experienced significant price and volume fluctuations in recent years that have particularly affected the market prices of equity securities of companies and such fluctuations have, in many cases, been unrelated to the operating performance, underlying asset values or prospects of such companies. Accordingly, the market price of our common shares may decline even if our operating results, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause decreases in asset values that may result in impairment losses. Certain institutional investors may base their investment decisions on consideration of our environmental, governance and social practices and performance against such institutions' respective investment guidelines and criteria, and failure to meet such criteria may result in a limited or no investment in our common shares by those institutions, which could adversely affect the trading price of our common shares.

Our revenues may be reduced upon expiration or termination of PPAs.

We sell power under PPAs that expire at various times. In addition, these PPAs may be subject to termination in certain circumstances, including default by the facility or plant owner or operator. When a PPA expires or is terminated, it could result in us having less stable cash flows and it is possible that the price received by the relevant facility or plant for power under subsequent selling arrangements may be reduced significantly. It is also possible that to the extent a PPA is negotiated after the initial PPAs have run their course, the new contract may not be available at prices that permit the continued operation of the affected facility or plant on a profitable basis. If this occurs, the affected facility or plant may be forced to permanently cease operations.

Trading risks may have a material adverse effect on our business.

Our trading and marketing business frequently involves establishing trading positions in the wholesale energy markets on both a medium-term and short-term basis, and on both an asset and proprietary basis. To the extent that we have long positions in the energy markets, a downturn in market prices will result in losses from a decline in the value of such long positions. Conversely, to the extent that we enter into forward sales contracts to deliver energy that we do not own, or take short positions in the energy markets, an upturn in market prices will expose us to losses as we attempt to cover any short positions by acquiring energy in a rising market.

In addition, from time to time, we may have a trading strategy consisting of simultaneously holding a long position and a short position, from which we expect to earn a profit based on changes in the relative value of the two positions. If, however, the relative value of the two positions changes in a direction or manner that we did not anticipate, we would realize losses from such a paired position.

If the strategy that we use to hedge our exposures to these various risks is not effective, we could incur significant losses. Our trading positions can be impacted by volatility in the energy markets that, in turn, depend on various factors, including weather in various geographical areas and short-term supply and demand imbalances, which cannot be predicted with any certainty. A shift in the energy markets could adversely affect our positions, which could also have a material adverse effect on our business.

We use a number of risk management controls conducted by our independent Risk Management group in order to limit our exposure to risks arising from our trading activities. These controls include risk capital limits, Value at Risk, Gross Margin at Risk, tail risk scenarios, position limits, concentration limits, credit limits, and approved product controls. We cannot guarantee that losses will not occur and such losses may be outside the parameters of our risk controls.

Certain of the contracts to which we are a party require that we provide collateral against our obligations.

We are exposed to risk under certain financial derivative contracts and electricity and natural gas purchase and sale contracts entered into for the purposes of hedging and proprietary trading. The terms and conditions of these contracts require us to provide collateral when the fair value of these contracts is in excess of any credit limits granted by our counterparties and the contract obliges that we provide the collateral. The change in fair value of these contracts occurs due to changes in commodity prices. These contracts include: (a) financial derivative contracts when forward commodity prices are more or less than contracted prices, depending on the transactions; (b) purchase agreements, when forward commodity prices are less than contracted prices; and (c) sales agreements, when forward commodity prices exceed contracted prices. Downgrades in our creditworthiness by certain credit rating agencies may decrease the credit limits granted by our counterparties and, accordingly, increase the amount of collateral that we may have to provide, which could materially adversely affect us.

If counterparties to our contracts are unable to meet their obligations, we may be materially and adversely affected.

If purchasers of our electricity and steam or other contractual counterparties default on their obligations, we may be materially and adversely affected. While we have procedures and controls in place to manage our counterparty credit risk before entering into contracts, all contracts inherently contain default risk. Moreover, while we seek to monitor trading activities to ensure that the credit limits for counterparties are not exceeded, we cannot guarantee that a party will not default. If counterparties to our contracts are unable to meet their obligations, we could suffer a reduction in revenue that could have a material adverse effect on our business.

Because of our multinational operations, we are subject to currency rate risk and regulatory and political risk.

We have exposure to various currencies as a result of our investments and operations in foreign jurisdictions, the cash flows from those operations, the acquisition of equipment and services from foreign suppliers, and our US and Australian dollar denominated debt. Our exposures are primarily to the US and Australian currencies, and changes in the values of these currencies relative to the Canadian dollar could negatively impact our operating cash flows or the value of our foreign investments. While we attempt to manage this risk by using hedging instruments, including cross-currency interest rate swaps, forward exchange contracts and matching revenues and expenses by currency at the corporate level, there can be no assurance that these risk management efforts will be effective, and fluctuations in these exchange rates may have a material adverse effect on our business.

In addition to currency rate risk, our foreign operations may be subject to regulatory and political risk. Any change to the regulations governing power generation or the political climate in the countries where we have operations could impose additional costs and have a material adverse effect on us.

We are not able to insure against all potential risks and may become subject to higher insurance premiums.

Our business is exposed to the risks inherent in the construction and operation of electricity generation facilities, such as breakdowns, manufacturing defects, natural disasters, injury, damage to third parties, theft, terrorist attacks, cyberattacks and sabotage. We are also exposed to environmental risks. We maintain insurance policies, covering usual and customary risks associated with our business, with creditworthy insurance carriers. Our insurance policies, however, may not cover losses, or may be subject to limitations in coverage as a result of force majeure, natural disasters, terrorist or cyberattacks or sabotage, among other perils. In addition, we generally do not maintain insurance for certain environmental risks, such as environmental contamination. Our insurance policies are subject to annual review by the respective insurers and may not be renewed at all or on similar or favourable terms. A significant uninsured loss or a loss significantly exceeding the limits of our insurance policies or the failure to renew such insurance policies on similar or favourable terms could have a material adverse effect on our business, financial condition and results of operations.

Our insurance coverage may not be available in the future on commercially reasonable terms or adequate insurance limits may not be available in the market. In addition, the insurance proceeds received for loss or damage to any of our generation facilities may not be sufficient to permit us to continue to make payments on our debt.

Provision for income taxes may not be sufficient.

Our operations are complex, and the computation of the provision for income taxes involves tax interpretations, regulations, and legislation that are continually changing. In addition, our tax filings are subject to audit by taxation authorities. While we believe that our tax filings have been made in material compliance with all applicable tax interpretations, regulations, and legislation, we cannot guarantee that we will not have disagreements with taxation authorities with respect to our tax filings that could have a material adverse effect on our business.

The Company and its subsidiaries are subject to changing tax laws, treaties and regulations in and between countries. Various tax proposals in the countries we operate in could result in changes to the basis on which deferred taxes are calculated or could result in changes to income or non-income tax expense. There has recently been an increased focus on issues related to the taxation of multinational corporations. A change in tax laws, treaties or regulations, or in the interpretation thereof, could result in a materially higher income or non-income tax expense that could have a material adverse impact on us.

We are subject to uncertainties regarding when we will become cash taxable.

Our anticipated cash tax horizon is subject to risks, uncertainties and other factors that could cause the cash tax horizon to occur sooner than currently projected. In particular, our anticipated cash tax horizon is subject to risks pertaining to changes in our operations, asset base, corporate structure or changes to tax legislation, regulations or interpretations. In the event we become cash taxable sooner than projected, our cash available for distribution and our dividend could decrease, which could in turn have a material adverse impact on the value of our shares.

If we fail to attract and retain key personnel, we could be materially adversely affected.

The loss of any of our key personnel or our inability to attract, train, retain and motivate additional qualified management and other personnel could have a material adverse effect on our business. Competition for these personnel is intense and there can be no assurance that we will be successful in this regard.

If we are unable to successfully negotiate new collective bargaining agreements with our unionized workforce, as required from time to time, we will be adversely affected.

While we believe we have a satisfactory relationship with our unionized employees, we cannot guarantee that we will be able to successfully negotiate or renegotiate our collective bargaining agreements on terms agreeable to TransAlta. In 2021, we successfully renegotiated one collective bargaining agreement. We expect to renegotiate seven collective bargaining agreements in 2022 and expect to renegotiate one collective bargaining agreement in 2023. Any problems in negotiating these collective bargaining agreements could lead to higher employee costs and a work stoppage or strike, which could have a material adverse effect on us.

Employees

The Company is required to develop and retain a skilled workforce for its operations. Many of the employees of the Company possess specialized skills and training and the Company must compete in the marketplace for these workers. As at Dec. 31, 2021, we had 1,282 active employees, which includes full-time, part-time and temporary employees. Approximately 33 per cent of our employees are represented by labour unions. We are currently a party to 11 different collective bargaining agreements.

Capital and Loan Structure

Our authorized share capital consists of an unlimited number of common shares and an unlimited number of first preferred shares, issuable in series. As at Feb. 23, 2022, there were 271,219,820 common shares outstanding and 9,629,913 Series A Shares, 2,370,087 Series B Shares, 11,000,000 Series C Shares, 9,000,000 Series E Shares, 6,600,000 Series G Shares and 400,000 Series I Shares outstanding (as defined below). The Company does not have any escrowed securities.

Common Shares

Each common share of the Company entitles the holder thereof to one vote for each common share held at all meetings of shareholders of the Company, except meetings at which only holders of another specified class or series of shares are entitled to vote, to receive dividends if, as and when declared by the Board, subject to prior satisfaction of preferential dividends applicable to any first preferred shares, and to participate rateably in any distribution of our assets upon a liquidation, dissolution or winding up and subject to prior rights and privileges attaching to first preferred shares. The common shares are not convertible and are not entitled to any preemptive rights. The common shares are not entitled to cumulative voting.

Normal Course Issuer Bid

On May 25, 2021, the TSX accepted the Company's notice filed to implement an NCIB for a portion of its common shares. The Board has authorized repurchases of up to a maximum of 14,000,000 common shares, representing approximately seven per cent of TransAlta's public float. Purchases under the NCIB are expected to be made through open market transactions on the TSX and any alternative Canadian trading platforms, based on the prevailing market price. Any common shares purchased under the NCIB will be cancelled.

The period during which TransAlta is authorized to make purchases under the NCIB began on May 31, 2021, and ends on May 30, 2022, or such earlier date on which the maximum number of common shares are purchased under the NCIB or the NCIB is terminated at the Company's election.

Under TSX rules, not more than 169,737 common shares (being 25 per cent of the average daily trading volume on the TSX of 678,948 common shares for the six months ended April 30, 2021) can be purchased on the TSX on any single trading day under the NCIB, with the exception that one block purchase in excess of the daily maximum is permitted per calendar week.

During the year ended Dec. 31, 2021, the Company did not purchase and cancel common shares under the NCIB. See Note 27 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "Documents Incorporated by Reference" section of this AIF.

First Preferred Shares

We are authorized to issue an unlimited number of first preferred shares, issuable in series and, with respect to each series, the Board is authorized to fix the number of shares comprising the series and determine the designation, rights, privileges, restrictions and conditions attaching to such shares, subject to certain limitations.

The first preferred shares of all series rank senior to all other shares of the Company with respect to priority in payment of dividends and with respect to distribution of assets in the event of liquidation, dissolution or winding up of the Company, or a reduction of stated capital. Holders of first preferred shares are entitled to receive cumulative quarterly dividends on the subscription price thereof as and when declared by the Board at the rate established by the Board at the time of issue of shares of a series. No dividends may be declared or paid on any other shares of the Company unless all cumulative dividends accrued upon all outstanding first preferred shares have been paid or declared and set apart. In the event of the liquidation, dissolution or winding up of the Company, or a reduction of stated capital, no sum shall be paid or assets distributed to holders of other shares of the Company until the holders of first preferred shares shall have been paid the subscription price of the shares, plus a sum equal to the premium payable on a redemption, plus a sum equal to the arrears of dividends accumulated on the first preferred shares to the date of such liquidation, dissolution, winding up or reduction of stated capital, as applicable. After payment of such amount, the holders of first preferred shares shall not be entitled to share further in the distribution of our assets.

The Board may include, in the share conditions attaching to a particular series of first preferred shares, certain voting rights effective upon our failing to make payment of six quarterly dividend payments, whether or not consecutive. These voting rights continue for so long as any dividends remain in arrears. These voting rights are the right to one vote for each \$25.00 of subscription price on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of TransAlta if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Subject to the share conditions attaching to any particular series providing to the contrary, we may redeem the first preferred shares of a series, in whole or from time to time in part, at the redemption price applicable to each series and we have the right to acquire any of the first preferred shares of one or more series by purchase for cancellation in the open market or by invitation for tenders at a price not to exceed the redemption price applicable to the series.

Series A Shares

Twelve million Series A Shares were issued on Dec. 10, 2010, with a coupon of 4.60 per cent, for gross proceeds of \$300 million. On March 31, 2016, 1,824,620 of the Series A Shares were converted into Series B Shares on a one-for-one basis. On March 31, 2021, 1,417,338 of the Series A Shares were converted into Series B Shares on a one-for-one basis and 871,871 Series B Shares were converted into Series A Shares on a one-for-one basis. Certain provisions of the Series A Shares are discussed below.

Dividends on Series A Shares

The holders of Series A Shares are entitled to receive, as and when declared by the Board out of moneys of TransAlta properly applicable to the payment of dividends, fixed cumulative preferential cash dividends payable quarterly on the last day of March, June, September and December in each year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day.

For each five-year period after the Initial Fixed Rate Period (each a "Subsequent Fixed Rate Period"), the holders of Series A Shares shall be entitled to receive, as and when declared by the Board, fixed cumulative preferential cash dividends, payable quarterly on the last day of March, June, September and December in each year, in the amount per share determined by multiplying one-quarter of the Annual Fixed Dividend Rate for such Subsequent Fixed Rate Period by \$25.00 (less any tax that we are required to deduct and withhold). The Annual Fixed Dividend Rate for the ensuing Subsequent Fixed Rate Period will be determined by TransAlta on the Fixed Rate Calculation Date (30th day prior to the first day of such Subsequent Fixed Rate Period) and will be equal to the sum of the Government of Canada Yield (yield to maturity of a Government of Canada non-callable five-year bond) on the Fixed Rate Calculation Date plus a spread of 2.03 per cent. This spread will apply to both the Series A Shares and the Series B Shares described below, and will remain unchanged over the life of the Series A Shares.

Redemption of Series A Shares

The Series A Shares were redeemable by TransAlta, at its option, in whole or in part, on March 31, 2016, and will be redeemable on March 31 in every fifth year thereafter by the payment of an amount in cash for each share to be redeemed equal to \$25.00 plus all accrued and unpaid dividends thereon to but excluding the date fixed for redemption (less any tax that we are required to deduct and withhold).

If we give notice to the holders of the Series A Shares of the redemption of all of the Series A Shares, the right of a holder of Series A Shares to convert such Series A Shares shall terminate and we shall not be required to give notice to the registered holders of the Series A Shares of an Annual Fixed Dividend Rate, a Floating Quarterly Dividend Rate or the conversion right of holders of Series A Shares.

Conversion of Series A Shares into Series B Shares

The holders of the Series A Shares had the right to convert all or any of their shares into cumulative redeemable floating rate first preferred shares, Series B of TransAlta (the "Series B Shares"), subject to certain conditions, on March 31, 2016, and will again have the right to convert on March 31 in every fifth year thereafter. The holders of the Series B Shares will be entitled to receive, as and when declared by the Board, quarterly floating rate cumulative preferential cash dividends payable on the last day of March, June, September and December in each year (each such quarterly dividend period is referred to as a "Quarterly Floating Rate Period"), in the amount per share determined by multiplying the "Floating Quarterly Dividend Rate" (which means, for any Quarterly Floating Rate Period, the annual rate of interest (expressed as a percentage and rounded to the nearest one hundred-thousandth of one per cent), equal to the sum of the T-Bill Rate (which means, the average yield expressed as an annual rate on the 90-day Government of Canada treasury bill, as reported by the Bank of Canada, for the most recent treasury bills auction preceding the applicable Floating Rate Calculation Date) on the applicable date and 2.03 per cent) for such Quarterly Floating Rate Period by \$25.00 and multiplying that product by a fraction, the numerator of which is the actual number of days in such Quarterly Floating Rate Period and the denominator of which is 365 or 366, depending upon the actual number of days in the applicable year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day. The Floating Quarterly Dividend Rate will be the annual rate of interest equal to the sum of the T-Bill Rate on the applicable Floating Rate Calculation Date plus a spread of 2.03 per cent.

The Series A Shares and Series B Shares are series of shares in the same class. The conversion right entitles holders to elect periodically which of the two series they wish to hold and does not entitle holders to receive a different class or type of securities. Other than the different dividend rights and redemption rights attached thereto, the Series A Shares and Series B Shares are identical in all material respects.

On March 31, 2021, 1,417,338 of the Series A Shares were converted into Series B Shares on a one-for-one basis.

Voting Rights

The holders of the Series A Shares are not entitled to any voting rights or to receive notice of or to attend shareholders' meetings unless dividends on the Series A Shares are in arrears to the extent of six quarterly dividends, whether or not consecutive. Until all arrears of dividends have been paid, holders of Series A Shares will be entitled to receive notice of and to attend all shareholders' meetings at which directors are to be elected (other than separate meetings of holders of another class or series of shares) and to one vote in respect of each Series A Share held on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of the Company if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Modification

The provisions attaching to the Series A Shares as a class may be amended with the written approval of all the holders of Series A Shares outstanding or by at least two-thirds of the votes cast at a meeting of the holders of such shares duly called for the purpose and at which a quorum is present.

Series B Shares

On March 31, 2016, 1,824,620 of the Series A Shares were converted into Series B Shares on a one-for-one basis. On March 31, 2021, 1,417,338 of the Series A Shares were converted into Series B Shares on a one-for-one basis and 871,871 Series B Shares were converted into Series A Shares on a one-for-one basis. Certain provisions of the Series B Shares are discussed below.

Dividends on Series B Shares

The holders of Series B Shares are entitled to receive, as and when declared by the Board out of moneys of TransAlta properly applicable to the payment of dividends, floating rate cumulative preferential cash dividends payable quarterly on the last day of March, June, September and December in each year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day.

For each five-year period after conversion, the holders of Series B Shares shall be entitled to receive, as and when declared by the Board, quarterly floating rate cumulative preferential cash dividends, payable quarterly on the last day of March, June, September and December in each year (each such quarterly dividend period is referred to as a "Quarterly Floating Rate Period"), in the amount per share determined by multiplying the "Floating Quarterly Dividend Rate" (which means, for any Quarterly Floating Rate Period, the annual rate of interest, (expressed as a percentage and rounded to the nearest one hundred-thousandth of one per cent), equal to the sum of the T-Bill Rate (which means, the average yield expressed as an annual rate on the 90-day Government of Canada treasury bill, as reported by the Bank of Canada, for the most recent treasury bills auction preceding the applicable Floating Rate Calculation Date) on the applicable date and 2.03 per cent) for such Quarterly Floating Rate Period by \$25.00 and multiplying that product by a fraction, the numerator of which is the actual number of days in such Quarterly Floating Rate Period and the denominator of which is 365 or 366, depending upon the actual number of days in the applicable year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day. The Floating Quarterly Dividend Rate will be the annual rate of interest equal to the sum of the T-Bill Rate on the applicable Floating Rate Calculation Date plus a spread of 2.03 per cent. This spread will apply to both the Series A Shares described above and the Series B Shares and will remain unchanged over the life of the Series B Shares.

Redemption of Series B Shares

The Series B Shares are redeemable by TransAlta, at its option, in whole or in part, on March 31, 2021, and on March 31 in every fifth year thereafter by the payment of an amount in cash for each share to be redeemed equal to \$25.00 plus all accrued and unpaid dividends thereon to but excluding the date fixed for redemption (less any tax that we are required to deduct and withhold).

If we give notice to the holders of the Series B Shares of the redemption of all of the Series B Shares, the right of a holder of Series B Shares to convert such Series B Shares shall terminate and we shall not be required to give notice to the registered holders of the Series B Shares of an Annual Fixed Dividend Rate, a Floating Quarterly Dividend Rate or the conversion right of holders of Series B Shares.

Conversion of Series B Shares into Series A Shares

The holders of the Series B Shares have the right to convert all or any of their shares into cumulative redeemable fixed rate first preferred shares, Series A Shares, subject to certain conditions, on March 31, 2021, and on March 31 in every fifth year thereafter. The holders of the Series A Shares will be entitled to receive, as and when declared by the Board, fixed cumulative preferential cash dividends payable on the last day of March, June, September and December in each year, in the amount per share determined by multiplying one-quarter of the Annual Fixed Dividend Rate for such Subsequent Fixed Rate Period by \$25.00 (less any tax that we are required to deduct and withhold). The Annual Fixed Dividend Rate for the ensuing Subsequent Fixed Rate Period will be determined by TransAlta on the Fixed Rate Calculation Date (30th day prior to the first day of such Subsequent Fixed Rate Period) and will be equal to the sum of the Government of Canada Yield (yield to maturity of a Government of Canada non-callable five-year bond) on the Fixed Rate Calculation Date plus a spread of 2.03 per cent.

The Series A Shares and Series B Shares are series of shares in the same class. The conversion right entitles holders to elect periodically which of the two series they wish to hold and does not entitle holders to receive a different class or type of securities. Other than the different dividend rights and redemption rights attached thereto, the Series A Shares and Series B Shares are identical in all material respects.

On March 31, 2021, 871,871 of the Series B Shares were converted into Series A Shares on a one-for-one basis.

Voting Rights

The holders of the Series B Shares are not entitled to any voting rights or to receive notice of or to attend shareholders' meetings unless dividends on the Series B Shares are in arrears to the extent of six quarterly dividends, whether or not consecutive. Until all arrears of dividends have been paid, holders of Series B Shares will be entitled to receive notice of and to attend all shareholders' meetings at which directors are to be elected (other than separate meetings of holders of another class or series of shares) and to one vote in respect of each Series B Share held on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of the Company if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Modification

The provisions attaching to the Series B Shares as a class may be amended with the written approval of all the holders of Series B Shares outstanding or by at least two-thirds of the votes cast at a meeting of the holders of such shares duly called for the purpose and at which a quorum is present.

Series C Shares

Eleven million cumulative redeemable rate reset first preferred shares, Series C (the "Series C Shares") were issued on Nov. 30, 2011, with a coupon of 4.60 per cent, for gross proceeds of \$275 million. Certain provisions of the Series C Shares are discussed below.

Dividends on Series C Shares

The holders of Series C Shares are entitled to receive, as and when declared by the Board out of moneys of TransAlta properly applicable to the payment of dividends, fixed cumulative preferential cash dividends payable quarterly on the last day of March, June, September and December in each year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day.

For each five-year period after the Initial Fixed Rate Period (each a "Subsequent Fixed Rate Period"), the holders of Series C Shares shall be entitled to receive, as and when declared by the Board, fixed cumulative preferential cash dividends, payable quarterly on the last day of March, June, September and December in each year, in the amount per share determined by multiplying one-quarter of the Annual Fixed Dividend Rate for such Subsequent Fixed Rate Period by \$25.00 (less any tax that we are required to deduct and withhold). The Annual Fixed Dividend Rate for the ensuing Subsequent Fixed Rate Period will be determined by TransAlta on the Fixed Rate Calculation Date (30th day prior to the first day of such Subsequent Fixed Rate Period) and will be equal to the sum of the Government of Canada Yield (yield to maturity of a Government of Canada non-callable five-year bond) on the Fixed Rate Calculation Date plus a spread of 3.10 per cent. This spread will apply to both the Series C Shares and the Series D Shares described below, and will remain unchanged over the life of the Series C Shares.

Redemption of Series C Shares

The Series C Shares were redeemable by TransAlta, at its option, in whole or in part, on June 30, 2017, and will be redeemable on June 30 in every fifth year thereafter by the payment of an amount in cash for each share to be redeemed equal to \$25.00 plus all accrued and unpaid dividends thereon to but excluding the date fixed for redemption (less any tax that we are required to deduct and withhold). On June 30, 2017, none of the Series C Shares were redeemed.

If we give notice to the holders of the Series C Shares of the redemption of all of the Series C Shares, the right of a holder of Series C Shares to convert such Series C Shares shall terminate and we shall not be required to give notice to the registered holders of the Series C Shares of an Annual Fixed Dividend Rate, a Floating Quarterly Dividend Rate or the conversion right of holders of Series C Shares.

Conversion of Series C Shares into Series D Shares

The holders of the Series C Shares had the right to convert all or any of their shares into cumulative redeemable floating rate first preferred shares, Series D Shares, subject to certain conditions, on June 30, 2017, and will again have the right to convert on June 30 in every fifth year thereafter. The holders of the Series D Shares will be entitled to receive, as and when declared by the Board, quarterly floating rate cumulative preferential cash dividends payable on the last day of March, June, September, and December in each year (each such quarterly dividend period is referred to as a "Quarterly Floating Rate Period"), in the amount per share determined by multiplying the "Floating Quarterly Dividend Rate" (which means, for any Quarterly Floating Rate Period, the annual rate of interest (expressed as a percentage and rounded to the nearest one hundred-thousandth of one per cent), equal to the sum of the T-Bill Rate on the applicable date and 3.10 per cent) for such Quarterly Floating Rate Period by \$25.00 and multiplying that product by a fraction, the numerator of which is the actual number of days in such Quarterly Floating Rate Period and the denominator of which is 365 or 366, depending upon the actual number of days in the applicable year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day. The Floating Quarterly Dividend Rate will be the annual rate of interest equal to the sum of the T-Bill Rate on the applicable Floating Rate Calculation Date plus a spread of 3.10 per cent.

The Series C Shares and Series D Shares are series of shares in the same class. The conversion right entitles holders to elect periodically which of the two series they wish to hold and does not entitle holders to receive a different class or type of securities. Other than the different dividend rights and redemption rights attached thereto, the Series C Shares and Series D Shares are identical in all material respects.

On June 15, 2017, 827,628 Series C Shares were tendered for conversion into Series D Shares, which is less than the one million shares required to give effect to conversions into Series D Shares. As a result, none of the Series C Shares were converted into Series D Shares on June 30, 2017.

Voting Rights

The holders of the Series C Shares are not entitled to any voting rights or to receive notice of or to attend shareholders' meetings unless dividends on the Series C Shares are in arrears to the extent of six quarterly dividends, whether or not consecutive. Until all arrears of dividends have been paid, holders of Series C Shares will be entitled to receive notice of and to attend all shareholders' meetings at which directors are to be elected (other than separate meetings of holders of another class or series of shares) and to one vote in respect of each Series C Share held on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of the Company if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Modification

The provisions attaching to the Series C Shares as a class may be amended with the written approval of all the holders of Series C Shares outstanding or by at least two-thirds of the votes cast at a meeting of the holders of such shares duly called for the purpose and at which a quorum is present.

Series E Shares

Nine million cumulative redeemable rate reset first preferred shares (the "Series E Shares") were issued on Aug. 10, 2012, for gross proceeds of \$225 million. Certain provisions of the Series E Shares are discussed below.

Dividends on Series E Shares

The holders of Series E Shares are entitled to receive, as and when declared by the Board out of moneys of TransAlta properly applicable to the payment of dividends, fixed cumulative preferential cash dividends payable quarterly on the last day of March, June, September, and December in each year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day.

For each five-year period after the Initial Fixed Rate Period (each a "Subsequent Fixed Rate Period"), the holders of Series E Shares shall be entitled to receive, as and when declared by the Board, fixed cumulative preferential cash dividends, payable quarterly on the last day of March, June, September and December in each year, in the amount per share determined by multiplying one quarter of the Annual Fixed Dividend Rate for such Subsequent Fixed Rate Period by \$25.00 (less any tax that we are required to deduct and withhold). The Annual Fixed Dividend Rate for the ensuing Subsequent Fixed Rate Period will be determined by the Company on the Fixed Rate Calculation Date (30th day prior to the first day of such Subsequent Fixed Rate Period) and will be equal to the sum of the Government of Canada Yield (yield to maturity of a Government of Canada non-callable five-year bond) on the Fixed Rate Calculation Date plus a spread of 3.65 per cent. This spread will apply to both the Series E Shares and the Series F Shares described below, and will remain unchanged over the life of the Series E Shares.

Redemption of Series E Shares

The Series E Shares were redeemable by the Company, at its option, in whole or in part, on Sept. 30, 2017, and will be redeemable on September 30 in every fifth year thereafter by the payment of an amount of \$25.00 in cash for each share to be redeemed plus all accrued and unpaid dividends thereon to but excluding the date fixed for redemption (less any tax that we are required to deduct and withhold). On Sept. 30, 2017, none of the Class E Shares were redeemed.

If we give notice to the holders of the Series E Shares of the redemption of all of the Series E Shares, the right of a holder of Series E Shares to convert such Series E Shares shall terminate and we shall not be required to give notice to the registered holders of the Series E Shares of an Annual Fixed Dividend Rate, a Floating Quarterly Dividend Rate or the conversion right of holders of Series E Shares.

Conversion of Series E Shares into Series F Shares

The holders of the Series E Shares had the right to convert all or any of their shares into cumulative redeemable floating rate first preferred shares (the "Series F Shares"), subject to certain conditions, on Sept. 30, 2017, and will again have the right to convert on Sept. 30 in every fifth year thereafter. The holders of the Series F Shares will be entitled to receive, as and when declared by the Board, quarterly floating rate cumulative preferential cash dividends payable on the last day of March, June, September, and December in each year (each such quarterly dividend period is referred to as a "Quarterly Floating Rate Period"), in the amount per share determined by multiplying the "Floating Quarterly Dividend Rate" (which means, for any Quarterly Floating Rate Period, the annual rate of interest (expressed as a percentage and rounded to the nearest one hundred-thousandth of one per cent), equal to the sum of the T-Bill Rate on the applicable date and 3.65 per cent) for such Quarterly Floating Rate Period by \$25.00 and multiplying that product by a fraction, the numerator of which is the actual number of days in such Quarterly Floating Rate Period and the denominator of which is 365 or 366, depending upon the actual number of days in the applicable year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day. The Floating Quarterly Dividend Rate will be the annual rate of interest equal to the sum of the T-Bill Rate on the applicable Floating Rate Calculation Date plus a spread of 3.65 per cent.

The Series E Shares and Series F Shares are series of shares in the same class. The conversion right entitles holders to elect periodically which of the two series they wish to hold and does not entitle holders to receive a different class or type of securities. Other than the different dividend rights and redemption rights attached thereto, the Series E Shares and Series F Shares are identical in all material respects.

On Sept. 15, 2017, 133,969 Series E Shares were tendered for conversion into Series F Shares, which is less than the one million shares required to give effect to conversions into Series F Shares. As a result, none of the Series E Shares were converted into Series F Shares on Sept. 30, 2017.

Voting Rights

The holders of the Series E Shares are not entitled to any voting rights or to receive notice of or to attend shareholders' meetings unless dividends on the Series E Shares are in arrears to the extent of six quarterly dividends, whether or not consecutive. Until all arrears of dividends have been paid, holders of Series E Shares will be entitled to receive notice of and to attend all shareholders' meetings at which directors are to be elected (other than separate meetings of holders of another class or series of shares) and to one vote in respect of each Series E Share held on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of the Company if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Modification

The provisions attaching to the Series E Shares as a class may be amended with the written approval of all the holders of Series E Shares outstanding or by at least two-thirds of the votes cast at a meeting of the holders of such shares duly called for the purpose and at which a quorum is present.

Series G Shares

6.6 million cumulative redeemable rate reset first preferred shares, Series G Shares, were issued on Aug. 15, 2014, for gross proceeds of \$165 million. Certain provisions of the Series G Shares are discussed below.

Dividends on Series G Shares

The holders of Series G Shares are entitled to receive, as and when declared by the Board out of moneys of TransAlta properly applicable to the payment of dividends, fixed cumulative preferential cash dividends payable quarterly on the last day of March, June, September and December in each year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day.

For each five-year period after the Initial Fixed Rate Period (each a "Subsequent Fixed Rate Period"), the holders of Series G Shares shall be entitled to receive, as and when declared by the Board, fixed cumulative preferential cash dividends, payable quarterly on the last day of March, June, September and December in each year, in the amount per share determined by multiplying one quarter of the Annual Fixed Dividend Rate for such Subsequent Fixed Rate Period by \$25.00 (less any tax that we are required to deduct and withhold). The Annual Fixed Dividend Rate for the ensuing Subsequent Fixed Rate Period will be determined by the Company on the Fixed Rate Calculation Date (30th day prior to the first day of such Subsequent Fixed Rate Period) and will be equal to the sum of the Government of Canada Yield (yield to maturity of a Government of Canada non-callable five-year bond) on the Fixed Rate Calculation Date plus a spread of 3.80 per cent. This spread will apply to both the Series G Shares and the Series H Shares described below, and will remain unchanged over the life of the Series G Shares.

Redemption of Series G Shares

The Series G Shares were redeemable by the Company, at its option, in whole or in part, on Sept. 30, 2019, and will be redeemable on September 30 in every fifth year thereafter by the payment of an amount of \$25.00 in cash for each share to be redeemed plus all accrued and unpaid dividends thereon to but excluding the date fixed for redemption (less any tax that we are required to deduct and withhold).

If we give notice to the holders of the Series G Shares of the redemption of all of the Series G Shares, the right of a holder of Series G Shares to convert such Series G Shares shall terminate and we shall not be required to give notice to the registered holders of the Series G Shares of an Annual Fixed Dividend Rate, a Floating Quarterly Dividend Rate or the conversion right of holders of Series G Shares.

Conversion of Series G Shares into Series H Shares

The holders of the Series G Shares had the right to convert all or any of their shares into cumulative redeemable floating rate first preferred shares, Series H Shares, subject to certain conditions, on Sept. 30, 2019, and will again have the right to convert on September 30 in every fifth year thereafter. The holders of the Series H Shares will be entitled to receive, as and when declared by the Board, quarterly floating rate cumulative preferential cash dividends payable on the last day of March, June, September, and December in each year (each such quarterly dividend period is referred to as a "Quarterly Floating Rate Period"), in the amount per share determined by multiplying the "Floating Quarterly Dividend Rate" (which means, for any Quarterly Floating Rate Period, the annual rate of interest (expressed as a percentage and rounded to the nearest one hundred thousandth of one per cent), equal to the sum of the T-Bill Rate on the applicable date and 3.80 per cent) for such Quarterly Floating Rate Period by \$25.00 and multiplying that product by a fraction, the numerator of which is the actual number of days in such Quarterly Floating Rate Period and the denominator of which is 365 or 366, depending upon the actual number of days in the applicable year (less any tax that we are required to deduct and withhold). If any such date is not a business day, the dividend will be paid on the next succeeding business day. The Floating Quarterly Dividend Rate will be the annual rate of interest equal to the sum of the T-Bill Rate on the applicable Floating Rate Calculation Date plus a spread of 3.80 per cent.

The Series G Shares and Series H Shares are series of shares in the same class. The conversion right entitles holders to elect periodically which of the two series they wish to hold and does not entitle holders to receive a different class or type of securities. Other than the different dividend rights and redemption rights attached thereto, the Series G Shares and Series H Shares are identical in all material respects.

On Sept. 17, 2019, 140,730 Series G Shares were tendered for conversion into Series H Shares, which is less than the one million shares required to give effect to conversions into Series H Shares. As a result, none of the Series G Shares were converted into Series H Shares on Sept. 30, 2019.

Voting Rights

The holders of Series G Shares are not entitled to any voting rights or to receive notice of or to attend shareholders' meetings unless dividends on the Series G Shares are in arrears to the extent of six quarterly dividends, whether or not consecutive. Until all arrears of dividends have been paid, holders of Series G Shares will be entitled to receive notice of and to attend all shareholders' meetings at which directors are to be elected (other than separate meetings of holders of another class or series of shares) and to one vote in respect of each Series G Share held on all matters in respect of which shareholders vote, and additionally, the right of all series of first preferred shares, voting as a combined class, to elect two directors of the Company if the Board then consists of less than 16 directors, or three directors if the Board consists of 16 or more directors. Otherwise, except as required by law, the holders of first preferred shares shall not be entitled to vote or to receive notice of or attend any meeting of the shareholders of the Company.

Modification

The provisions attaching to the Series G Shares as a class may be amended with the written approval of all the holders of Series G Shares outstanding or by at least two-thirds of the votes cast at a meeting of the holders of such shares duly called for the purpose and at which a quorum is present.

Series I Shares

The Series I Shares have a perpetual term and will rank *pari passu* to all existing series of first preferred shares of the Company with respect to dividends and liquidation preferences. The Series I Shares are entitled to a 7% cumulative dividend payable quarterly in cash.

Under the Investment Agreement with Brookfield, redemption of the Series I Shares will be satisfied through the Hydro Equity Interest (as defined below), or in some cases cash, based on their redemption price. The redemption price payable is equal to the subscription price paid by Brookfield together with all accrued but unpaid dividends thereon (the "Redemption Price"). Upon the occurrence of an Optional Redemption, as defined and described below, or a Cash Acceleration Event, as defined and described below, the Company will pay the Redemption Price in cash (the "Cash Redemption Amount").

Except in the case of an Optional Redemption by the Company or a Cash Acceleration Event, as described below, the Series I Shares will be exchangeable into interests ("Hydro Equity Interest") in the equity (the "Hydro Equity") of TA Alberta Hydro LP ("Hydro Assets Owner"), a special purpose vehicle formed by the Company. At any time after Dec. 31, 2024, Brookfield will be entitled to exchange all, but not less than all, of the Series I Shares requiring the Company to redeem or exchange all of the Series I Shares held by Brookfield (minus the number of Series I Shares that have been redeemed pursuant to an Optional Redemption) (the "Exchange Right").

Prior to any Optional Redemption by the Company, the exercise of the Exchange Right or the occurrence of an Equity Acceleration Event, as defined and described below, will entitle Brookfield to receive that percentage of a Hydro Equity Interest that is equal to the aggregate Redemption Price for all Series I Shares issued to Brookfield divided by the tax-affected equity value of the Hydro Assets Owner, as further described in the Investment Agreement ("Equity Redemption Amount"). The maximum Hydro Equity Interest issuable to Brookfield upon the exercise of the Exchange Right is 49% of the total Hydro Equity. The balance of the Redemption Price will be paid by the Company in cash.

If, at the time the Exchange Right is exercised, the Equity Redemption Amount is insufficient to permit Brookfield to acquire 49% of the Hydro Equity, Brookfield has a one-time top-up option, exercisable until Dec. 31, 2028, to acquire an additional amount of Hydro Equity. As long as Brookfield holds at least 8.5% of the issued and outstanding common shares, Brookfield may purchase: (a) if the 20-day volume weighted average price ("VWAP") of the Common Shares is not less than \$14, up to an additional 10% of Hydro Equity, to a maximum interest of 49% of the Hydro Equity; or (b) if the 20-day VWAP of the common shares is not less than \$17, the additional percentage required that would bring Brookfield's ownership level up to but not exceeding 49% of the Hydro Equity. If the Exchange Right is exercised and the Equity Redemption Amount is insufficient to permit Brookfield to acquire at least 25% of the Hydro Equity, Brookfield will have an option to acquire that additional percentage of Hydro Equity that would result in Brookfield having 25% of the Hydro Equity upon payment in cash. If Brookfield exercises its top-up option, the cash amount payable by Brookfield is calculated as the same price as in the case of an exchange for the Hydro Equity Interest; however, in such a case, the price is based on the equity value of the Hydro Assets Owner without any reduction for the tax deficiency value associated with certain tax pools. Exercise of this top-up option triggers a lock-up obligation of Brookfield for a further period of 18 months following its exercise.

At any time after Dec. 31, 2028, the Company may redeem the Series I Shares and the related debentures, in whole or in part, at the Redemption Price (the "Optional Redemption") provided that the minimum proceeds to Brookfield for each such redemption (other than the final redemption) may not be less than \$100,000,000 and further provided that all Series I Shares and related debentures must be redeemed by the Company within 36 months of the date of the first Optional Redemption.

The Investment Agreement also provides for certain acceleration events (the "Acceleration Events"). In the event of bankruptcy or a breach of a certain material covenants by the Company (each, an "Equity Acceleration Event"), Brookfield will be entitled to give notice and will be entitled to the Equity Redemption Amount. If an Equity Acceleration Event occurs before Dec. 31, 2024, a true-up payment will be made by Brookfield to the Company or by the Company to Brookfield to account for the difference between \$1.95 billion and the tax-affected value of the Hydro Equity Interest calculated as of a date (to be determined by Brookfield) within the period commencing Jan. 1, 2025 and ending Dec. 31, 2027. Any difference in favour of Brookfield between the true-up value and the value of the Hydro Equity Interest issued to Brookfield is to be satisfied by delivery of additional Hydro Equity. If the Company does not obtain the requisite regulatory approvals for the exchange for Hydro Equity contemplated by the Exchange Right or the Equity Redemption Amount or a final order is made that enjoins the completion of the Exchange Right ("Cash Acceleration Event"), then Brookfield will be entitled to the Cash Redemption Amount.

Related-Party Articles Provisions

The articles of the Company contain provisions restricting the ability of the Company to enter into a "Specified Transaction" with a "Major Shareholder." A Specified Transaction requires the approval of a majority of the votes cast by holders of voting shares of the Company, as well as the approval of a majority of the votes cast by holders of such voting shares, excluding any Major Shareholder. A Major Shareholder generally means the beneficial owner of more than 20 per cent of the outstanding voting shares of the Company. The articles contain a broad definition of beneficial ownership, and in particular, a person is considered to beneficially own shares owned by its associates and affiliates, as those terms are defined in the articles. Transactions that are considered to be Specified Transactions include the following: a merger or amalgamation of the Company with a Major Shareholder; the furnishing of financial assistance by the Company to a Major Shareholder; certain sales of assets or provision of services by the Company to a Major Shareholder or vice versa; certain issuances of securities by the Company that increase the proportionate voting interest of a Major Shareholder; a reorganization or recapitalization of the Company that increases the proportionate voting interest of a Major Shareholder; and the creation of a class or series of non-voting shares of the Company that has a residual right to participate in earnings of the Company and assets of the Company upon dissolution or winding up.

Shareholder Rights Plan

The Company implemented a shareholder rights plan ("Rights Plan") pursuant to a Shareholder Rights Plan Agreement ("Rights Plan Agreement") dated as of Oct. 13, 1992, as amended and restated as of April 26, 2019, between the Company and AST Trust Company (Canada) (the successor to CST Trust Company). The Shareholder Rights Plan was last confirmed at our annual and special meeting of shareholders on April 26, 2019, and will expire at the close of business on the date of our 2022 Annual Meeting of Shareholders, unless ratified and extended by a further vote of the shareholders. The Rights Plan Agreement was assigned by AST Trust Company (Canada) to Computershare Trust Company of Canada effective Nov. 22, 2019. For further particulars, reference should be made to the Rights Plan Agreement, as amended and restated. A copy of the Rights Plan Agreement may be obtained by contacting the Corporate Secretary, TransAlta Corporation, 110 - 12th Avenue S.W., Calgary, Alberta T2R 0G7; telephone: (403) 267-7110; or by email: corporate_secretary@transalta.com. A copy of the Rights Plan Agreement is also available electronically on SEDAR under our profile, which can be accessed at www.sedar.com, and on the SEC's EDGAR system at www.sec.gov.

Credit Facilities

In 2021, we renewed our syndicated credit agreement giving us access to a \$1.25 billion committed credit facility and converted the facility into a Sustainability Linked Loan. The agreement is fully committed, expiring in 2025. The credit facility is subject to a number of customary covenants and restrictions in order to maintain access to the funding commitments. The amendments to the syndicated credit facility in 2021 aligned the cost of borrowing to TransAlta's GHG emission reductions and gender diversity targets, which are part of the Company's overall ESG strategy, and will result in a cumulative pricing adjustment to the borrowing costs on the syndicated credit facilities as well as a corresponding adjustment to the standby fee. This credit facility has been made available for general corporate purposes including financing ongoing working capital requirements, providing financing for construction capital, growth opportunities and for repaying outstanding borrowings.

On July 24, 2017, TransAlta Renewables entered into a syndicated credit agreement giving it access to a \$500 million committed credit facility. The credit agreement is fully committed, and in the first quarter of 2019 was amended from \$500 million to \$700 million. In 2021, the credit agreement was renewed and extended to 2025. The credit facility is subject to a number of customary covenants and restrictions in order to maintain access to the funding commitments. See Note 24 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "*Documents Incorporated by Reference*" section of this AIF.

Long-Term Debt

The long-term debt of the Company consists of \$251 million face value of debentures outstanding, which bear interest at fixed rates ranging from 6.9 per cent to 7.3 per cent and have maturity dates ranging from 2029 to 2030. In addition, we have US\$700 million face value in senior notes outstanding that bear interest at fixed rates ranging from 4.5 per cent to 6.5 per cent and have maturity dates ranging from 2022 to 2040. See Note 24 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "*Documents Incorporated by Reference*" section of this AIF.

Exchangeable Securities

On March 22, 2019, the Company entered into a definitive Investment Agreement, whereby Brookfield agreed to invest \$750 million in the Company through the purchase of Exchangeable Securities, which are exchangeable into an equity ownership interest in TransAlta's Alberta hydro assets in the future at a value based on a multiple of the hydro assets' future-adjusted EBITDA, as described above. The Exchangeable Securities were issued in two tranches, with the first having occurred on May 1, 2019, consisting of \$350 million of 7 per cent unsecured subordinated debentures due May 1, 2039, and on Oct. 30, 2020, the second and final close consisting of \$400 million of a new series of redeemable, retractable first preferred shares. The Investment Agreement, together with an Exchange and Option Agreement ("E&O Agreement") entered into by the parties concurrently with the closing of the first tranche of the investment, gives Brookfield the Exchange Right of the outstanding exchangeable securities into up to a maximum 49 per cent equity ownership interest in TransAlta's Alberta hydro assets after Dec. 31, 2024. The Investment Agreement and the E&O Agreement also give TransAlta the right to redeem the Exchangeable Securities at any time after Dec. 31, 2028, subject to certain terms and conditions, if Brookfield chooses not to exercise its Option to Exchange.

Investment Agreement and E&O Agreement

The following description of certain provisions of the Investment Agreement and the E&O is a summary only, is not comprehensive and is qualified in its entirety by reference to the full text of each of the Investment Agreement and E&O Agreement, copies of which can be found on SEDAR under our profile at www.sedar.com and on EDGAR under our profile at www.sec.gov.

In connection with the Investment Agreement, Brookfield has committed to purchase common shares of the Company on the open market over a period of 24 months following the Initial Funding Date, being May 1, 2019, to its total share ownership to not less than nine per cent, subject to certain exceptions and provided that the Brookfield is not obliged to purchase common shares at a price greater than \$10 per share. This increase in shareholdings further aligns the interests of Brookfield and TransAlta. Pursuant to the Investment Agreement, Brookfield is entitled to nominate two individuals on its slate of directors for election at the Company's annual meetings of shareholders.

The Investment Agreement contains certain lock-up provisions that restrict Brookfield or its affiliates' ability to transfer their TransAlta common shares during a period that commenced on May 1, 2019, and terminates on Dec. 31, 2023 ("Lock-Up"). The Lock-Up contains customary exceptions, including an exception for transfers of common shares by investment funds managed by or affiliated with Brookfield undertaken in accordance with the investment funds' fund requirements.

The Investment Agreement contemplates that the Exchangeable Securities will be a long-term investment and therefore may not be transferred except by Brookfield to one of its affiliates. Brookfield has agreed to be the sole representative of all of its permitted transferees for the purpose of the Investment Agreement.

The Investment Agreement includes certain standstill commitments by Brookfield ("Standstill"), with customary exceptions, which will be in effect for three years starting from May 1, 2019 ("Standstill Period"). Among other things, the Standstill prohibits Brookfield from acquiring an ownership interest in the Company above 19.9 per cent of the common shares. During the Standstill Period, Brookfield has also agreed that it will: (a) vote in favour of each director nominated by the Board; (b) vote against any shareholder nomination for directors that is not approved by the Board; (c) vote against any proposal or resolution to remove any Board member; and (d) vote in accordance with any recommendations by the Board on all other proposals. Certain Standstill provisions extend beyond the Standstill Period so long as Brookfield has nominees on the Board.

In accordance with the terms of the Investment Agreement, TransAlta has formed a hydro assets Operating Committee consisting of two representatives from Brookfield and two representatives from TransAlta to provide advice and recommendations in connection with the operation, and maximizing the value, of the Alberta hydro assets. In connection with this, the Company has committed to pay Brookfield an annual hydro fee of \$1.5 million for six years commencing on May 1, 2019.

Registration Rights Agreement

The following description of certain provisions of the registration rights agreement entered into between Eagle Hydro II (an affiliate of Brookfield) and the Company on May 1, 2019 ("Registration Rights Agreement") is a summary only, is not comprehensive and is qualified in its entirety by reference to the full text of the Registration Rights Agreement, a copy of which can be found on SEDAR under our profile at www.sedar.com.

The Registration Rights Agreement provides that Eagle Hydro II and any affiliate of Brookfield that becomes party to the Registration Rights Agreement (each a "Holder") may, at any time and from time to time, make a written request ("Demand Registration") to the Company to file a Prospectus Supplement with the securities commissions or similar authorities in each of the provinces of Canada in respect of the distribution of all or part of the Common Shares then held by the Holder ("Registrable Securities"), subject to certain restrictions set forth in the Registration Rights Agreement. Upon receipt by the Company of a Demand Registration, the Company will promptly file a Prospectus Supplement in order to permit the offer and sale or other disposition or distribution in Canada of all or any portion of the Registrable Securities held, directly or indirectly, by the Holder (a "Demand Offering"). The Company will not be obligated to effect: (a) more than three Demand Offerings in total during the term of the Registration Rights Agreement; or (b) a Demand Offering if the Registrable Securities have an aggregate market price of less than \$50 million.

If at any time the Company proposes to file a prospectus supplement with respect to the distribution of any TransAlta common shares to the public, then the Company will give notice of the proposed distribution to each Holder not less than five business days in advance of the anticipated filing date of the prospectus supplement (or, in the case of a "bought deal" or another public offering that is not expected to include a road show, such notice as is practicable under the circumstances), which notice will offer each Holder the opportunity to qualify for distribution such number of Registrable Securities as such Holder may request. The Company will use commercially reasonable efforts to include in such Prospectus Supplement such Registrable Securities (a "Piggy Back Offering"), unless the Company's managing underwriter or underwriters determines, in good faith, that including such Registrable Securities in the distribution would, in their opinion, adversely affect the Company's distribution or sales price of the securities being offered by the Company.

The Demand Offerings and Piggy Back Offerings are subject to various conditions and limitations. The Company is entitled to defer any Demand Offering in certain circumstances, including during a regular annual and quarterly blackout period in respect of the release of its financial results.

The Registration Rights Agreement includes provisions providing for each of the Company and the Holders to indemnify each other for losses or claims caused by the applicable party's inclusion of a misrepresentation in disclosure included in any prospectus and for breaches of applicable securities laws.

In the case of a prospectus supplement filed in connection with a Demand Offering or Piggy Back Offering, the Company will pay all applicable fees and expenses incident to the Company's performance of, or compliance with, the terms of such offering, provided that in the event any Registrable Securities are freely tradeable at the time that the Company receives the offering request, the Company and the Holders will be jointly and severally responsible for the proportionate share of registration fees and expenses of any Holders based on the total offering price of the freely tradeable securities sold by the Holders to the total offering price of all the Securities sold by the Company in such offering. The Company and the Holders will be jointly and severally responsible for paying all selling expenses (including fees or commissions payable to an underwriter, investment banker, manager or agent and any transfer taxes attributable to the sale of Registrable Securities) with respect to Registrable Securities sold by the Holders and the Company will pay all selling expenses with respect to any Securities sold for the account of the Company. The Company and the Holders will be solely responsible on a joint and several basis for all out-of-pocket expenses incurred by any Holders in connection with a Demand Offering or Piggy Back Offering.

If a Holder ceases to be affiliated with the Company, the Holder will cease to have any rights or obligations under the Registration Rights Agreement. The Registration Rights Agreement will terminate when Brookfield together with its affiliates beneficially own in the aggregate less than three per cent of the issued and outstanding common shares.

Additional details about the Brookfield Investment can be found in our material change report dated March 26, 2019, available electronically on SEDAR at www.sedar.com and on EDGAR at www.sec.gov. Copies of the Investment Agreement, together with copies of the exchangeable debenture, the E&O Agreement and the Registration Rights Agreement are also available on SEDAR and on EDGAR. Shareholders are encouraged to read these documents in their entirety.

Non-Recourse Debt

The Company has non-recourse debt outstanding in an amount equal to approximately \$1,908 million face value, which is represented by bonds and debentures that bear interest at rates ranging from 2.95 per cent to 4.51 per cent and have maturity dates ranging from 2028 to 2042. See Note 24 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "*Documents Incorporated by Reference*" section of this AIF.

Tax Equity

In November 2021, the Company assumed US\$16 million in tax equity financing as part of the acquisition of the North Carolina Solar portfolio.

In December 2019, coinciding with Big Level and Antrim wind projects achieving commercial operation, TransAlta received funding of approximately US\$126 million from a tax equity partner. In December 2020, coinciding with the commercial operation of the Skookumchuck wind facility, a total of approximately US\$121 million was raised from a tax equity partner in respect of the Skookumchuck project entity, which had the effect of lowering the cost of TransAlta's 49% investment in the Skookumchuck wind facility from approximately US\$125 million to approximately US\$66 million.

The Company also assumed US\$24 million in tax equity financing as part of the acquisition of the Lakeswind wind facility in 2015. Under International Financial Reporting Standards, tax equity financings are included as debt in our consolidated financial statements. See Note 24 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "*Documents Incorporated by Reference*" section of this AIF.

Restrictions on Debt

The syndicated credit facilities include a number of customary covenants and restrictions in order to maintain access to the funding commitments. Non-recourse 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 are able to be distributed by the subsidiary entities to their respective parent entity. These conditions include meeting a debt service coverage ratio prior to distribution. The incident at Kent Hills has resulted in Kent Hills Wind LP currently being unable to make distributions.

As a result of the determination that all 50 foundations at Kent Hills 1 and Kent Hills 2 require replacement, as well as certain resulting amendments to applicable insurance policies, Kent Hills Wind LP has provided notice to the KH Trustee for the approximately \$221 million outstanding non-recourse KH Bonds that events of default may have occurred under the trust indenture governing the terms of 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 KH Trustee to declare the principal and interest on the KH Bonds and all other amounts due thereunder, together with any make-whole amount due thereunder, to be immediately due and payable and to direct the KH Trustee to exercise rights against certain collateral. Kent Hills Wind LP is in discussions with the KH 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 Kent Hills Wind LP expects that it will reach agreement with the KH 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. See "*General Development of the Business – Three-Year History – Generation and Business Development*" section of this AIF.

Credit Ratings

Credit ratings provide information relating to our financing costs, liquidity and operations and affect our ability to obtain short-term and long-term financing and/or the cost of such financing. Maintaining a strong balance sheet also allows our commercial team to contract the Company's portfolio with a variety of counterparties on terms and prices that are favourable to our financial results and provides us with better access to capital markets through commodity and credit cycles. We remain focused on maintaining a strong balance sheet and financial position with strong cash flow coverage ratios in order to access sufficient financial capital. Our credit ratings as of Dec. 31, 2021, are as follows:

	DBRS	Moody's	S&P
Issuer Rating	BBB (low)	Not applicable	BB+
Corporate Family Rating	Not applicable	Ba1	Not applicable
Preferred Shares	Pfd-3 (low) ⁽¹⁾	Not applicable	P-4(High)
Unsecured Debt/MTNs	BBB (low)	Ba1/LGD4	BB+
Rating Outlook	Stable	Stable	Stable

Note:

(1) The outstanding Preferred Shares all have the same rating.

In 2021, Moody's reaffirmed its Corporate Family Rating of Ba1 and maintained its rating outlook at stable. During 2021, DBRS Limited confirmed the Company's Issuer Rating and Unsecured Debt/Medium-Term Notes rating of BBB (low), and the Company's Preferred Shares rating of Pfd-3 (low), all with stable trends. During 2021, S&P Global Ratings reaffirmed the Company's Issuer Credit Rating and Senior Unsecured Debt rating of BB+ with a stable outlook.

DBRS

DBRS Corporate rating analysis begins with an evaluation of the fundamental creditworthiness of the issuer, which is reflected in an "issuer rating." Issuer ratings address the overall credit strength of the issuer. Unlike ratings on individual securities or classes of securities, issuer ratings are based on the entity itself and do not include consideration for security or ranking. Ratings that apply to actual securities (secured or unsecured) may be higher, lower or equal to the issuer rating for a given entity. As of Dec. 31, 2021, our issuer rating was BBB (low) (stable) from DBRS. A BBB rating is the fourth highest out of 10 categories.

The DBRS preferred share rating scale is used in the Canadian securities market and is meant to give an indication of the risk that a borrower will not fulfil its full obligations in a timely manner, with respect to both dividend and principal commitments. Every DBRS rating is based on quantitative and qualitative considerations relevant to the borrowing entity. Each rating category is denoted by the subcategories "high" and "low." The absence of either a "high" or "low" designation indicates the rating is in the middle of the category. Preferred shares rated Pfd-3 are of adequate credit quality. While protection of dividends and principal is still considered acceptable, the issuing entity is more susceptible to adverse changes in financial and economic conditions, and there may be other adverse conditions present that detract from debt protection. Each of the Series A Shares, Series B Shares, Series C Shares, Series E Shares and Series G Shares have been rated Pfd-3 (low) (stable) by DBRS. The Pfd-3 rating is the third highest out of six categories.

The DBRS long-term rating scale provides an opinion on the risk of default, which is the risk that an issuer will fail to satisfy its financial obligations in accordance with the terms under which an obligation has been issued. Ratings are based on quantitative and qualitative considerations relevant to the issuer, and the relative ranking of claims. All rating categories other than AAA and D also contain subcategories "high" and "low". The absence of either a "high" or "low" designation indicates the rating is in the middle of the category. Debt securities rated BBB are of adequate credit quality. The capacity for the payment of financial obligations is considered acceptable, but may be vulnerable to future events.

Moody's

Moody's Corporate Family Ratings (CFRs) are long-term ratings that reflect the relative likelihood of a default on a corporate family's debt and debt-like obligations and the expected financial loss suffered in the event of default. A CFR is assigned to a corporate family as if it had a single class of debt and a single consolidated legal entity structure. A CFR does not reference an obligation or class of debt and thus does not reflect priority of claim. As at Dec. 31, 2021, our Corporate Family Rating was Ba1 with a stable outlook. Obligations rated Ba are judged to be speculative and are subject to substantial credit risk. Moody's appends the numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. The Ba rating category is the fifth-highest rating out of nine rating categories.

Moody's long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default. As of Dec. 31, 2021, our senior unsecured long-term debt is rated Ba1 / LGD4 by Moody's. The Ba rating category is the fifth-highest rating out of nine rating categories. Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.

Moody's Loss Given Default (LGD) assessments are opinions about expected loss given default expressed as a per cent of principal and accrued interest at the resolution of the default. One of the six LGD assessments are assigned to individual loan, bond, and preferred stock issues. The firm-wide or enterprise expected LGD rate generally approximates a weighted average of the expected LGD rates on the firm's liabilities (excluding preferred stock), where the weights equal each obligation's expected share of the total liabilities at default. As of Dec. 31, 2021, our LGD assessment from Moody's was LGD4, which represents a loss range of greater than or equal to 50 per cent and less than 70 per cent. LGD4 is the fourth-highest assessment category out six categories.

S&P Global Ratings

The S&P Global Ratings issuer credit rating is a forward-looking opinion about an obligor's overall creditworthiness. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. As at Dec. 31, 2021, our issuer credit rating was BB+ with a stable outlook with S&P. This is the fifth highest of 11 ratings categories. Although less vulnerable than other speculative issuers, an obligor rated BB is regarded as having a degree of speculative characteristics. When faced with uncertainties or challenges in the business, financial, or economic environment, entities rated BB may in turn face challenges meeting their financial commitments. The ratings from AA to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

The S&P Global Ratings issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium-term note programs and commercial paper programs). It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The opinion reflects S&P Global Ratings view of the obligor's capacity and willingness to meet its financial commitments as they come due, and may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of default. This is the fifth highest of 11 ratings categories. The ratings from AA to CCC may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

The S&P Global Ratings Canadian preferred share rating scale serves issuers, investors, and intermediaries in the Canadian financial markets by expressing preferred share ratings (determined in accordance with global rating criteria) in terms of rating symbols that have been actively used in the Canadian market over a number of years. The S&P Global Ratings preferred share rating on the Canadian scale is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific preferred share obligation issued in the Canadian market, relative to preferred shares issued by other issuers in the Canadian market. There is a direct correspondence between the specific ratings assigned on the Canadian preferred share scale and the various rating levels on the global debt rating scale of S&P Global Ratings. Each of our outstanding Preferred Shares Series has been rated P-4 (High) by S&P. The P-4 (High) rating is the fourth highest of eight categories. A P-4 (High) rating corresponds to a B+ rating on the global preferred share rating scale. Obligors rated BB, B, CCC, and CC are regarded as having significant speculative characteristics, of which BB indicates the least degree of speculation and CC the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions. An obligor rated B is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions which could lead to the obligor's inadequate capacity to meet its financial commitments.

We are focused on maintaining a strong financial position and cash flow coverage ratios to support our business. Our available credit facilities, funds from operations and debt financing options provide us with financial flexibility.

Note Regarding Credit Ratings

Credit ratings are intended to provide investors with an independent measure of credit quality of an issue of securities. The credit ratings accorded to our outstanding securities by DBRS, Moody's and the S&P Global Ratings as applicable, are not recommendations to purchase, hold or sell such securities. There is no assurance that the ratings will remain in effect for any given period or that a rating will not be revised or withdrawn entirely by DBRS, Moody's or the S&P Global Ratings in the future if, in its judgement, circumstances so warrant.

We have paid fees for rating services to DBRS, Moody's, and the S&P Global Ratings during the last two years. We have also paid fees to the S&P, DBRS and Kroll Bond Rating Agency for certain other services provided to the Company during the last two years.

Dividends

Common Shares

Dividends on our common shares are paid at the discretion of the Board. In determining the payment and level of future dividends, the Board considers our financial performance, results of operations, cash flow and needs, with respect to financing our ongoing operations and growth, balanced against returning capital to shareholders. The Board continues to focus on building sustainable earnings and cash flow growth.

TransAlta has declared and paid the following dividends per share on its outstanding common shares for the past three years:

Period	Dividend per Common Share
2019 First Quarter	\$0.04
Second Quarter	\$0.04
Third Quarter	\$0.04
Fourth Quarter	\$0.04
2020 First Quarter	\$0.04
Second Quarter	\$0.0425
Third Quarter	\$0.0425
Fourth Quarter	\$0.0425
2021 First Quarter	\$0.0450
Second Quarter	\$0.0450
Third Quarter	\$0.0450
Fourth Quarter	\$0.05
2022 First Quarter ⁽¹⁾	\$0.05

Note:

(1) Dividends have been declared but not yet paid.

Preferred Shares

TransAlta has declared and paid the following dividends per share on its outstanding preferred shares for the past three years:

Series A Shares

Period	Dividend per Series A Share
2019 First Quarter	\$0.16931
Second Quarter	\$0.16931
Third Quarter	\$0.16931
Fourth Quarter	\$0.16931
2020 First Quarter	\$0.16931
Second Quarter	\$0.16931
Third Quarter	\$0.16931
Fourth Quarter	\$0.16931
2021 First Quarter	\$0.16931
Second Quarter	\$0.17981
Third Quarter	\$0.17981
Fourth Quarter	\$0.17981
2022 First Quarter ⁽¹⁾	\$0.17981

Note:

(1) Dividends have been declared but not yet paid.

Series B Shares

Period	Dividend per Series B Share
2019 First Quarter	\$0.17889
Second Quarter	\$0.19951
Third Quarter	\$0.20984
Fourth Quarter	\$0.22301
2020 First Quarter	\$0.22949
Second Quarter	\$0.22800
Third Quarter	\$0.14359
Fourth Quarter	\$0.13693
2021 First Quarter	\$0.13186
Second Quarter	\$0.13108
Third Quarter	\$0.13479
Fourth Quarter	\$0.1397
2022 First Quarter ⁽¹⁾	\$0.13309

Note:

(1) Dividends have been declared but not yet paid.

Series C Shares

Period	Dividend per Series C Share
2019 First Quarter	\$0.25169
Second Quarter	\$0.25169
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169
2020 First Quarter	\$0.25169
Second Quarter	\$0.25169
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169
2021 First Quarter	\$0.25169
Second Quarter	\$0.25169
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169
2022 First Quarter ⁽¹⁾	\$0.25169

Note:

(1) Dividends have been declared but not yet paid.

Series E Shares

Period	Dividend per Series E Share
2019 First Quarter	\$0.32463
Second Quarter	\$0.32463
Third Quarter	\$0.32463
Fourth Quarter	\$0.32463
2020 First Quarter	\$0.32463
Second Quarter	\$0.32463
Third Quarter	\$0.32463
Fourth Quarter	\$0.32463
2021 First Quarter	\$0.32463
Second Quarter	\$0.32463
Third Quarter	\$0.32463
Fourth Quarter	\$0.32463
2022 First Quarter ⁽¹⁾	\$0.32463

Note:

(1) Dividends have been declared but not yet paid.

Series G Shares

Period	Dividend per Series G Share
2019 First Quarter	\$0.33125
Second Quarter	\$0.33125
Third Quarter	\$0.33125
Fourth Quarter	\$0.31175
2020 First Quarter	\$0.31175
Second Quarter	\$0.31175
Third Quarter	\$0.31175
Fourth Quarter	\$0.31175
2021 First Quarter	\$0.31175
Second Quarter	\$0.31175
Third Quarter	\$0.31175
Fourth Quarter	\$0.31175
2022 First Quarter ⁽¹⁾	\$0.31175

Note:

(1) Dividends have been declared but not yet paid.

Series I Shares

TransAlta also declared an aggregate cash dividend of approximately \$7 million in respect of the issued and outstanding Series I Shares for the period starting from and including Sept. 30, 2021, up to but excluding Dec. 31, 2021, which will be paid on Feb. 28, 2022.

Market for Securities

Common Shares

Our common shares are listed on the TSX under the symbol "TA" and the New York Stock Exchange ("NYSE") under the symbol "TAC". The following table sets forth the reported high and low trading prices and trading volumes of our common shares as reported by the TSX for the periods indicated:

Month	Price (\$)		Volume
	High	Low	
<u>2021</u>			
January	11.57	9.57	19,096,016
February	12.34	10.97	15,152,046
March	11.95	10.10	19,816,302
April	12.51	11.92	6,861,255
May	12.21	10.82	12,430,428
June	12.61	11.07	12,641,889
July	13.05	11.96	10,659,547
August	13.50	12.22	11,298,887
September	13.39	12.24	11,917,443
October	14.54	13.24	10,928,970
November	14.61	12.70	9,157,007
December	14.44	13.05	8,163,601
<u>2022</u>			
January	14.75	12.63	15,550,257
February 1-23	14.06	12.99	8,752,336

Preferred Shares

Series A Shares

Our Series A Shares are listed on the TSX under the symbol "TA.PR.D".

Date of Issuance	Number of Securities ⁽²⁾	Issue Price per Security	Description of Transaction
Dec. 10, 2010 ⁽¹⁾	12,000,000 Series A Shares	\$25.00	Public Offering
March 31, 2021 ⁽²⁾	871,871 Series A Shares	N/A	Conversion of Series B Shares

Notes:

(1) Series A Shares were issued pursuant to a public offering by way of a prospectus supplement dated Dec. 3, 2010, to a short form base shelf prospectus dated Oct. 19, 2009.

(2) On March 31, 2016, 1,824,620 of the Series A Shares were converted into Series B Shares on a one-for-one basis. On March 31, 2021, 1,417,338 of the Series A Shares were converted into Series B Shares on a one-for-one basis, and 871,871 Series B Shares were converted to Series A Shares on a one-for-one basis.

Month	Price (\$)		Volume
	High	Low	
2021			
January	12.40	10.47	316,112
February	13.39	12.00	327,177
March	13.50	12.96	534,183
April	13.65	12.99	123,610
May	14.50	13.60	196,059
June	14.75	13.68	354,964
July	14.75	13.90	179,870
August	14.70	14.27	179,083
September	14.68	13.85	216,564
October	15.80	14.47	544,268
November	16.69	15.74	101,549
December	16.29	15.30	114,197
2022			
January	17.44	15.99	190,737
February 1-23	17.15	15.90	34,309

Series B Shares

Our Series B Shares are listed on the TSX under the symbol "TA.PR.E".

Date of Issuance	Number of Securities	Issue Price per Security	Description of Transaction
March 31, 2016 ⁽¹⁾	1,824,620 Series B Shares	N/A	Conversion of Series A Shares
March 31, 2021 ⁽²⁾	1,417,338 Series B Shares	N/A	Conversion of Series A Shares

Notes:

(1) On March 31, 2016, 1,824,620 of the Series A Shares were converted into Series B Shares on a one-for-one basis.

(2) On March 31, 2021, 1,417,338 of the Series A Shares were converted into Series B Shares on a one-for-one basis. Also on March 1, 2021, 871,871 of the Series B Shares were converted into Series A Shares on a one-for-one basis.

Month	Price (\$)		Volume
	High	Low	
2021			
January	12.35	10.27	82,249
February	13.30	11.82	74,012
March	13.54	12.12	42,472
April	13.10	12.35	38,338
May	13.78	12.61	17,350
June	15.00	13.41	44,450
July	14.82	13.00	9,100
August	14.36	12.02	5,600
September	13.88	13.51	38,200
October	15.50	13.61	36,355
November	16.60	15.15	24,018
December	15.75	14.70	42,200
2022			
January	17.00	15.35	24,050
February 1-23	16.89	16.00	9,382

Series C Shares

Our Series C Shares are listed on the TSX under the symbol "TA.PR.F".

Date of Issuance	Number of Securities	Issue Price per Security	Description of Transaction
Nov. 30, 2011 ⁽¹⁾	11,000,000 Series C Shares	\$25.00	Public Offering

Note:

(1) Series C Shares were issued pursuant to a public offering by way of a prospectus supplement dated Nov. 23, 2011, to a short form base shelf prospectus dated Nov. 15, 2011.

Month	Price (\$)		Volume
	High	Low	
2021			
January	16.01	14.89	272,060
February	17.10	15.66	174,101
March	17.31	16.59	278,845
April	17.73	17.04	87,821
May	18.70	17.40	106,175
June	19.16	18.25	154,586
July	19.10	18.15	53,097
August	19.08	18.46	285,674
September	18.92	18.50	867,520
October	20.80	18.64	993,455
November	21.05	20.22	227,252
December	20.27	19.88	93,313
2022			
January	21.45	20.12	109,454
February 1-23	21.54	21.02	84,516

Series E Shares

Our Series E Shares are listed on the TSX under the symbol "TA.PR.H".

Date of Issuance	Number of Securities	Issue Price per Security	Description of Transaction
Aug. 10, 2012 ⁽¹⁾	9,000,000 Series E Shares	\$25.00	Public Offering

Note:

(1) Series E Shares were issued pursuant to a public offering by way of a prospectus supplement dated Aug. 3, 2012, to a short form base shelf prospectus dated Nov. 15, 2011.

Month	Price (\$)		Volume
	High	Low	
2021			
January	18.93	17.88	339,587
February	20.40	18.34	285,496
March	20.34	19.27	218,350
April	20.14	19.80	127,084
May	21.38	20.05	261,196
June	22.18	21.27	254,987
July	22.18	21.27	254,987
August	22.84	21.78	836,903
September	22.53	21.76	235,276
October	23.64	22.40	338,264
November	24.00	23.25	97,870
December	23.30	22.24	124,844
2022			
January	24.13	22.56	147,605
February 1-23	24.05	23.61	100,201

Series G Shares

Our Series G Shares are listed on the TSX under the symbol "TA.PR.J".

Date of Issuance	Number of Securities	Issue Price per Security	Description of Transaction
Aug. 15, 2014 ⁽¹⁾	6,600,000 Series G Shares	\$25.00	Public Offering

Note:

(1) Series G Shares were issued pursuant to a public offering by way of a prospectus supplement dated Aug. 8, 2014, to a short form base shelf prospectus dated Dec. 9, 2013.

Month	Price (\$)		Volume
	High	Low	
2021			
January	20.00	18.85	101,974
February	21.20	19.36	164,127
March	21.00	20.22	127,368
April	21.11	20.37	137,229
May	22.50	20.65	124,017
June	24.10	21.77	182,192
July	23.90	23.02	211,632
August	23.95	23.10	82,511
September	23.99	23.25	170,936
October	24.00	23.54	167,275
November	24.41	23.70	102,111
December	24.24	23.55	52,076
2022			
January	24.67	23.63	103,304
February 1-23	24.39	23.96	38,348

Series I Shares

On Oct. 30, 2020, the Company issued 400,000 redeemable first preferred shares, Series I ("Series I Shares"), at a price of \$1,000 per Series I Share, for aggregate proceeds of \$400 million. The Series I Shares were issued to Brookfield under the Investment Agreement and are not listed or quoted on a marketplace.

Directors and Officers

The name, province or state and country of residence of each of our directors as at February 23, 2022, their respective position and office and their respective principal occupation during the five preceding years, are set out below. The year in which each director was appointed to serve on the Board is also set out below. Each director is appointed to serve until the next annual meeting of TransAlta or until his or her successor is elected or appointed.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Rona H. Ambrose Alberta, Canada	2017	The Honourable Rona Ambrose is Chair of the Governance, Safety and Sustainability Committee. Ms. Ambrose is the Deputy Chairwoman of TD Securities. She was the former Leader of Canada's Official Opposition in the House of Commons and former leader of the Conservative Party of Canada. As a key member of the federal cabinet for a decade, she solved problems as a minister of the Crown across nine government departments, including serving as Vice Chair of the Treasury Board for several years and Chair of the cabinet committee for public safety, justice and Aboriginal issues. As the former environment minister responsible for the GHG regulatory regime in place across several industrial sectors, she understands the challenges facing the fossil fuel industry. Ms. Ambrose was personally responsible for the development of several federal policies, ranging from industrial strategies in military procurement to health innovation to improvements to sexual assault laws. She is a passionate advocate for women in Canada and around the world and led the global movement to create the "International Day of the Girl" at the United Nations. She was also responsible for ensuring that Aboriginal women in Canada were granted equal matrimonial rights. She successfully fought for the creation of a Canadian refugee program to bring Yazidi women and girls who have been sexually enslaved by ISIS to safety in Canada. She is a Global Fellow at the Wilson Centre Canada Institute in Washington, DC, serves on the advisory board of the Canadian Global Affairs Institute and is a director of Coril Holdings Ltd. and Andlauer Healthcare Group. She has a Bachelor of Arts from the University of Victoria and a Master of Arts from the University of Alberta. She is also a graduate of the Harvard Kennedy School of Government Senior Leaders Program. Ms. Ambrose has an extensive track record of strong leadership acquired through a wide range of experience at the most senior levels of the Canadian government.
John P. Dielwart Alberta, Canada	2014	Mr. Dielwart is the Chair of the Board. Mr. Dielwart was formerly Chief Executive Officer of ARC Resources Ltd., which owns and operates oil and gas properties in Western Canada. He oversaw the growth of ARC Resources Ltd. from start up in 1996 to a company with a total capitalization of approximately \$10 billion at the time of his retirement. After his retirement from ARC Resources Ltd. on Jan. 1, 2013, Mr. Dielwart re-joined ARC Financial Corp. as Vice-Chairman and Partner. ARC Financial is Canada's leading energy-focused private equity manager. In 2020, Mr. Dielwart resigned from the board of ARC Financial but remains as a partner and member of ARC Financial's Investment Committee, and currently represents ARC Financial on the board of Aspenleaf Energy Limited. Mr. Dielwart has a Bachelor of Science with distinction (civil engineering) from the University of Calgary. He is a member of the Association of Professional Engineers and Geoscientists of Alberta and is a past-Chairman of the Board of Governors of the Canadian Association of Petroleum Producers. In 2015, Mr. Dielwart was inducted into the Calgary Business Hall of Fame and in 2018 he received the Oil and Gas Council's Canadian Lifetime Achievement Award. Mr. Dielwart provides the Company with a wealth of experience in leadership, finance and entrepreneurship along with a strong understanding of the commodity markets in which we operate, specifically the oil and gas markets.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Alan J. Fohrer California, US	2013	Mr. Fohrer is the former Chairman and Chief Executive Officer of Southern California Edison Company ("SCEC"), a subsidiary of Edison International one of the largest electric utilities in the United States. He was elected Chief Executive Officer in 2002 and Chairman in 2007. In 2000, Mr. Fohrer was elected as President and Chief Executive Officer of Edison Mission Energy ("EME"), a subsidiary of Edison that owns and operates independent power facilities. During his tenure at EME, Mr. Fohrer restructured a number of international projects, which enhanced the value of the assets sold in subsequent years. Mr. Fohrer also served as Executive Vice-President and Chief Financial Officer of both Edison and SCEC from 1995 to 1999. After 37 years with Edison, Mr. Fohrer retired in Dec. 2010. Mr. Fohrer currently sits on the boards of PNM Resources, Inc., a publicly held energy holding company, and Blue Shield of California, a non-profit health insurance provider. He is also a member of the Viterbi School of Engineering Board of Councilors for the University of Southern California and Chair of the California Science Center Foundation. Mr. Fohrer has served on boards of directors of the Institute of Nuclear Power Operations, the California Chamber of Commerce, Duratek, Inc., Osmose Utilities Services, Inc., MWH, Inc. and Synagro, a private waste management company. Mr. Fohrer holds a Master of Science in civil engineering from the University of Southern California, Los Angeles, as well as a Master of Business Administration from California State University in Los Angeles. Mr. Fohrer brings to the Company experience in accounting, finance and the power industry from both a regulated and deregulated market perspective.
Laura Folse Texas, US	2021	Ms. Folse is the former CEO of BP Wind Energy, North America, where she led a business with over 500 employees and contractors and that consisted of 14 wind farms across 8 states with an operating capacity of over 2.5 gigawatts. Prior to her role as CEO of BP Wind Energy, North America, she served at BP p.l.c. as Executive VP, Science, Technology, Environment and Regulatory Affairs, in which she led the operational, scientific and technological programs within the multi-billion dollar cleanup and restoration effort in response to the 2010 BP Macondo well explosion off the coast of Louisiana. At its peak, the clean-up project team that she led consisted of over 45,000 people working across five US Gulf and Mexico states. She successfully negotiated with federal, state, and local government officials to implement and conclude the offshore and onshore clean-up efforts. Prior thereto, she held numerous leadership roles with increasing responsibility and complexity within BP p.l.c. Ms. Folse has a Master of Management, Business from Stanford University, a Master of Science, Geology from the University of Alabama and a Bachelor of Science, Geology from Auburn University. Ms. Folse is a Board member for the Auburn University College of Arts & Sciences and was a Board member for the American Wind Energy Association from 2016 to 2019. Ms. Folse brings to the Company experience in corporate risk management, large-scale crisis management, leveraging data analysis, leading large and complex organizations, and driving cultural change while realizing improvements in safety, operational and financial performance.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Harry Goldgut Ontario, Canada	2019	Mr. Goldgut is Vice Chair of Brookfield Asset Management's Renewable Group and Brookfield's Infrastructure Group and provides strategic advice related to Brookfield's open-end Infrastructure Fund. Mr. Goldgut was the CEO or Co-CEO and Chairman of Brookfield Renewable Power Inc., from 2000 to 2008, and thereafter, until 2015, he was Chairman of Brookfield's Power and Utilities Group. From 2015 to 2018, he served as Executive Chairman of Brookfield's Infrastructure and Power Groups. Mr. Goldgut joined Brookfield in 1997 and led the expansion of Brookfield's renewable power and utilities operations. He has had primary responsibility for strategic initiatives, acquisitions and senior regulatory relationships. He was responsible for the acquisition of the majority of Brookfield's renewable power assets. Mr. Goldgut also played a role in the restructuring of the electricity industry in Ontario as a member of several governmental committees, including the Electricity Market Design Committee, the Minister of Energy's Advisory Committee, the Clean Energy Task Force, the Ontario Energy Board Chair's Advisory Roundtable and the Ontario Independent Electricity Operator CEO Roundtable on Market Renewal. Mr. Goldgut also serves on the Boards of Directors of Isagen S.A. ESP, the third-largest power generation company in Colombia, and the Princess Margaret Cancer Foundation. Mr. Goldgut attended the University of Toronto and holds an LL.B from York University's Osgoode Hall Law School.
John Kousinioris Alberta, Canada	2021	Mr. Kousinioris is the President and Chief Executive Officer of the Company, responsible for the overall stewardship of the Company, including strategic leadership. Previously, he was Chief Operating Officer of the Company, responsible for overseeing operations, shared services, commercial, trading, customer solutions, hedging and optimization. Prior thereto, Mr. Kousinioris was the Company's Chief Growth Officer and Chief Legal and Compliance Officer. Mr. Kousinioris' prior leadership roles have provided him with responsibility for almost every aspect of the Company's business. He was also the President of TransAlta Renewables Inc. until February 5, 2021. Prior to joining TransAlta, Mr. Kousinioris was a partner and co-head of the corporate commercial department at Bennett Jones LLP. He has 30 years of experience in securities law, mergers and acquisitions and corporate governance matters. Mr. Kousinioris has a Bachelor of Arts degree in Honors Business Administration from the University of Western Ontario, a Master of Business Administration degree from York University and a Bachelor of Laws degree from Osgoode Hall Law School at York University. He has attended the Advanced Management Program at Harvard University. He is also Vice Chair of the Board of Governors of Bow Valley College and a member of the Board of Directors of the Calgary Stampede Foundation.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Thomas O'Flynn New Jersey, US	2021	Mr. O'Flynn is the Chief Financial Officer of Powin Energy, a battery energy storage company. Mr. O'Flynn is also a Venture Partner in Energy Impact Partners, a private energy technology fund investing in high-growth companies in the energy, utility and transportation industries, and also an investor in Powin. Mr. O'Flynn was the Chief Executive Officer and Chief Investment Officer, AES Infrastructure Advisors at the AES Corporation. Prior thereto he was Executive Vice President and Chief Financial Officer at AES Corporation and responsible for all aspects of global finance and M&A teams across six global regions. During his tenure, Mr. O'Flynn helped lead AES through a significant transformation, including strategic exits of non-core markets, that resulted in improved financial stability and allowed for the redeployment of cash to primary growth markets. AES's total shareholder return increased 54% during his tenure and its credit rating improved significantly. Mr. O'Flynn was also a key driver in initiating a major transition to renewables and green energy to significantly improve AES's growth profile and reduce its carbon footprint. Prior to joining AES Corporation, Mr. O'Flynn was with the Blackstone Group Inc. where he was Senior Advisor, Power and Utility Sector, and Chief Operating Officer and Chief Financial Officer of Transmission Developers Inc., a Blackstone-controlled entity that develops innovative power transmission projects in an environmentally responsible manner. Prior thereto he was Executive Vice President and Chief Financial Officer at Public Service Enterprise Group Incorporated and was Head of North American Power at Morgan Stanley. Mr. O'Flynn has a Bachelor of Arts, in economics from Northwestern University and a Master of Business Administration, Finance from the University of Chicago. He is also currently on the Board of Directors of the New Jersey Performing Arts Center. He is also an adjunct professor at Northwestern University, for a Master's Program in Energy Infrastructure Development and Finance. Mr. O'Flynn has demonstrated an ability to realize shareholder value through his significant senior executive experience at large electricity companies. He has led successful organizational transformations, including by focusing on acquisitions and greenfield development.
Beverlee F. Park British Columbia, Canada	2015	Ms. Park is the Chair of the Audit, Finance and Risk Committee of the Board. Ms. Park was previously a board member of SSR Mining Inc., Teekay LNG Partners, InTransit BC and BC Transmission Corp, where she had chaired the audit committees. Ms. Park has served on a wide range of not-for-profit boards over her career, including the University of British Columbia Board of Governors. Ms. Park was an executive of TimberWest Forest Corp until her retirement in 2013. While at TimberWest she held several roles including Interim CEO, COO, President of the real estate division and Executive Vice President and CFO. Prior to being at TimberWest, Ms. Park was at BC Hydro and KPMG. Ms. Park holds a Bachelor of Commerce from McGill University, an MBA from the Simon Fraser University Executive Program and is a Fellow of the Chartered Professional Accountants of British Columbia (FCPA, FCA). Ms. Park brings to the Company 35 years of experience in a range of industries.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Bryan D. Pinney Alberta, Canada	2018	Mr. Pinney is Chair of the Human Resources Committee. He is currently the lead director for North American Construction Group Ltd. and a director of Sundial Growers Inc., a NASDAQ listed company. He is also a director of one private company. Mr. Pinney was also the past chair of the Board of Governors of Mount Royal University and has previously served on a number of non-profit boards. Mr. Pinney has over 30 years of experience serving many of Canada's largest corporations, primarily in energy and resources and construction. Mr. Pinney served as Calgary Managing Partner of Deloitte LLP from 2002 through 2007 and as National Managing Partner of Audit & Assurance from 2007 to 2011 and Vice-Chair until June 2015. Mr. Pinney was a past member of Deloitte LLP's Board of Directors and chair of the Finance and Audit Committee. He was a partner at Andersen LLP and served as Calgary Managing Partner from 1991 through May 2002. He is a Fellow of the Institute of Chartered Accountants, a Chartered Business Valuator and is a graduate of the Ivey Business School at the University of Western Ontario with an honours degree in Business Administration. He is also a graduate of the Canadian Institute of Corporate Directors. Mr. Pinney's extensive leadership accomplishments, financial expertise, knowledge of regulatory and compliance matters and diverse range of industry experience make him an important contributor to the Company.
James Reid Alberta, Canada	2021	Mr. Reid is the former Managing Partner of the Brookfield Private Equity Group based in Calgary, Alberta. In that role he was responsible for originating, evaluating and structuring investments and financings in the energy sector and overseeing operations in Brookfield's private equity energy segment. He established Brookfield's Calgary office in 2003 after spending several years as a Chief Financial Officer for two oil and gas exploration and production companies in Western Canada. Mr. Reid obtained his Chartered Accountant designation at PricewaterhouseCoopers in Toronto and holds a Bachelor of Arts in commerce from the University of Toronto. Mr. Reid has considerable experience in leadership, finance, mergers and acquisitions and organizational change.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Sandra R. Sharman Ontario, Canada	2020	Ms. Sharman leads the Human Resources, Communications, Marketing and Enterprise Real Estate teams at CIBC, supporting execution of business strategy, transforming to a purpose-driven bank and enabling a world-class culture. Ms. Sharman and her team are responsible for developing and delivering the Global Human Capital Strategy designed to challenge conventional thinking, drive business solutions and shape the culture of the bank. Her key areas of accountabilities also include workplace transformation, compensation and benefits, employee relations, policy and governance, talent management, marketing, corporate real estate, including the bank's new global headquarters, CIBC Square and all aspects of internal and external communications and public affairs, including government relations and awards. A proven business leader with over 30 years of human resources and financial services experience in both Canada and the US, Ms. Sharman has played a lead role in shaping an inclusive and collaborative culture at CIBC, focused on empowering and enabling employees to reach their full potential. Ms. Sharman assumed the leadership of Human Resources at CIBC in 2014 and added accountability for communications and public affairs in 2017. Since then, her portfolio has expanded to encompass purpose, brand, marketing and most recently corporate real estate. Ms. Sharman earned her Masters of Business Administration at Dalhousie University.
Sarah A. Slusser Washington, US	2021	Ms. Slusser is the Chief Executive Officer of Cypress Creek Renewables, LLC, ("Cypress Creek") a solar and storage Independent Power Producer that develops, owns and operates projects in the US Cypress Creek owns a 1,600 MW operating fleet and has a 7,000 MW development pipeline. She joined Cypress Creek as CEO in 2019 to reposition the company for sustainable growth. Prior to joining Cypress Creek, she founded Point Reyes Energy Partners LLC, a solar and energy storage advisory and development company, where she provided strategic advice to a number of large companies in the renewable sector. She remains a founding partner of Point Reyes Energy Partners LLC. Prior to this, she co-founded GeoGlobal Energy LLC, a geothermal company in the US, Chile, and Germany, which was sold to its cornerstone investor in 2015. Before co-founding GeoGlobal Energy LLC, Ms. Slusser worked at the AES Corporation for 21 years, where she earned increasingly significant leadership roles. She ultimately became a Senior Vice President and Managing Director reporting directly to the CEO and led the corporate Mergers and Acquisitions group for the AES Corporation. She was President of one of eight Divisions of AES that was responsible for all development, construction and operations in the Caribbean, Mexico, and Central America. Ms. Slusser holds a Bachelor of Arts (cum laude) in geology from Harvard University and a Master of Business Administration from the Yale School of Management. She is a member of the Board of Directors of the Redwood Foundation, a family foundation promoting education and the environment and Our Food Chain, a non-profit promoting healthy eating.

Officers

The name, province or state and country of residence of each of our executive officers as at February 23, 2022, their respective position and office and their respective principal occupation are set out below.

Name	Principal Occupation	Residence
John H. Kousiniotis	President and Chief Executive Officer	Alberta, Canada
Todd J. Stack	Executive Vice President, Finance & Chief Financial Officer	Alberta, Canada
Jane N. Fedoretz	Executive Vice President, People, Talent & Transformation	Alberta, Canada
Kerry O'Reilly Wilks	Executive Vice President, Legal, Commercial & External Affairs	Alberta, Canada
Michael J. Novelli	Executive Vice President, Generation	Alberta, Canada
Blain van Melle	Executive Vice President, Alberta Business	Alberta, Canada
Aron Willis	Executive Vice President, Growth	Alberta, Canada
Shasta R. Kadonaga	Senior Vice President, Shared Services	Alberta, Canada
Brent V. Ward	Senior Vice President, M&A, Strategy & Treasurer	Alberta, Canada

All of the executive officers of TransAlta have held their present principal occupation or position for the past five years, except for the following:

- On Apr. 1, 2021, Mr. Kousiniotis was appointed President and Chief Executive Officer. Prior to April 2021, Mr. Kousiniotis was Chief Operating Officer of TransAlta. Prior to August 2019, Mr. Kousiniotis was Chief Growth Officer of TransAlta. Prior to July 2018, Mr. Kousiniotis was Chief Legal and Compliance Officer and Corporate Secretary of the Company.
- Prior to February 2021, Mr. Stack was Chief Financial Officer of TransAlta. Prior to May 2019, Mr. Stack was Managing Director and Corporate Controller of TransAlta. Prior to February 2017, Mr. Stack was Managing Director and Treasurer of TransAlta. Prior to October 2015, Mr. Stack was Vice President and Treasurer of TransAlta. Prior to November 2012, Mr. Stack was Treasurer of TransAlta.
- Prior to February 2021, Ms. Fedoretz was Chief Talent & Transformation Officer of TransAlta. Prior to November 2018, Ms. Fedoretz was Counsel, Energy Group at Blake, Cassels & Graydon LLP.
- Prior to February 2021, Ms. O'Reilly Wilks was Chief Officer, Legal, Regulatory & External Affairs of TransAlta. Prior to August 2019, Ms. O'Reilly Wilks was Chief Legal & Compliance Officer of TransAlta. Prior to November 2018, Ms. O'Reilly Wilks was Head of Legal, North Atlantic & UK, for Vale S.A. (base metal business).
- Prior to May 2020, Mr. Novelli was Chief Operating Officer of InterGen, a global independent power generation and energy development company. Prior to 2016, Mr. Novelli was Vice President and General Manager of InterGen. Prior to 2015, Mr. Novelli was Vice President, Global Operations and Engineering of InterGen.
- Prior to February 2021, Mr. van Melle was Senior Vice President, Trading & Commercial of TransAlta. Prior to August 2019, Mr. van Melle was Managing Director and Head Trader of TransAlta.
- Prior to February 2021, Mr. Willis was Senior Vice President, Growth of TransAlta. Prior to August 2019, Mr. Willis was Senior Vice President, Growth and Commercial of TransAlta. Prior to April 2019, Mr. Willis was Senior Vice President, Commercial, Gas & Renewables Operations of TransAlta. Prior to July 2018, Mr. Willis was Senior Vice President, Gas & Renewables of TransAlta.
- Prior to December 2020, Ms. Kadonaga was Managing Director, Operations Services of TransAlta, Manager, Operations Services of TransAlta.
- Prior to February 2021, Mr. Ward was Managing Director & Treasurer of TransAlta.

As of February 23, 2022, the directors and executive officers of TransAlta, as a group, beneficially owned, directly or indirectly, or exercised control or direction over less than one per cent of our outstanding common shares.

Interests of Management and Others in Material Transactions

No director or executive officer of TransAlta, no person or company that is the direct or indirect beneficial owner of, or who exercises control or direction over more than 10 per cent of our common shares, and no associate or affiliate of any of them, has or has had any material interest, direct or indirect, in any transaction involving TransAlta within the three most recently completed financial years or to date in 2022 or in any proposed transactions that has materially affected or will materially affect us.

In connection with the Brookfield Investment, Mr. Richard Legault and Mr. Harry Goldgut were nominated by Brookfield and elected to the Board on April 26, 2019. On May 4, 2021 Mr. Legault resigned from the Board and Mr. James Reid was elected as the Brookfield nominee. See "*Directors and Officers*" section of this AIF. Brookfield is also entitled to receive certain funding fees, management fees and interest and dividends on its \$750 million investment. Also, see "*General Development of the Business - Three - Year History - Generation and Business Development - 2019 - Strategic Investment by Brookfield Renewable Partners*", and "*Capital and Loan Structure - Investment Agreement and E&O Agreement*" sections of this AIF.

Indebtedness of Directors, Executive Officers and Senior Officers

Since Jan. 1, 2021, there has been no indebtedness outstanding to TransAlta from any of our directors, executive officers, senior officers or associates of any such directors, nominees or senior officers.

Corporate Cease Trade Orders, Bankruptcies or Sanctions

Corporate Cease Trade Orders and Bankruptcies

Except as noted below, no director, executive officer or controlling security holder of the Company is, as at the date of this Annual Information Form, or has been, within the past 10 years before the date hereof, a director or executive officer of any other issuer that, while that person was acting in that capacity:

- was the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days; or
- was subject to an event that resulted, after the person ceased to be a director or executive officer, in the company being the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation for a period of more than 30 consecutive days; or
- within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

Mr. Reid is a director of Second Wave Petroleum Inc. ("SWP"), a private oil and gas exploration and production company. On June 30, 2017, SWP made an assignment into bankruptcy pursuant to the *Bankruptcy and Insolvency Act* (Canada) ("BIA"). On Sept. 7, 2017, SWP made a proposal under the BIA and on Oct. 5, 2017, the proposal was approved by the Court of Queen's Bench of Alberta and the bankruptcy was annulled.

Personal Bankruptcies

No director, executive officer or controlling security holder of the Company has, within the 10 years before the date hereof, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or became subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold such person's assets.

Penalties or Sanctions

No director, executive officer or controlling security holder of the Company has:

- been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, other than penalties for late filing of insider reports; or
- been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Material Contracts

Other than contracts entered into in the ordinary course of business, the Company believes that the following are material contracts, the particulars of which are disclosed elsewhere in this AIF, to which the Company or its subsidiaries are a party:

- Investment Agreement - See "*Capital and Loan Structure - Investment Agreement and E&O Agreement*" section of this AIF.
- E&O Agreement - See "*Capital and Loan Structure - Investment Agreement and E&O Agreement*" section of this AIF.
- Registration Rights Agreement - See "*Capital Structure - Registration Rights Agreement*" section of this AIF.
- Off-Coal Agreement - See "*Business of TransAlta - Alberta Thermal Business Segment - Off-Coal Agreement*" section of this AIF.

Conflicts of Interest

Circumstances may arise where members of the Board serve as directors or officers of corporations which are in competition to the interests of TransAlta. No assurances can be given that opportunities identified by such member of the Board will be provided to us. However, our policies provide that each director and executive officer must comply with the disclosure requirements of the CBCA regarding any material interest. If a declaration of material interest is made, the declaring director shall not vote on the matter if put to a vote of the Board. In addition, the declaring director and executive officer may be requested to recuse himself or herself from the meeting when such matter is being discussed.

Legal Proceedings and Regulatory Actions

TransAlta is occasionally named as a party in claims and legal proceedings that arise during the normal course of its business. We review each of these claims, including the nature of the claim, the amount in dispute or claimed and the availability of insurance coverage. There can be no assurance that any particular claim will be resolved in our favour or that such claim may not have a material adverse effect on TransAlta. For further information, please refer to Note 36 of our audited consolidated financial statements for the year ended Dec. 31, 2021, which financial statements are incorporated by reference herein. Also, see "Documents Incorporated by Reference" section of this AIF.

FMG Dispute at South Hedland Power Station

On May 2, 2021, the Company 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 has resulted in FMG continuing as a customer of the South Hedland facility.

Mangrove Claim

On April 23, 2019, the Mangrove commenced an action in the Ontario Superior Court of Justice, naming the Company, the incumbent members of the Board of Directors of the Company on such date, and Brookfield, as defendants. Mangrove was seeking to set aside the 2019 Brookfield transaction. The parties reached a confidential settlement and the action was discontinued in the Ontario Superior Court of Justice on April 30, 2021.

Keephills 1 Stator Force Majeure Appeal

The Balancing Pool and ENMAX are seeking to set aside an arbitration award on the basis that they did not receive a fair hearing. The Alberta Court of Queen's Bench ("ABQB") dismissed the Balancing Pool and ENMAX's allegations of unfairness on June 26, 2019. The Balancing Pool and ENMAX, however, sought leave to appeal the ABQB's decision at the Court of Appeal, which was granted on Feb. 13, 2020. The appeal was heard on July 8, 2021. After the hearing, counsel for ENMAX raised concerns that one of the three justices on the appeal panel was distracted during the hearing. The justice has since recused herself from the hearing and the parties made submissions with respect to whether the remaining two justices can continue to issue the decision or whether a new hearing is required. On Nov. 8, 2021, the Alberta Court of Appeal released its decision and ordered that the appeal be re-heard by a new three-person panel of the Court of Appeal, which was heard on Jan. 27, 2022. The Company remains of the view that the Court of Appeal will affirm the ABQB decision that the arbitration proceeding was fair.

Keephills 1 Superheater Force Majeure

Keephills Unit 1 was taken offline from March 17, 2015 to May 17, 2015, as a result of a large leak in the secondary superheater. TransAlta claimed force majeure under the Alberta PPA. ENMAX, the purchaser under the Alberta PPA at the time, did not dispute the force majeure but the Balancing Pool attempted to do so, seeking to recover \$12 million in capacity payment charges it paid to TransAlta while the unit was offline. The parties reached a confidential settlement on April 21, 2021, and this matter is now resolved.

Hydro Power Purchase Arrangement ("Hydro PPA") Emission Performance Credits

The Balancing Pool claims to be entitled to emissions performance credits earned by the hydro facilities as a result of opting those facilities into the *Carbon Competitiveness Incentive Regulation* from 2018-2020 inclusive. The Balancing Pool claims ownership of the EPCs because it believes the change in law provisions under the Hydro PPA require the EPCs to be passed through to the Balancing Pool. TransAlta has not received any benefit from the EPCs or from any purported change in law and believes that the Balancing Pool has no rights to these credits. An arbitration has commenced and the hearing is scheduled for February 6-10, 2023.

Kaybob 3 Cogeneration Dispute

The Company is engaged in a dispute with Energy Transfer Canada ULC, formerly SemCAMS Midstream ULC ("ET Canada") as a result of ET Canada's purported termination of agreements between the parties to develop, construct and operate a 40 MW cogeneration facility at the Kaybob South No. 3 sour gas processing facility. The Company commenced an arbitration seeking full compensation for ET Canada's wrongful termination of the agreements. ET Canada seeks a declaration that the agreements were lawfully terminated. A hearing is scheduled for two weeks starting Jan. 9, 2023.

Sarnia Outages

The Sarnia cogeneration facility experienced three separate outages between May 19, 2021, 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 disruptions 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 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 TransAlta to the customers for the three outages.

Sundance A Decommissioning

TransAlta filed an application with the AUC seeking payment from the Balancing Pool for TransAlta's decommissioning costs for Sundance A, including its proportionate share of the Highvale mine. The Balancing Pool and Utilities Consumer Advocate are participating as interveners because they take issue with the decommissioning costs claimed by TransAlta. Due to various factors, including the COVID-19 pandemic and significant information requests from the Balancing Pool, the application has been delayed. While a hearing date has not been set, the application will likely be heard in late 2022 or early 2023. TransAlta expects to receive payment from the Balancing Pool for its decommissioning costs; however, the amount that the AUC will award is uncertain.

Transmission Line Loss Rule Proceeding

The Company has been participating in a line loss rule proceeding before the 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.

Direct Assigned Capital Deferral Account ("DACDA") Application

AltaLink Management Ltd. ("AltaLink") and TransAlta (as a secondary applicant) filed an application before the AUC to recover its 2016-2018 DACDA costs incurred for the 240 kV line upgrades for the Edmonton Region Project. The AUC disallowed 15 per cent (approximately \$3 million) of TransAlta's portion. TransAlta disputed this finding and filed a permission to appeal application with the Court of Appeal and a review and variance application with the AUC. The AUC dismissed the application on April 22, 2021. The permission to appeal was subsequently discontinued on July 5, 2021, which concludes this matter.

Transfer Agent and Registrar

The transfer agent and registrar for our common shares and Series A Shares, Series B Shares, Series C Shares, Series E Shares and Series G Shares is Computershare Investor Services Inc. Common shares are transferable in Vancouver, Calgary, Toronto, Montréal and Halifax. Series A Shares, Series B Shares, Series C Shares, Series E Shares and Series G Shares are transferable in Calgary and Toronto. The transfer agent and registrar for our common shares in the US is Computershare Trust Company at its principal office in Jersey City, New Jersey.

Interests of Experts

The Company's auditors are Ernst & Young LLP, Chartered Professional Accountants, 2200, 215 - 2nd Street, S.W., Calgary, Alberta, T2P 1M4.

Our auditors, Ernst & Young LLP, are independent with respect to the Company in the context of the Rules of Professional Conduct of the Institute of Chartered Professional Accountants of Alberta and in compliance with Rule 3520 of the Public Company Accounting Oversight Board.

Additional Information

Additional information in relation to TransAlta may be found under TransAlta's profile on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of our securities and securities authorized for issuance under equity compensation plans (all where applicable) is contained in our Management Proxy Circular for the most recent annual meeting of shareholders that involved the election of directors and can be obtained upon request from our Investor Relations department, or as filed on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

Additional financial information is provided in our audited consolidated financial statements as at and for the year ended Dec. 31, 2021, and in the related annual management's discussion and analysis, each of which is incorporated by reference in this AIF. See "Documents Incorporated by Reference" section of this AIF.

Audit, Finance and Risk Committee

General

The members of TransAlta's Audit, Finance and Risk Committee ("AFRC") satisfy the requirements for independence under the provisions of the Canadian Securities Administrators, National Instrument 52-110 – Audit Committees, Section 303A of the NYSE Rules and Rule 10A-3 under the *U.S. Securities and Exchange Act of 1934*. The AFRC's Charter requires that it be made up of a minimum of three independent directors. The AFRC is currently comprised of four independent members: Beverlee F. Park (Chair), Alan J. Fohrer, Thomas M. O'Flynn and Bryan D. Pinney.

All members of the committee are financially literate pursuant to both Canadian and US securities requirements and each member of the AFRC has also been determined by the Board to be an "audit committee financial expert," within the meaning of Section 407 of the US *Sarbanes Oxley Act of 2002*.

Mandate of the Audit, Finance and Risk Committee

The AFRC provides assistance to the Board in fulfilling its oversight responsibilities with respect to:

- the integrity of the Company's financial statements and financial reporting process,
- the systems of internal financial controls and disclosure controls established by management,
- the risk identification and assessment process conducted by management, including the programs established by management to respond to such risks,
- the internal audit function,
- compliance with financial, legal and regulatory requirements, and
- the external auditors' qualifications, independence and performance.

In so doing, it is the AFRC's responsibility to maintain an open avenue of communication between it and the external auditors, the internal auditors and management of the Company.

The function of the AFRC is oversight. Management is responsible for the preparation, presentation and integrity of the interim and annual financial statements and related disclosure documents. Management of the Company is also responsible for maintaining appropriate accounting and financial reporting policies and systems of internal controls and disclosure controls and procedures to comply with accounting standards, applicable laws and regulations that provide reasonable assurance that the assets of the Company are safeguarded and transactions are authorized, executed, recorded and properly reported.

While the AFRC has the responsibilities and powers set forth herein, it is not the duty of the AFRC to plan or conduct audits or to determine that the Company's financial statements are complete and accurate and in accordance with generally accepted accounting principles. This is the responsibility of management and the external auditors.

The AFRC must also designate at least one member as an "audit committee financial expert." The designation of a member or members as an "audit committee financial expert" is based on that individual's education and experience, which the individual will bring to bear in carrying out his or her duties on the AFRC. Designation as an "audit committee financial expert" does not impose on such person any duties, obligations and liability that are greater than the duties, obligations and liability imposed on another member of the AFRC and Board in the absence of such designation.

Management is also responsible for the identification and management of the Company's risks and the development and implementation of policies and procedures to mitigate such risks. The AFRC's role is to provide oversight in order to ensure that the Company's assets are protected and safeguarded within reasonable business limits. The AFRC reports to the Board on its risk oversight responsibilities.

Audit, Finance and Risk Committee Charter

The Charter of the AFRC is attached as Appendix "A".

Relevant Education and Experience of Audit, Finance and Risk Committee Members

The following is a brief summary of the education or experience of each member of the AFRC that is relevant to the performance of his or her responsibilities as a member of the AFRC, including any education or experience that has provided the member with an understanding of the accounting principles that we use to prepare our annual and interim financial statements.

Name of AFRC Member	Relevant Education and Experience
Alan J. Fohrer	Prior to his retirement in December 2010, Mr. Fohrer was Chairman and CEO of SCEC, a subsidiary of Edison and one of the largest electric utilities in the United States. Prior to that, Mr. Fohrer served as Executive Vice-President, Treasurer and Chief Financial Officer of both Edison and SCEC. Mr. Fohrer also serves on the audit committee of PNM Resources Inc., a public company. Mr. Fohrer holds a Master of Business Administration from California State University in Los Angeles.
Thomas M. O'Flynn	Mr. O'Flynn is the Chief Financial Officer of Powin Energy, an entity in which Energy Impact Partners LP (a private energy technology fund) is a major investor. Prior thereto Mr. O'Flynn was Chief Executive Officer and Chief Investment Officer at The AES Corporation, Executive Vice President and Chief Financial Officer at Public Service Enterprise Group Incorporated and Head of North American Power at Morgan Stanley. Mr. O'Flynn has a Bachelor of Arts in economics from Northwestern University and a Master of Business Administration, Finance from the University of Chicago.
Beverlee . F. Park (Chair)	Ms. Park has executive experience in a range of industries, including forest products, shipping, mining, transportation, real estate, and electricity transmission. Ms. Park spent 17 years of her career with TimberWest Forest Corp. where she was most recently Chief Operations Officer. Over that time, she also held the roles of Interim Chief Executive Officer, President of the real estate division (Couverdon Real Estate) and Executive Vice President and Chief Financial Officer. Ms. Park is currently a director of SSR Mining Inc. where she chairs the Audit Committee. She was formerly a director of Teekay LNG Partners, InTransit BC and BC Transmission Corp. where she chaired the audit committees of all these boards. Ms. Park holds a Bachelor of Commerce with distinction from McGill University, a Master of Business Administration from the Simon Fraser University Executive program and is a Chartered Accountant. She was named a Fellow of the Chartered Professional Accountants of British Columbia in 2011.
Bryan D. Pinney	Mr. Pinney has more than 30 years of experience in financial auditing, valuation and advising companies in energy and natural resources. He has been an independent director of North American Construction Group Ltd. since 2015 and its lead director since Oct. 31, 2017. He is also a director of Sundial Growers Inc., a NASDAQ-listed company, where he also serves as Chair of the Audit & Risk Committee. He served as member of Deloitte's Board of Directors and chair of the Finance and Audit Committee. He was the recent Chair of the Board of Governors and member of the Board of Governors of Mount Royal University and has previously served on a number of non-profit boards. He has been an independent non-executive director at Persta Resources Inc., a Hong Kong listed oil and gas exploration company. He has been a Chartered Accountant since December 1978, a Fellow of the Chartered Professional Accountants of Alberta since January 2009 and a Chartered Business Valuator of Canada since December 1990. Mr. Pinney obtained a Bachelor of Arts in business administration from the University of Western Ontario in 1975 and also completed the Directors Education Program offered by the Institute of Corporate Directors in Canada in 2012.

Other Board Committees

In addition to the AFRC, TransAlta has three other standing committees: the Governance, Safety and Sustainability Committee, the Human Resources Committee and the Investment Performance Committee. The members of these committees as at Dec. 31, 2021 are:

Governance, Safety and Sustainability Committee

Chair: Rona H. Ambrose

Sandra R. Sharman

Laura W. Folse

Alan J. Fohrer

Human Resources Committee

Chair: Bryan D. Pinney

Rona H. Ambrose

Sandra R. Sharman

Beverlee F. Park

Sarah A. Slusser

Investment Performance Committee

Chair: Laura W. Folse

Thomas M. O'Flynn

Harry Goldgut

James Reid

Sarah A. Slusser

Charters of the Governance, Safety and Sustainability Committee, the Human Resources Committee and the Investment Performance Committee may be found on our website under Governance, Board Committees at www.transalta.com. Further information about the Board and our corporate governance may also be found on our website or in our Management Proxy Circular which is filed on SEDAR at www.sedar.com and EDGAR at www.sec.gov.

Fees Paid to Ernst & Young LLP

For the years ended Dec. 31, 2021 and Dec. 31, 2020, Ernst & Young LLP and its affiliates billed \$3,724,342 and \$4,253,798, respectively, as detailed below.

Ernst & Young LLP		
Year Ended December 31	2021	2020
Audit Fees ⁽¹⁾	\$ 2,453,917	\$ 2,273,888
Audit-related fees ⁽¹⁾⁽²⁾	1,270,425	1,122,771
Tax fees	—	857,139
All other fees	—	—
Total	\$ 3,724,342	\$ 4,253,798

(1) Comparative figures have been reclassified to conform to the current periods classification of fees.

(2) Included in the audit-related fees are \$844,167 (2020 – \$722,733) of fees billed to TransAlta Renewables.

No other audit firms provided audit services in 2021 or 2020.

The nature of each category of fees is described below:

Audit Fees

Audit fees are for professional services rendered for the audit and review of our financial statements or services provided in connection with statutory and regulatory filings and providing comfort letters associated with securities documents.

Audit-Related Fees

Assurance and related services that are reasonably related to the performance of the audit or review of our financial statements that are not included in the Audit Fees. Audit-related fees include statutory audits, pension audits and other compliance audits. In 2021 and 2020, we have included the fees billed to TransAlta Renewables, a controlled and consolidated subsidiary of TransAlta.

Tax Fees

Tax fees are tax-related services for review of tax returns, assistance with questions on tax audits, and tax planning.

All Other Fees

Products and services provided by the Company's auditor other than those services reported under Audit Fees, Audit-Related Fees and Tax Fees. This includes fees related to training services provided by the auditor.

Pre-Approval Policies and Procedures

The AFRC has considered whether the provision of services other than audit services is compatible with maintaining the auditors' independence. In May 2002, the AFRC adopted a policy that prohibits TransAlta from engaging the auditors for "prohibited" categories of non-audit services and requires pre-approval of the AFRC for other permissible categories of non-audit services, such categories being determined under the *Sarbanes Oxley Act*. This policy also provides that the Chair of the AFRC may approve permissible non-audit services during the quarter and report such approval to the AFRC at its next regularly scheduled meeting.

Appendix "A"
TransAlta Corporation
(the "Corporation")
Audit, Finance and Risk Committee Charter

A. Establishment of Committee and Procedures

1. Composition of Committee

The Audit, Finance and Risk Committee ("Committee") of the Board of Directors ("Board") of TransAlta Corporation ("Corporation") shall consist of not less than three Directors. All members of the Committee shall be determined by the Board to be independent as required under the provisions of Canadian Securities Regulators' Multilateral Instrument 52-110 Audit Committees, Section 303A of the New York Stock Exchange rules and Rule 10A-3 of the *U.S. Securities and Exchange Act of 1934*, as such rules apply to audit committee members. All members of the Committee must be financially literate pursuant to both Canadian and US securities requirements and at least one member must be determined by the Board to be an "audit committee financial expert" within the meaning of Section 407 of the *Sarbanes-Oxley Act of 2002* ("Sarbanes-Oxley Act"). Determinations as to whether a particular director satisfies the requirements for membership on the Committee shall be made by the Board at the recommendation of the Governance, Safety and Sustainability Committee ("GSSC").

2. Appointment of Committee Members

Members of the Committee shall be appointed from time to time by the Board, on the recommendation of the GSSC, and shall hold office until the next annual meeting of shareholders, or until their successors are earlier appointed, or until they cease to be Directors of the Corporation.

3. Vacancies

Where a vacancy occurs at any time in the membership of the Committee, it may be filled by the Board and on the recommendation of the GSSC. The Board shall fill any vacancy if the membership of the Committee is less than three directors.

4. Committee Chair

The Board shall appoint a Chair for the Committee on the recommendation of the GSSC.

5. Absence of Committee Chair

If the Chair of the Committee is not present at any meeting of the Committee, one of the members of the Committee who is present at the meeting shall be chosen by the Committee to preside at the meeting.

6. Secretary of Committee

The Committee shall appoint a Secretary who need not be a director of the Corporation.

7. Meetings

The Chair of the Committee may call a regular meeting of the Committee. The Committee shall meet at least quarterly and at such other time during each year as it deems appropriate to fulfil its responsibilities. In addition, the Chair of the Committee or any two members may call a special meeting of the Committee at any time.

The Committee shall also meet in separate executive session.

8. Quorum

A majority of the members of the Committee, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak to each other shall constitute a quorum.

9. Notice of Meetings

Notice of the time and place of every meeting shall be given in writing (including by way of written facsimile communication or email) to each member of the Committee at least 48-hours prior to the time fixed for such meeting, provided, however, that a member may in any manner waive notice of a meeting; and attendance of a member at a meeting constitutes a waiver of notice of the meeting, except where a member attends for the express purpose of objecting to the transaction of any business on the ground that the meeting is not lawfully called. Notice of every meeting shall also be provided to the external and internal auditors.

10. Attendance at Meetings

At the invitation of the Chair of the Committee, other Board members, the President and Chief Executive Officer ("CEO"), other officers or employees of the Corporation, the external auditors, and other experts or consultants may attend a meeting of the Committee.

11. Procedure, Records and Reporting

Subject to any statute or the articles and by-laws of the Corporation, the Committee shall fix its own procedures at meetings, keep records of its proceedings and report to the Board generally not later than the next scheduled meeting of the Board.

12. Review of Charter and Evaluation of Committee

The Committee shall evaluate its performance and review and assess the adequacy of its Charter at least annually or otherwise, as it deems appropriate. All changes proposed by the Committee are reviewed and approved by the GSSC and the Board.

13. Outside Experts and Advisors

In consultation with the Board, the Committee Chair, on behalf of the Committee or any of its members, is authorized, at the expense of the Corporation, when deemed necessary or desirable, to retain independent counsel, outside experts and other advisors to advise the Committee independently on any matter. The retention of such counsel, expert or advisor in no way requires the Committee to act in accordance with the recommendations of such counsel, expert or advisor.

B. Duties and Responsibilities of the Chair

The fundamental responsibility of the Chair of the Committee is to effectively manage the duties of the Committee.

The Chair is responsible for:

1. Chairing meetings of the Committee and ensuring that the Committee is properly organized so that it functions effectively and meets its obligations and responsibilities.
2. Establishing the frequency of Committee meetings, duly convening the same and confirming that quorum is present when required.
3. Working with the CEO, the Chief Financial Officer (the "CFO"), the Corporate Secretary and Assistant Corporate Secretary, as applicable, on the development of agendas and related materials for the meetings.
4. Providing leadership to the Committee and assisting the Committee in ensuring the proper and timely discharge of its responsibilities.
5. Reporting to the Board on the recommendations and decisions of the Committee.

The Chair of the Committee shall review all expense accounts and perquisites of the Chair of the Board and the CEO not less than quarterly to ensure compliance with the Corporation's policies, and shall report to the Committee on an annual basis.

C. Mandate of the Committee

The Committee provides assistance to the Board in fulfilling its oversight responsibilities with respect to i) the integrity of the Corporation's financial statements and financial reporting process, ii) the systems of internal financial controls and disclosure controls established by Management, iii) the risk identification and assessment process conducted by Management including the programs established by Management to respond to such risks, iv) the internal audit function, v) compliance with financial, legal and regulatory requirements and vi) the external auditors' qualifications, independence and performance. In so doing, it is the Committee's responsibility to maintain an open avenue of communication between it and the external auditors, the internal auditors and Management of the Corporation.

The function of the Committee is oversight. Management is responsible for the preparation, presentation and integrity of the interim and annual financial statements and related disclosure documents. Management of the Corporation is also responsible for maintaining appropriate accounting and financial reporting policies and systems of internal controls and disclosure controls and procedures to comply with accounting standards, applicable laws and regulations which provide reasonable assurance that the assets of the Corporation are safeguarded and transactions are authorized, executed, recorded and properly reported.

While the Committee has the responsibilities and powers set forth herein, it is not the duty of the Committee to plan or conduct audits or to determine that the Corporation's financial statements are complete and accurate and in accordance with generally accepted accounting principles. This is the responsibility of Management and the external auditors.

The Committee must also designate at least one member as an "audit committee financial expert." The designation of a member or members as an "audit committee financial expert" is based on that individual's education and experience, which the individual will bring to bear in carrying out his or her duties on the Committee. Designation as an "*audit committee financial expert*" does not impose on such person any duties, obligations and liability that are greater than the duties, obligations and liability imposed on another member of the Committee and Board in the absence of such designation.

Management is also responsible for the identification and management of the Corporation's risks and the development and implementation of policies and procedures to mitigate such risks. The Committee's role is to provide oversight in order to ensure that the Corporation's assets are protected and safeguarded within reasonable business limits. The Committee reports to the Board on its risk oversight responsibilities.

D. Duties and Responsibilities of the Committee

1. Financial Reporting, External Auditors and Financial Planning

A) *Duties and Responsibilities Related to Financial Reporting and the Audit Process*

- (a) Review with Management and the external auditors the Corporation's financial reporting process the work to be conducted in conjunction with the annual audit and the preparation of the financial statements, including, without limitation, the annual audit plan of the external auditors, the judgment of the external auditors as to the quality, not just the acceptability, of and the appropriateness of the Corporation's accounting principles as applied in its financial reporting and the degree of aggressiveness or conservatism of the Corporation's accounting principles and underlying estimates;
- (b) Review with Management and the external auditors the Corporation's audited annual financial statements, including the notes thereto, "Management's Discussion and Analysis," the related earnings release, and recommend their approval to the Board for release to the public;
- (c) Review with Management and the external auditors the Corporation's interim financial statements, including the notes thereto, "Management's Discussion and Analysis," the related earnings release, and approve their release to the public as required;
- (d) In reviewing the financial statements and related financial disclosure, the Committee shall review and discuss with Management and the external auditors:
 - (i) any changes in accounting principles, practices or policies considering their applicability to the business and financial impact;
 - (ii) Management's processes for formulating sensitive accounting estimates and the reasonableness of the estimates;
 - (iii) the use of "pro forma" or "non-comparable" information and the applicable reconciliation;

- (iv) alternative treatments of financial information within generally accepted accounting principles that have been discussed between Management and the auditors, ramifications of the use of such alternative disclosures and treatments and the treatment preferred by the external auditors; and
 - (v) disclosures made to the Committee by the CEO and CFO during their certification process for the relevant periodic/annual report filed with securities regulators to ensure that information required to be disclosed is recorded, processed, summarized and reported within the time periods specified for the reporting period. Obtain assurances from the CEO and CFO as to the adequacy and effectiveness of the Corporation's disclosure controls and procedures and systems of internal control over financial reporting and that any fraud involving Management or other employees who have a significant role in the Corporation's internal controls is reported to the Committee.
- (e) In reviewing the financial statements and related financial disclosure, the Committee shall also, with the external auditors:
- (i) discuss the cooperation they received from Management during the course of their review and their access to all records, data and information requested; and
 - (ii) satisfy itself that there are no unresolved issues between Management and the external auditors that could reasonably be expected to materially affect the financial statements.
- (f) Review quarterly with senior Management, the Chief Legal and Compliance Officer (or, as necessary, outside legal advisors), and the Corporation's internal and external auditors, the effectiveness of the Corporation's internal controls to ensure the Corporation is in compliance with legal and regulatory requirements and the Corporation's policies;
- (g) Review with Management and the external auditors the processes relating to the assessment of potential fraud, programs and controls to mitigate the risk of fraud, and the processes put in place for monitoring the risks within the targeted areas; and
- (h) Discuss with Management and the external auditors any correspondence from or with regulators or governmental agencies, any employee complaints or any published reports that raise material issues regarding the Corporation's financial statements or accounting policies.

B) *Duties and Responsibilities Related to the External Auditors*

- (a) The Committee shall have direct responsibility for the compensation and oversight of the external auditors including nominating the external auditors to the Board for appointment by the shareholders at the Corporation's general annual meeting. In performing its function, the Committee shall:
- (i) review and approve annually the external auditors audit plan;
 - (ii) review and approve the basis and amount of the external auditors' fees and ensure the Corporation has provided appropriate funding for payment of compensation to the external auditors;
 - (iii) subject to the delegation granted to the Chair of the Committee, pre-approve all audit related services including all non-prohibited non-audit services provided by the external auditors; the Chair of the Committee is authorized to approve all audit related services including non-prohibited non-audit services provided by the external auditors, and shall report all such approvals to the Committee at its next scheduled meeting;

- (iv) review and discuss annually with the external auditors all relationships that the external auditors and their affiliates have with the Corporation and its affiliates in order to determine the external auditors' independence, including, without limitation, (a) requesting, receiving and reviewing, at least annually, a formal written statement from the external auditors delineating all relationships that may reasonably be thought to bear on their independence with the Corporation; (b) discussing with the external auditors any relationships or services that the external auditors believe may affect their objectivity and professional skepticism; (c) reviewing with the external auditors the experience and qualifications of the senior personnel who are providing audit services to the Corporation; (d) reviewing the quality control procedures of the external auditors, including obtaining confirmation that the external auditors are in compliance with Canadian and US regulatory registration requirements; and (e) evaluating the communication and interaction with the external auditor including quality of service considerations;
- (v) in the year preceding the change of the lead (or coordinating) audit partner (having primary responsibility for the audit), and in any event not less than every five years, perform a comprehensive review of the external auditor which takes into consideration (a) the impact of the tenure of the audit firm on audit quality, trends in the audit firm's performance and expertise in the industry, incidences of independence threats and the effectiveness of safeguards to mitigate those threats, (b) the responsiveness of the audit firm to changes in the entity's business and suggestions for improvement from regulators, the audit committee and/or management, (c) the consistency and rigour of the professional skepticism applied by the external auditor, and the quality of the engagement team and its communications, review of Canadian Public Accountability Board (CPAB) inspection findings since the previous comprehensive review and how the audit firm responded to these findings, and following this comprehensive review, determine whether the audit firm should be nominated to the Board as the external auditors for appointment by the shareholders at the Corporation's next general annual meeting;
- (vi) inform the external auditors and Management that the external auditors shall have direct access to the Committee at all times, as well as the Committee to the external auditors;
- (vii) instruct the external auditors that they are ultimately accountable to the Committee as representatives of the shareholders of the Corporation; and
- (viii) at least annually, obtain and review the external auditors' report with respect to the auditing firm's internal quality-control procedures, any material issues raised by the most recent internal quality-control review or peer review of the auditing firm, any inquiry or investigation by governmental or professional authorities within the preceding five years undertaken respecting one or more independent audits carried out by the external auditors, and any steps taken to deal with any such issues.

C) *Duties and Responsibilities Related to Financial Planning*

- (a) Review and recommend to the Board for approval the Corporation's issuance and redemption of securities (including the review of all public filings to effect any of the issuances or redemptions), financial commitments and limits, and any material changes underlying any of these commitments;
- (b) Review annually the Corporation's annual tax plan;
- (c) Receive regular updates with respect to the Corporation's financial obligations, loans, credit facilities, credit position and financial liquidity;
- (d) Review annually with Management the Corporation's overall financing plan in support of the Corporation's capital expenditure plan and overall budget/medium range forecast; and

- (e) Review with Management at least annually the approach and nature of earnings guidance and financial information to be disclosed to analysts and rating agencies.

2. Internal Audit

- (a) Approve whether the internal audit function should be outsourced and if outsourced, approve the audit firm to perform such internal audit service; provided that in no event shall the external auditor be retained to also perform the internal audit function;
- (b) Review and consider, as appropriate, any significant reports and recommendations made by internal audit relating to internal audit issues, together with Management's response thereto;
- (c) Review annually the scope and plans for the work of the internal audit group, the adequacy of the group's resources, the internal auditors' access to the Corporation's records, property and personnel;
- (d) Recognize and advise senior Management that the internal auditors shall have unfettered access to the Committee, as well as the Committee to the internal auditors;
- (e) Meet separately with Management, the external auditors and internal auditors to review issues and matters of concern respecting audits and financial reporting;
- (f) Review with the Corporation's senior financial Management and the internal audit group the adequacy of the Corporation's systems of internal control and procedures; and
- (g) Recommend to the Human Resources Committee the appointment, termination or transfer of the lead individual responsible for internal audit, provided that if the internal audit function has been, or is being, outsourced to an audit firm, the Committee itself shall approve the appointment, termination or transfer of such audit firm.

3. Risk Management

The Board is responsible for ensuring that the Corporation has adopted processes and key policies for the identification, assessment and management of its principal risks. The Board has delegated to the Committee the responsibility for the oversight of Management's identification, and evaluation, of the Corporation's principal risks, and the implementation of appropriate policies, processes and systems to manage or mitigate the risks within the Corporation's risk appetite. The Committee reports to the Board thereon.

The Committee shall:

- (a) Review, at least quarterly, Management's assessment of the Corporation's principal risks; discuss with Management the processes for the identification of these risks and the efficacy of the policies and procedures for mitigating and/or addressing these risks;
- (b) Receive and review Managements' quarterly risk update including an update on residual risks;
- (c) Review the Corporation's enterprise risk management framework and reporting methodology;
- (d) Review annually the Corporation's Financial and Commodity Exposure Management Policies and approve changes to such policies;
- (e) Review and approve the Corporation's strategic hedging program, guidelines and risk tolerance;
- (f) Review and monitor quarterly results of financial and commodity exposure management activities, including foreign currency and interest rate risk strategies, counterparty credit exposure and the use of derivative instruments;
- (g) Review the Corporation's annual insurance program, including the risk retention philosophy, potential exposure and corporate liability protection programs;

- (h) Periodically consider the respective roles and responsibilities of the external auditor, the internal audit department, internal and external counsel concerning risk management and review their performance in relation to such roles and responsibilities; and
- (i) Annually, together with Management, report and review with the Board:
 - (i) the Corporation's principal risks and overall risk appetite/profile;
 - (ii) the Corporation's strategies in addressing its risk profile;
 - (iii) the processes, policies, procedures and controls in place to manage or mitigate the principal risks; and
 - (iv) the overall effectiveness of the enterprise risk management process and program.

4. Governance

A) *Public Disclosure, Legal and Regulatory Reporting*

- (a) On behalf of the Committee, the Chair shall review all public disclosure inclusive of material financial information extracted or derived from the Corporation's financial statements prior to dissemination to the public;
- (b) Review quarterly with the Chief Legal and Compliance Officer, and, if necessary, outside legal advisors, significant legal, compliance or regulatory matters that may have a material effect on the Corporation's financial statements;
- (c) Discuss with the external auditors their perception of the Corporation's financial and accounting personnel, any recommendations which the external auditors may have, including those contained in the Management letter, with respect to improving internal financial controls, choice of accounting principles or management reporting systems, and review all Management letters from the external auditors together with Management's written responses thereto;
- (d) Review with Management, the external auditors and internal legal counsel (external counsel if necessary), any litigation, claim or contingency, including tax assessments, that could have a material effect upon the financial position of the Corporation, and the manner in which these may be or have been disclosed in the financial statements;
- (e) Review annually the Insider Trading Policy and approve changes as required; and
- (f) Review annually the Corporation's Disclosure Policy and Social Media Policy to ensure continued applicability with the law and the Corporation's disclosure principles.

B) *Pension Plan Governance*

- (a) Review annually the Annual Pension Report and financial statements of the Corporation's pension plans including the actuarial valuation, asset/liability forecast, asset allocation, manager performance and plan operating costs, and reporting thereon to the Board annually; and
- (b) Together with the Human Resources Committee of the Board, review annually, and as required, the overall governance of the Corporation's Pension Plans, approving the broad objectives of the plans, the statement of investment policy, the appointment of investment managers, and reporting thereon to the Board annually.

C) *Information Technology - Cybersecurity*

- (a) Receive bi-annually a system status update with respect to the Corporation's core IT operating systems; and

- (b) Review annually the Corporation's cybersecurity programs and their effectiveness. Receive an update on the Corporation's compliance program for cyber threats and security.

D) *Administrative Responsibilities*

- (a) Review the annual audit of expense accounts and perquisites of the Directors, the CEO and the CEO's direct reports and their use of corporate assets;
- (b) Establish procedures for the receipt, retention and treatment of complaints relating to securities law, accounting, internal accounting controls, auditing or financial reporting matters, and potential ethical or legal violations;
- (c) Review all incidents, complaints or information reported through the Ethics Help Line addressed to the Committee or relating to potential or suspected material breaches of securities laws, accounting, internal accounting controls, auditing or financial reporting matters and any material ethical or legal violation;
- (d) Establish procedures for the investigation of complaints or allegations, and, in respect of potentially material complaints or allegations, report to the Board thereon and ensure that appropriate action is taken as necessary to address such matter;
- (e) Review and consider any related party transaction and to recommend, if necessary, the use of a standing committee or an ad hoc special committee to assist the Board in the evaluation of any such related party transaction;
- (f) Review and approve the Corporation's hiring policies for employees or former employees of the external auditors and monitor the Corporation's adherence to the policy; and
- (g) Report annually to shareholders on the work of the Committee during the year.

E. **Compliance and Powers of the Committee**

- (a) The responsibilities of the Committee comply with applicable Canadian laws and regulations, such as the rules of the Canadian Securities Administrators, and with the disclosure and listing requirements of the Toronto Stock Exchange, as they exist on the date hereof. In addition, this Charter complies with applicable US laws, such as the Sarbanes-Oxley Act and the rules and regulations adopted thereunder, and with the New York Stock Exchange's corporate governance standards, as they exist on the date hereof.
- (b) The Committee may, at the request of the Board or on its own initiative, investigate such other matters as are considered necessary or appropriate in carrying out its mandate.

Appendix "B"

Glossary of Terms

This Annual Information Form includes the following defined terms:

"**AESO**" – Alberta Electric System Operator.

"**Air emissions**" – Substances released to the atmosphere through industrial operations. For the fossil-fuel-fired power sector, the most common air emissions are sulphur dioxide, oxides of nitrogen, mercury, and GHGs.

"**Alberta PPA**" – Alberta Power Purchase Arrangement – A long-term arrangement established by regulation for the sale of electric energy from formerly regulated generating units to PPA buyers.

"**AUC**" – Alberta Utilities Commission.

"**Availability**" – A measure of time, expressed as a percentage of continuous operation 24 hours a day, 365 days a year that a generating unit is capable of generating electricity, regardless of whether or not it is actually generating electricity.

"**Balancing Pool**" – The Balancing Pool was established in 1999 by the Government of Alberta to help manage the transition to competition in Alberta's electric industry. Their current obligations and responsibilities are governed by the *Electric Utilities Act* (effective June 1, 2003) and the *Balancing Pool Regulation*. For more information, please go to www.balancing.pool.ca

"**Boiler**" – A device for generating steam for power, processing or heating purposes, or for producing hot water for heating purposes or hot water supply. Heat from an external combustion source is transmitted to a fluid contained within the tubes of the boiler shell.

"**Capacity**" – The rated continuous load-carrying ability, expressed in megawatts, of generation equipment.

"**Cogeneration**" – A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes.

"**Combined-cycle**" – An electric generating technology in which electricity is produced from otherwise lost waste heat exiting from one or more gas (combustion) turbines. The exiting heat is routed to a conventional boiler or to a heat recovery steam generator for use by a steam turbine in the production of electricity. This process increases the efficiency of the electric generating unit.

"**EBITDA**" – Earnings before interest, taxes, depreciation, and amortization.

"**ED&I**" – Equity, Diversity and Inclusion.

"**ESG**" – Environment, Sustainability and Governance.

"**Force majeure**" – Literally means "greater force." These clauses excuse a party from liability if some unforeseen event beyond the control of that party prevents it from performing its obligations under the contract.

"**GGPPA**" – *Greenhouse Gas Pollution Pricing Act* (Canada).

"**GHG**" – Greenhouse gases having potential to retain heat in the atmosphere, including water vapour, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, and perfluorocarbons.

"**Gigawatt**" – A measure of electric power equal to 1,000 MW.

"**GWh**" – Gigawatt hour – A measure of electricity consumption equivalent to the use of 1,000 megawatts of power over a period of one hour.

"**IESO**" – Independent Electricity System Operator.

"**LTC**" – Long-term contract.

"**MW**" – Megawatt – A measure of electric power equal to 1,000,000 watts.

"**MWh**" – Megawatt hour – A measure of electricity consumption equivalent to the use of 1,000,000 watts of power over a period of one hour.

"**Net capacity**" – The maximum capacity or effective rating, modified for ambient limitations, that a generating unit or power plant can sustain over a specific period, less the capacity used to supply the demand of station service or auxiliary needs.

"**OBPS**" – Output-Based Pricing Standard.

"**Off-Coal Agreement**" – Off-Coal Agreement dated Nov. 24, 2016, between, among others, TransAlta and Her Majesty the Queen in Right of Alberta.

"**PPA**" – Purchase power agreement.

"**Renewables PPA**" – Long-term power purchase agreements with certain subsidiaries of TransAlta Renewables providing for the purchase by TransAlta, for a fixed price, of all of the power produced at such subsidiaries.

"**TA Cogen**" – TransAlta Cogeneration LP.

"**CO₂e/GWh**" – Carbon dioxide equivalent per gigawatt hour.

"**CO₂e/MWH**" – Carbon dioxide equivalent per megawatt hour

"**TSX**" – Toronto Stock Exchange.

TransAlta Corporation

110 - 12th Avenue SW

Box 1900, Station "M"

Calgary, Alberta

Canada T2P 2M1

403.267.7110

www.transalta.com