



TRANSALTA CORPORATION
ANNUAL INFORMATION FORM
FOR THE YEAR ENDED DECEMBER 31, 2019

March 3, 2020

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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 December 31, 2019. All dollar amounts are in Canadian dollars unless otherwise noted. Unless the context otherwise requires, all references to the "Corporation" 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 *United States 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 that 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; the conversion of our coal-fired units to natural gas and the timing thereof, the amount of capital allocated thereto and the expectations relating to shareholder returns relating to this conversion; the benefits of the clean energy investment plan, including being a low-cost generator, extending the life of the assets and reducing air emissions and costs; the source of funding for the Clean Energy Investment Plan; our expectation that the \$400 million second tranche of the Brookfield investment will close in October 2020; our transformation, growth, capital allocation and debt reduction strategies; growth opportunities from 2020 to 2031 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 amount of capital allocated to new growth or development projects; our business and anticipated future financial performance and anticipated results, including our outlook and performance targets; our expected success in executing on our growth and development projects; the timing and the completion of growth projects and their attendant costs; our estimated spend on growth and sustaining capital and productivity projects; expectations in terms of the cost of operations, capital spend, and maintenance, and the variability of those costs; the terms of the current or any further proposed share buyback program and the acceptance thereof by the Toronto Stock Exchange, including the timing and number of shares to be repurchased pursuant to any normal course issuer bid; the mothballing of certain units; the impact of certain hedges on future earnings, results and cash flows; estimates of fuel supply and demand conditions and the costs of procuring fuel; expectations for demand for electricity, including for clean energy, in both the short term and long term, and the resulting impact on electricity prices; the impact of load growth, increased capacity and natural gas and other fuel costs on power prices; expectations in respect of generation availability, capacity and production; expectations regarding the role different energy sources, including renewable power generation, will play in meeting future energy needs; expected financing of our capital expenditures; expected governmental regulatory regimes and legislation, including the timing of the implementation of such regimes and regulations, as well as the cost of complying with resulting regulations and laws; our trading strategy and the risks involved in these strategies; estimates of future tax rates, future tax expense and the adequacy of tax provisions; accounting estimates and accounting policies; anticipated growth rates and competition in our markets; our expectations relating to the outcome of existing or potential legal and contractual claims, regulatory investigations and disputes; expectations regarding the renewal of collective bargaining agreements; expectations for the ability to access capital markets at reasonable terms or at all; the estimated impact of changes in interest rates and the value of the Canadian dollar relative to the US dollar and other currencies in locations where we do business; the monitoring of our exposure to liquidity risk; expectations in respect to the global economic environment and growing scrutiny by investors relating to sustainability performance; and our credit practices.

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: no significant changes to applicable laws, including any tax and regulatory changes in the markets in which we operate; no material adverse impacts to the investment and credit markets; Alberta spot power prices equal \$53 to \$63 per MWh in

2020; Mid-C spot power prices equal to US\$25 to US\$35 per MWh in 2020; sustaining capital between \$170 million and \$200 million in 2020; 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 current priorities relating to the coal-to-gas conversions, growing TransAlta Renewables and being able to realize the full economic benefit from the capacity, energy and ancillary services from our Alberta hydro assets once the applicable power purchase arrangement has expired.

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, risks relating to: fluctuations in demand, market prices and the availability of fuel supplies required to generate electricity; changes in demand for electricity and capacity and our ability to contract our generation for prices that will provide expected returns and replace contracts as they expire; the failure of the second tranche of the Brookfield investment to close in October 2020; the outcome of pending legal proceedings described in this AIF being adverse to TransAlta, including the Brookfield investment being successfully challenged; the legislative, regulatory and political environments in the jurisdictions in which we operate; environmental requirements and changes in, or liabilities under, these requirements; changes in general economic or market conditions including interest rates; operational risks involving our facilities, including unplanned outages at such facilities; disruptions in the transmission and distribution of electricity; the effects of weather and other climate-change related risks; unexpected increases in cost structure and disruptions in the source of fuels, water or wind required to operate our facilities; failure to meet financial expectations; natural and man-made disasters resulting in dam failures; the threat of domestic terrorism and cyberattacks; equipment failure and our ability to carry out or have completed the repairs in a cost-effective manner or timely manner; commodity risk management; industry risk and competition; the need to engage or rely on certain stakeholder groups and third parties; fluctuations in the value of foreign currencies and foreign political risks; the need for and availability of additional financing; structural subordination of securities; counterparty credit risk; changes in credit and market conditions; changes to our relationship with, or ownership of, TransAlta Renewables Inc.; risks associated with development projects and acquisitions, including capital costs, permitting, labour and engineering risks; increased costs or delays in the construction or commissioning of pipelines, or sourcing sufficient quantities of natural gas, for the converted units; changes in expectations in the payment of future dividends, including from TransAlta Renewables Inc.; insurance coverage; credit ratings; our provision for income taxes; legal, regulatory and contractual disputes and proceedings involving the Corporation, including as it pertains to establishing commercial operations at the South Hedland facility; outcomes of investigations and disputes; reliance on key personnel; labour relations matters; and development projects and acquisitions. 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 December 31, 2019 (the "Annual MD&A").

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 Corporation'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 December 31, 2019, 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 Certificate of Amalgamation issued on October 8, 1992. On December 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 November 26, 1992, resulted in common 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 January 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.

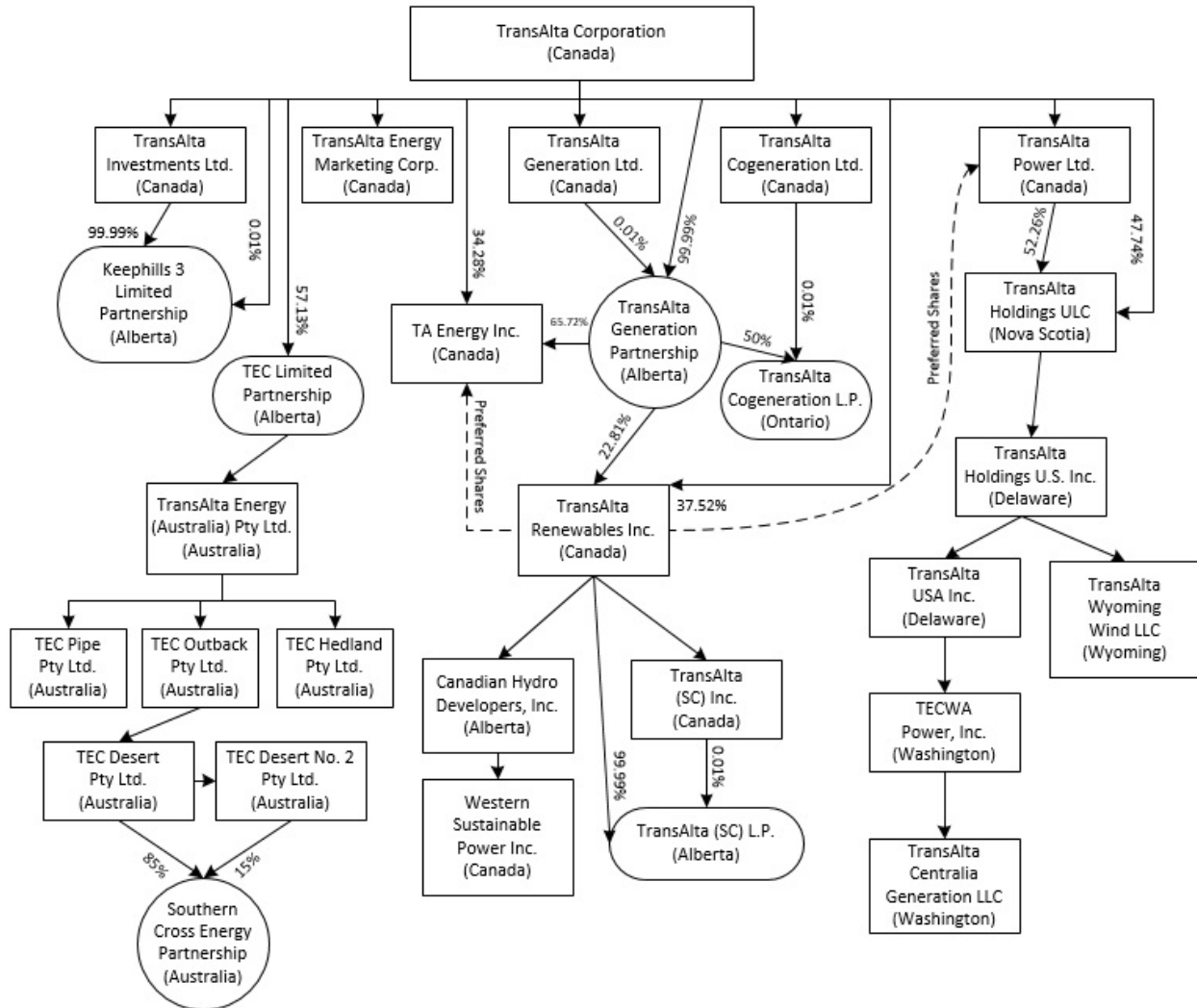
TransAlta amended its articles on December 7, 2010, to create the Series A Shares and Series B Shares; again on November 23, 2011, to create the Series C Shares and Series D Shares; again on August 3, 2012, to create the Series E Shares and Series F Shares; and again on August 13, 2014, to create the Series G Shares and Series H Shares. TransAlta expects to amend its articles in 2020 in order to create the new series of redeemable, retractable first preferred shares to be issued to an affiliate of Brookfield Renewable Partners ("Brookfield") at a second closing expected to occur in October 2020, the terms of which series of preferred shares were previously agreed upon with Brookfield. See "*Capital and Loan Structure - Exchangeable Securities*".

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 December 31, 2019, TransAlta Corporation owned, directly or indirectly, approximately 60 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 per cent of TransAlta Renewables, which includes 37.52 per cent through direct ownership and 22.81 per cent through TransAlta Generation Partnership. The remaining approximately 40 per cent interest in TransAlta Renewables is publicly owned.

OVERVIEW

TransAlta

We are a leading provider of renewable and thermal-based energy with a 108-year history of powering economies and communities, safely, reliably and sustainably. Our vision is to be a global leader in clean energy with a commitment to a sustainable future. Our mission is to deliver to our customers power and power solutions that provide safe, low-cost and reliable clean energy. We apply our expertise, scale, and diversified fuel mix to capitalize on opportunities in our core markets and grow in areas where our competitive advantages can be deployed.

As we look to transition towards a more sustainable future, 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 – We are committed to the health and safety of our people and those with whom we work.
- Innovation – TransAlta has been a leader in clean electricity for over a century and will continue to be for the next century. Our goal is to continue to be a leader in clean electricity by finding new and innovative ways to power economies and communities.
- Sustainability – A strong business is only possible within a strong and equitable ecosystem.
- Respect – We value the perspectives and experiences of one another. Respect in the workplace and within our working relationships is paramount.
- Integrity – This is the foundation of our business. We always act with honesty, fairness and transparency. Our commitment is to do what we say we will do.

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 an aggregate net ownership interest in approximately 8,051 megawatts ("MW") of generating capacity. We operate facilities having approximately 8,978 MW of aggregate generating capacity. We are focused on generating and marketing electricity in Canada, the United States and Western Australia through our diversified portfolio of facilities fuelled by coal, natural gas, diesel, hydro, wind and solar.

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 a disciplined manner in a range of clean and renewable technologies such as wind, hydro, solar, battery and thermal (natural gas-fired and cogeneration) that produce electricity for industrial customers and communities to deliver returns to our shareholders.

On September 16, 2019, TransAlta announced its Clean Energy Investment Plan, which includes converting our existing Alberta coal assets to natural gas and advancing our leadership position in onsite generation and renewable energy. The Clean Energy Investment Plan provided further details of previously highlighted initiatives that TransAlta has been continuing to progress since early 2017. TransAlta is currently pursuing growth opportunities of \$1.8 billion to \$2.0 billion as part of this plan, including approximately \$800 million of renewable energy projects either recently completed or already under construction. The implementation and execution of TransAlta's Clean Energy Investment Plan, including the acceleration of certain features of that plan, is in large part being facilitated by the \$750 million strategic investment by Brookfield that we announced in March 2019 in response to feedback received from our shareholders during extensive engagement held in 2018 and 2019. The first \$350 million tranche of Brookfield's investment closed in May 2019 and facilitated the acceleration of our coal-to-gas conversion plan discussed below. The second \$400 million tranche of Brookfield's investment, anticipated to close in October 2020, will help further the advancement and implementation of the remainder of our Clean Energy Investment Plan, including our expected growth in renewables, while helping the Corporation maintain a strong balance sheet and financial flexibility to carry out the other pillars of our strategy discussed below.

On Jan. 16, 2020, TransAlta announced near-term objectives that further support the Clean Energy Investment Plan. In addition, we announced our 2020 sustainability targets.

Our strategic priorities are focused on the following outcomes:

1. Successfully execute our coal-to-gas conversions

We are transitioning our Alberta thermal fleet to natural gas, as part of our Clean Energy Investment Plan. We plan to invest between \$800 million to \$1.0 billion to convert or repower our Alberta thermal fleet to natural gas. This will repurpose and reposition our fleet to a cleaner gas-fired fleet and advance our leadership position in on-site generation while generating attractive returns by leveraging the Corporation's existing infrastructure.

TransAlta's Clean Energy Investment Plan includes converting three of our existing Alberta thermal units to gas in 2020 and 2021 by replacing existing coal burners with natural gas burners. The cost to convert each unit is expected to be approximately \$30 to \$35 million per unit.

The Clean Energy Investment Plan also includes permitting to repower the steam turbines at Sundance Unit 5 and Keephills Unit 1 by installing one or more combustion turbines and heat recovery steam generators, thereby creating highly efficient combined-cycle units. Repowered units are expected to have a 40 per cent lower capital investment when compared to a new combined-cycle facility while achieving a similar heat rate. The Clean Energy Investment Plan assumes there are no delays in securing the natural gas supply requirements, which may result from regulatory or other constraints.

The highlights of these gas conversion investments include:

- Positioning TransAlta's fleet as a low-cost generator in the Alberta energy-only market;
- Generating attractive returns by leveraging the Corporation's existing infrastructure;
- Significantly extending the life and cash flows of our Alberta thermal assets; and
- Significantly reducing air emissions and costs.

The following key achievements over the past year helped us advance this part of our strategy:

On December 17, 2018, the Corporation exercised our option to acquire 50 per cent ownership in the Pioneer gas pipeline (the "Pioneer Pipeline"). During the second quarter of 2019, the Pioneer Pipeline transported its first gas four months ahead of schedule to TransAlta's generating units at Sundance and Keephills. The Pioneer Pipeline initially had approximately 50 MMcf/day of natural gas flowing during the start-up phase where initial flows fluctuated depending on market conditions. Firm throughput of approximately 130 MMcf/day of natural gas began flowing through the Pioneer Pipeline on November 1, 2019. Tidewater Midstream and Infrastructure Ltd. ("Tidewater") and TransAlta each own a 50 per cent interest in the Pioneer Pipeline, which is backstopped by a 15-year take-or-pay agreement from TransAlta at market rate tolls. The investment for TransAlta, including associated infrastructure, was approximately \$100 million.

In 2019, we issued Full Notice to Proceed ("FNTP") to convert Sundance Unit 6 and Keephills Unit 2 to natural gas by replacing the existing coal burners with natural gas burners. We are targeting to complete the conversion of Sundance Unit 6 by the second half of 2020 and Keephills Unit 2 by the first half of 2021.

We expect to issue Limited Notice to Proceed ("LNTP") for Keephills Unit 3 during the first half of 2020 and expect to complete the conversion of that unit during 2021. We are evaluating the potential to install dual fuel capability at Keephills Unit 3 to ensure we have optimal fuel flexibility as we transition the fleet from coal to gas, and to manage any timing delays in obtaining full gas requirements that may occur due to regulatory or other constraints.

We are currently seeking regulatory permits to repower the steam turbines at Sundance Unit 5 and Keephills Unit 1 by installing combustion turbines and heat recovery steam generators, thereby creating highly efficient combined-cycle units. Repowered units are expected to have a 40 per cent lower capital investment when compared to a new combined-cycle facility while achieving a similar heat rate.

To advance this repowering strategy, on October 30, 2019, TransAlta acquired two 230 MW Siemens F-class gas turbines and related equipment for \$84 million. These turbines will be redeployed to our Sundance site as part of the strategy to repower Sundance Unit 5 to a highly efficient combined-cycle unit. We expect to issue LNTP in 2020 and FNTP in 2021 for Sundance Unit 5, with an expected commercial operation date in 2023. The Sundance Unit 5 repowered combined-cycle unit will have a capacity of approximately 730 MW and is expected to cost approximately \$750 million to \$770 million, well below a greenfield combined-cycle project. In conjunction with the Sundance Unit 5 permitting, we are also permitting Keephills Unit 1 to maintain the option to repower Keephills Unit 1 to a combined-cycle unit, depending on market fundamentals. As part of this transaction, we also acquired a long-term PPA for capacity plus energy, including the passthrough of greenhouse gas ("GHG") costs, starting in late 2023 with Shell Energy North America (Canada).

2. Deliver growth in our renewables fleet

We are further expanding our renewables platform. We currently have over \$400 million of renewable energy construction projects to be completed in 2020 and 2021. We completed and commissioned two wind farms in 2019 investing over \$340 million through TransAlta Renewables. Our focus is to ensure that we solidify returns through exceptional project execution and integration where we are able to commission and operate assets within our schedule and cost objectives.

The following key achievements in 2019 helped us advance this part of our strategy:

US Wind Projects

In 2019, we completed the construction of two wind projects (collectively, the "US Wind Projects") in the Northeastern US. The Big Level wind project ("Big Level") acquired on March 1, 2018, consists of a 90 MW project located in Pennsylvania that has a 15-year PPA with Microsoft Corp. The Antrim wind project ("Antrim") acquired on Mar. 28, 2019 consists of a 29 MW project located in New Hampshire with two 20-year PPAs with Partners Healthcare and New Hampshire Electric Co-op. Big Level and Antrim began commercial operations on Dec. 19, 2019, and Dec. 24, 2019, respectively. The US Wind Projects have added an additional 119 MW of generating capacity to our Wind and Solar portfolio.

Cost estimates for the US Wind Projects were reforecasted to be within the range of US\$250 million to US\$270 million, primarily due to construction and weather-related impacts as well as higher interconnection costs.

Windrise Wind Project

On December 17, 2018, TransAlta's 207 MW Windrise wind project was selected by the Alberta Electric System Operator ("AESO") as one of the three selected projects in the third round of the Renewable Electricity Program. TransAlta and the AESO executed a Renewable Electricity Support Agreement with a 20-year term. The Windrise project is situated on 11,000 acres of land located in the county of Willow Creek, Alberta, and is expected to cost approximately \$270 million to \$285 million. The project development work is on schedule. Windrise has secured approval for the facility from the Alberta Utilities Commission ("AUC") and is currently permitting transmission lines required to connect the facility to the Alberta grid. Construction activities will start in the second quarter of 2020 and the project is on track to reach commercial operation during the first half of 2021.

Skookumchuck Wind Project

On April 12, 2019, TransAlta signed an agreement with Southern Power to purchase a 49 per cent interest in the Skookumchuck wind project, a 136.8 MW wind project currently under construction and located in Lewis and Thurston counties near Centralia in Washington state. The project has a 20-year PPA with Puget Sound Energy. TransAlta has the option to make its investment when the facility reaches its commercial operation date, which is expected to be in the first half of 2020. TransAlta's 49 per cent interest in the total capital investment is expected to be approximately \$150 million to \$160 million, a portion of which is expected to be funded with tax equity financing.

WindCharger Project

During the first quarter of 2019, TransAlta approved the WindCharger project, an innovative energy storage project, which will have a nameplate capacity of 10 MW with a total storage capacity of 20 MWh. WindCharger is located in southern Alberta in the Municipal District of Pincher Creek next to TransAlta's existing Summerview Wind Farm Substation. WindCharger will store energy produced by the nearby Summerview II Wind Farm and discharge into the Alberta electricity grid at times of peak demand. This project is expected to be the first utility-scale battery storage facility in Alberta and will be receiving co-funding support from Emissions Reduction Alberta. Regulatory applications, including a facilities application to the AUC and an interconnection application to the AESO, were submitted in 2019. AUC approval was granted in November 2019 and the AESO approval is expected by the end of the first quarter of 2020. Detailed engineering designs, as well as the procurement of long-lead equipment, has been completed. Construction is on track to begin in March 2020 with a commercial operation date expected within the second quarter of 2020. The total expected cost of the project to TransAlta is \$7 million to \$8 million.

3. Expand presence in the US renewables market

We are focusing our business development efforts in the renewables segment of the US market. Demand for new renewables in the US is expected to grow in the near term. We currently have 2,000 MW at different stages in our development pipeline. These opportunities are expected to grow TransAlta Renewables, utilize its excess debt capacity and deliver stable dividends back to TransAlta.

In addition to the US Wind Projects and the Skookumchuck wind project discussed above, during 2019, TransAlta acquired a portfolio of wind development projects in the US. If we decide to move forward with any of these projects, additional consideration may be payable on a project-by-project basis only in the event a project achieves commercial operations prior to Dec. 31, 2025. If a decision is made to not move forward with a project or the costs are no longer considered to be recoverable, the costs are charged to earnings. Estimated returns on these projects and similar projects are sufficient to recover costs of unsuccessful development projects.

4. Advance and expand our on-site generation and cogeneration business

We will grow our on-site and cogeneration asset base, a business segment we have deep experience in, having provided on-site cogeneration services to various customers since the early 1990s. Our current pipeline under evaluation is approximately 900 MW and our technical design, operations experience and safety culture make us a strong partner in this segment. We see this segment growing as industrial and large-scale customers are looking to find solutions to help lower costs of power production, replace aging or inefficient equipment, reduce network costs and meet their ESG objectives.

Consistent with this strategy, on October 1, 2019, TransAlta and SemCAMS announced that they entered into definitive agreements to develop, construct and operate a cogeneration facility at the Kaybob South No. 3 sour gas processing plant. The Kaybob facility is strategically located in the Western Canadian Sedimentary Basin and accepts natural gas production out of the Montney and Duvernay formations. TransAlta will construct the cogeneration plant, which will be jointly owned, operated and maintained with SemCAMS. The capital cost of the new cogeneration facility is expected to be approximately \$105 million to \$115 million and the project is expected to deliver approximately \$18 million in annual EBITDA. TransAlta will be responsible for all capital costs during construction and, subject to the satisfaction of certain conditions, SemCAMS is expected to purchase a 50 per cent interest in the new cogeneration facility as of the commercial operation date, which is targeted for late 2021.

The highly efficient cogeneration facility will have an installed capacity of 40 MW. All of the steam production and approximately half of the electricity output will be contracted to SemCAMS under a 13-year fixed price contract. The remaining electricity generation will be sold into the Alberta power market by TransAlta. The agreement contemplates an automatic seven-year extension subject to certain termination rights. The development of the cogeneration facility at Kaybob South No. 3 is expected to eliminate the need for traditional boilers and reduce annual carbon emissions of the operation by approximately 100,000 tonnes carbon dioxide equivalent ("CO₂e"), which is equivalent to removing 20,000 vehicles off Alberta roads.

5. Maintain a strong financial position

We intend to remain disciplined in our capital investment strategy and continue to build on our already strong financial position.

We currently have access to \$1.7 billion in liquidity, including \$411 million in cash. During 2019, we entered into transactions to strengthen our position to execute on the Clean Energy Investment Plan including: (i) entering into an investment agreement with Brookfield providing us with \$750 million in strategic financing, (ii) increasing our credit facilities by \$200 million to a total of \$2.2 billion and extending the maturity of the term by one year, and (iii) successfully obtaining US\$126 million of tax equity financing associated with the US Wind Projects.

To further this strategy in 2020, we will repay the \$400 million bond maturing in November 2020 and continue our share buyback program in an amount up to \$80 million.

The Clean Energy Investment Plan will be funded from the cash raised through the strategic investment by Brookfield, cash generated from operations and raising capital through TransAlta Renewables.

In addition, we continue to execute on our multi-year Greenlight program that is focused on transforming our business and delivering TransAlta's strategy by reducing our cost structure. The program is entering its fourth year since implementation, and with each passing year it creates a continuous improvement culture that improves the way employees work together to deliver better business results. The program is focused on creating a structure around our people that enables them to identify, develop and deliver projects that improve performance across the Corporation with an emphasis on delivering sustainable value and cash flow improvements. Through the program, we have instituted ways to optimize our assets, minimize GHG emissions, reduce capital and operating costs, improve fuel usage and streamline processes. As this approach is increasingly embedded into the Corporation it has increased the empowerment of our employees, strengthened our processes and improved our corporate culture while reducing our operating costs.

Our Environmental, Social and Governance Leadership

Sustainability means ensuring that our financial returns consider short- and long-term economics, environmental impacts and societal and community needs. As we execute our strategy, our decisions are governed with a view to

also deliver on our ESG objectives. We have a long history of adopting leading sustainability practices, including 25 years of sustainability reporting and 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), the Task Force on Climate-related Financial Disclosures and the Canadian Council for Aboriginal Business. We have received a number of ESG rankings and recognition as a result of our early adoption of ESG practices.

In 1990, we were the first Canadian company to purchase carbon offsets and in 2000 we were an early adopter of wind power generation. Through our ongoing transformational efforts, we have reduced our total GHG emissions by 21.3 million tonnes since 2005. Our goal is to have no generation fuelled by coal by the end of 2025. The Corporation aligns its ESG targets with the UN Sustainable Development Goals.

The key components of our Corporation's approved 2020 ESG targets include:

- a continued focus on safe operations and environmentally sustainable practices, including minimizing environmental incidents and undertaking significant reclamation work;
- by 2030, achieving a 95% reduction in sulphur dioxide emissions and a 50% reduction of nitrogen oxide ("NOx") emissions over 2005 levels from our coal facilities, and a company-wide reduction in GHG emissions of 60% below 2015 levels;
- undertaking initiatives that will enhance the environmental performance of the Corporation, including converting coal facilities to natural gas and developing new renewable projects that support customer sustainability 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 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.

Our Capital Allocation and Financing Strategy

Our goal is to remain disciplined with our capital investment program and ensure that we continue to enhance our financial position. We are focused on strengthening our financial position and cash flow coverage ratios to ensure that a strong balance sheet is maintained and sufficient capital is available to execute our strategy.

Our goal is to return our deconsolidated debt levels to below a 3.0x debt-to-EBITDA ratio and to continue to pay and grow our dividend. We have adopted a debt-to-EBITDA target range of between 2.5 to 3.0x, based on TransAlta deconsolidated funds from operations.

We have also committed to a capital allocation program that provides investors with a line of sight on how we would consider changes into the future and provide further transparency on how the dividends that we receive from our ownership in TransAlta Renewables are either being returned to shareholders or reinvested at TransAlta. The Board adopted a dividend policy of returning between 10 per cent and 15 per cent of TransAlta deconsolidated funds from operations to common shareholders. In addition to the dividend, both on common and preferred shares, between 25 per cent to 35 per cent of capital is allocated towards sustaining and productivity capital, which ensures our existing assets continue to operate as efficiently as possible. Also included in our capital allocation program is to fund regular repayments on our amortizing debt. Once all of these items are considered, between 30 per cent to 50 per cent of deconsolidated funds from operations remain for the Corporation to allocate to growth projects, further debt reductions or to buy back shares.

We are confident that the above program 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

The Canadian Coal segment has a net ownership interest of approximately 3,032 MW of owned electrical generating capacity as well as our interest in the Pioneer Pipeline (discussed further below). The Pioneer Pipeline and all of the facilities in this segment are located in Alberta.

The US Coal segment holds our Centralia thermal plant, which represents a net ownership interest of 1,340 MW of owned electrical generating capacity. One of the units, which represents half of the facility's generating capacity, is scheduled to retire at the end of 2020. The Centralia plant is located in the State of Washington.

The Hydro segment has a net ownership interest of approximately 926 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 1,467 MW of owned electrical generating capacity and includes facilities located in Alberta, Ontario, New Brunswick, Québec, and the states of Massachusetts, Minnesota, New Hampshire, Pennsylvania and Wyoming.

The Canadian Gas segment has a net ownership interest of approximately 837 MW of owned electrical generating capacity and includes facilities held in Alberta and Ontario.

The Australian Gas segment has a net ownership interest of approximately 450 MW of owned electrical generating capacity and a pipeline located in Western Australia.

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 variety of markets.

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

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

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 Annual Information Form. TransAlta Renewables is one of the largest generators of wind power and among the largest publicly traded renewable power generation companies in Canada.

We formed TransAlta Renewables in 2013 to realize specific strategic and financial benefits, including: (i) establishing a focused vehicle for pursuing and funding growth opportunities in the renewable power and gas generation sector; (ii) unlocking the value of TransAlta's renewable asset platform; (iii) retaining TransAlta's majority ownership and operatorship of the underlying assets; (iv) providing proceeds of approximately \$200-\$250 million to repay debt and support TransAlta's balance sheet; and (v) creating additional financial flexibility for TransAlta by providing another source of capital with a separate cost of capital. We continue to realize the benefit of having assets with different risk/return profiles in two separate corporations as it enables each company to secure appropriate financing and investors. TransAlta holds mainly merchant assets in coal and hydro while TransAlta Renewables holds assets with long-term contracts generating stable cash flows in wind, solar and gas. TransAlta's majority ownership of TransAlta Renewables has facilitated the Corporation in its overall strategy of developing, constructing or acquiring additional renewable assets.

TransAlta Renewables, or one or more of its wholly owned subsidiaries, directly own certain of our wind, hydro and natural gas facilities. TransAlta Renewables also owns economic interests in a number of our other facilities. TransAlta Corporation 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 "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*".

TransAlta's Map of Operations

The following map outlines TransAlta's operations as of December 31, 2019.



Note:

(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.

GENERAL DEVELOPMENT OF THE BUSINESS

TransAlta is organized into eight business segments: Canadian Coal, US Coal, Canadian Gas, Australian Gas, Wind and Solar, Hydro, Energy Marketing and Corporate. The Canadian Coal, US Coal, Canadian Gas, Australian Gas, Wind and Solar, and Hydro segments are responsible for operating and maintaining our electrical generation and associated operations.

The Canadian Coal segment is also responsible for the operation and maintenance of our related mining operations and the operation of the Pioneer Pipeline in Alberta.

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. In addition to serving our assets, our marketing team actively markets energy products and services to energy producers and customers. This segment also encompasses the management of available generating capacity as well as the fuel and transmission needs of the generation businesses.

All the segments are supported by a Corporate segment, which includes the Corporation's central financial, legal, administrative, business development and investor relations functions.

Significant regulatory changes continue to have extensive impacts on the Corporation's business and strategy. In 2015, the Government of Alberta announced the Alberta Climate Leadership Plan that set goals to reduce carbon emissions and phase out pollution from coal-generated electricity by 2030. TransAlta responded quickly to this announcement and set down the path to fully transform itself into a leading clean energy company. Part of this strategy was to fully convert our existing coal fleet to natural gas, and our goal is to have no generation from coal by the end of 2025. In addition, we continue to expand our renewable generation and cogeneration fleet with numerous wind and gas projects currently under development. Throughout this transformation, we always keep our mission statement in mind: to provide safe, low-cost and reliable clean electricity to consumers and communities.

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 under the heading "*Business of TransAlta*".

Three-Year History

Generation and Business Development

2020

TransAlta Renewables Inc. Delivers on Two Contracted US Wind Projects

TransAlta Renewables announced on January 7, 2020, that the Big Level wind farm and the Antrim wind farm began commercial operation on December 19, 2019, and December 24, 2019, respectively. TransAlta Renewables has an economic interest in these two US wind farms. The 90 MW Big Level wind farm located in Pennsylvania is under a 15-year contract with Microsoft and the 29 MW Antrim wind farm located in New Hampshire is under two 20-year contracts with Partners Healthcare and New Hampshire Electric Co-op, respectively. All counterparties have a Standard & Poor's 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 farms. 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 farms, for US\$41 million and US\$85 million, respectively. The tax equity financing is classified as long-term debt on the statement of financial position.

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 will be used to repay TransAlta Renewables the principal and accrued interest outstanding on the interest-bearing promissory notes utilized to fund the construction.

2019

Advancing our 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 is estimated to be approximately \$30 million to \$35 million per unit.

The Corporation also advanced permitting to repower one, or possibly two, of its units to highly efficient combined cycle natural gas units. The highlights of these gas conversion investments include:

- positioning TransAlta's fleet as a low-cost generator in the Alberta energy-only market;
- generating attractive returns by leveraging the Corporation's existing infrastructure;
- significantly extending the life and cash flows of the Alberta thermal assets; and
- significantly reducing air emissions and costs.

The Corporation's Clean Energy Investment Plan also includes the Big Level and Antrim wind projects that were completed in December 2019, the Windrise and Skookumchuck wind projects that are currently under construction, and a cogeneration facility also under construction. These projects are underpinned by long-term PPAs with highly creditworthy counterparties. In addition, the Corporation is advancing the Windcharger project, an innovative battery storage project at one of its existing wind sites.

The Clean Energy Investment Plan will be funded from the cash raised in 2019 through the strategic investment with Brookfield (discussed further below), cash generated from operations, and raising capital through TransAlta Renewables.

As part of this Clean Energy Investment Plan, we are permitting to repower the steam turbines at Sundance Unit 5 and Keephills Unit 1 by installing one or more combustion turbines and heat recovery steam generators, thereby creating highly efficient combined cycle units. Repowered units are expected to have a 40 per cent lower capital investment when compared to a new combined cycle facility while achieving a similar heat rate. The plan assumes there are no delays in securing the natural gas supply requirements, which may result from regulatory or other constraints.

On October 30, 2019, we acquired two 230 MW Siemens F class gas turbines and related equipment for \$84 million. These turbines will be redeployed to our Sundance site as part of the strategy to repower Sundance Unit 5 to a highly efficient combined-cycle unit. We expect to issue Limited Notice To Proceed ("LNTP") in 2020 and Full Notice To Proceed ("FNTP") in 2021 for Sundance Unit 5, with an expected commercial operation date in 2023. The Sundance Unit 5 repowered combined cycle unit will have a capacity of approximately 730 MW and is expected to cost approximately \$750 million to \$770 million, well below a greenfield combined cycle project. In conjunction with the Sundance Unit 5 permitting, we are also permitting Keephills Unit 1 to maintain the option to repower Keephills Unit 1 to a combined cycle unit, depending on market fundamentals. In addition, we assumed a long-term power purchase agreements for capacity plus energy, including the pass-through of GHG costs, starting in late 2023 with Shell Energy North America (Canada).

Kaybob Generation Project

On October 1, 2019, we announced, together with SemCAMS Midstream ULC ("SemCAMS"), a subsidiary of SemGroup Corporation, that we had entered into definitive agreements to develop, construct and operate a cogeneration facility at the Kaybob South No. 3 sour gas processing plant. The Kaybob facility is strategically located in the Western Canadian Sedimentary Basin and accepts natural gas production out of the Montney and Duvernay formations. We will construct the cogeneration plant which will be jointly owned, operated and maintained with SemCAMS. The capital cost of the new cogeneration facility is expected to be approximately \$105 to \$115 million and the project is expected to deliver approximately \$18 million in annual EBITDA. TransAlta will be responsible for all capital costs during construction and, subject to the satisfaction of certain conditions, SemCAMS is expected to purchase a fifty per cent interest in the new cogeneration facility as of the commercial operation date, which is targeted for late 2021.

The highly efficient cogeneration facility will have an installed capacity of 40 MW. All of the steam production and approximately half of the electricity output will be contracted to SemCAMS under a 13-year fixed price contract. The remaining electricity generation will be sold into the Alberta Power market by TransAlta. The agreement contemplates an automatic 7-year extension subject to certain termination rights. The development of the cogeneration facility is expected to eliminate the need for traditional boilers and reduce annual carbon emissions at the operation by approximately 100,000 tonnes CO₂e which is equivalent to removing 20,000 vehicles off Alberta roads.

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

On August 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 October 1, 2019, we closed the transaction with Capital Power. As a result, we own 100% of the Keephills 3 facility and Capital Power owns 100% of the Genesee 3 facility. The transaction price for each non-operating interest largely offset each

other, resulting in a net payment of approximately \$10 million from Capital Power to TransAlta. Final working capital true-ups and settlements occurred in November 2019, with a net working capital difference of less than \$1 million paid by TransAlta to Capital Power.

Continued Energy-Only Market in Alberta

On July 25, 2019, we commented on the Government of Alberta's announcement that the energy-only market framework in Alberta will be maintained. The promise by the Alberta government to deliver a decision on market structure within 90 days was fulfilled and reduced the significant uncertainty for TransAlta in assessing investment decisions in power generation in the Alberta market. We undertook a review of our future investment decisions on coal-to-gas conversions and repowering investments, as well as impacts on hydro and wind assets under an energy-only market. The review concluded our current strategy is the best path forward under any market design and we continue to progress with our conversion strategy.

The energy-only market has been in place in Alberta since 2000. The structure ensures a competitive framework that is reliable for forecasting and assessing risk against major investments.

Favourable Keephills 1 Force Majeure Ruling

On June 26, 2019, the Court of Queen's Bench in Alberta upheld the decision of an independent arbitration panel, which confirmed that we were entitled to force majeure relief for the 2013 Keephills 1 forced outage. Our 395 MW Keephills 1 facility tripped off-line on March 5, 2013 due to a suspected winding failure within the generator. After extensive testing and analysis, it was determined a full rewind of the generator stator was required. The unit returned to service on October 6, 2013. On November 13, 2019, the buyer under this power purchase arrangement and the Balancing Pool sought permission from the Alberta Court of Appeal to appeal the Court of Queen's Bench decision. Permission was granted on February 13, 2020. TransAlta will continue to defend the arbitration award, with the appeal application before the Alberta Court of Appeal likely scheduled for the fall of 2020.

Skookumchuck Wind Project

On April 12, 2019, TransAlta signed an agreement with Southern Power to purchase a 49 per cent interest in the Skookumchuck wind energy facility located in Lewis and Thurston counties near Centralia in the State of Washington. This is 136.8 MW wind facility currently under construction. The project has a 20-year PPA with Puget Sound Energy. TransAlta expects to make its investment when the facility reaches its commercial operation date, which is expected to be in the first half of 2020. TransAlta's 49 per cent interest in the total capital investment is expected to be approximately \$150 to \$160 million, a portion of which is expected to be funded with tax equity financing.

Strategic Investment by Brookfield Renewable Partners

On March 25, 2019, we announced a strategic investment by Brookfield that crystallizes the future value of our Hydro Assets, enhances our financial position to execute our strategy, accelerates the opportunity to return capital to shareholders and provides TransAlta with a partner who has world-class expertise in renewable power platforms and hydroelectric generation. This investment ensures TransAlta will transition to 100 per cent clean energy by 2025.

Under the terms of an investment agreement (the "Investment Agreement"), Brookfield agreed to invest \$750 million in TransAlta through the purchase of exchangeable securities (described below), 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. In addition, subject to the exceptions in the Investment Agreement, Brookfield has committed to purchase TransAlta common shares on the open market to increase its share ownership in TransAlta to 9%. We are working to complete our transition to clean energy, maximize the value of the Hydro Assets, and create long-term shareholder value. On May 1, 2019, Brookfield invested the initial tranche of \$350 million in exchange for 7% unsecured subordinated debentures due May 1, 2039. The remaining \$400 million will be invested in October 2020 in exchange for a new series of redeemable, retractable first preferred shares, subject to certain conditions being met.

Benefits of the investment are highlighted below:

- significant \$750 million capital injection which will be used to advance our coal-to-gas transition strategy, advance the development of existing and new growth projects and for general corporate purposes;
- recognizes the future anticipated value of our Hydro Assets;
- creates a long-term cornerstone shareholder;
- strengthens our operating capabilities;
- accelerates the return of capital to shareholders through share buy backs; and
- adds extensive renewables experience and expertise by electing two experienced Brookfield directors, Harry Goldgut and Richard Legault to our Board of Directors.

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 issued to Brookfield on May 1, 2019, the registration rights agreement entered into with Brookfield in respect of common shares held in TransAlta, and the exchange and option agreement with Brookfield governing the terms of the exchange of the exchangeable securities issued under the investment, are also available on SEDAR and on EDGAR. Shareholders are urged to read these documents in their entirety.

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 below Sundance Units:

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

The extensions were requested by us based on the Corporation's assessment of market prices and market conditions. We can return either of the units back to full operation by providing three months' notice to the AESO.

2018

Pioneer Pipeline

On December 17, 2018, we exercised our option to acquire 50 per cent ownership in the Pioneer Pipeline. During the second quarter of 2019, the Pioneer Pipeline transported first gas four months ahead of schedule to our generating units at Sundance and Keephills. The Pioneer Pipeline initially had approximately 50 MMcf/day of natural gas flowing during the start-up phase where initial flows fluctuated depending on market conditions. Firm throughput of approximately 130 MMcf/day of natural gas commenced flowing through the Pioneer Pipeline on November 1, 2019. Tidewater Midstream and Infrastructure Ltd. ("Tidewater") and TransAlta each own a 50 per cent interest in the Pioneer Pipeline which is backstopped by a 15-year take-or-pay agreement from TransAlta at market rate tolls. The pipeline investment, including associated infrastructure, was approximately \$100 million.

Alberta Renewable Energy Program Project - Windrise

On December 17, 2018, our 207 MW Windrise wind project was selected by the AESO as one of the three selected projects in the third round of the Renewable Electricity Program. TransAlta and the AESO executed a Renewable Electricity Support Agreement with a 20-year term. The Windrise project is situated on 11,000 acres of land located in the county of Willow Creek, Alberta and is expected to cost approximately \$270 million to \$285 million. The project development work is on schedule on track to reach commercial operation during the first half of 2021.

TransAlta Renewables' New Brunswick wind power expansion complete

On October 19, 2018 TransAlta Renewables announced that the 17.25MW expansion of the wind facility at Kent Hills, in New Brunswick reached commercial operation, bringing total generating capacity to 167 MW. Under the 17-year PPA, New Brunswick Power Corporation receives both energy to the province's electricity grid and renewable energy credits ("RECs"). The Kent Hills 3 expansion is located on approximately 20 acres of Crown Land and consists of five Vestas V126 turbines. Natural Forces Technologies Inc., a wind-energy developer based in Atlantic Canada, co-developed and co-owns the wind farm with TransAlta Renewables.

Retirement of Sundance Unit 1 and Unit 2 and Mothball Schedule Update

Effective July 31, 2018, we 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. In addition to the retirement of Sundance Unit 2 our mothball outage schedule had been updated to provide for the following (Sundance Unit 1 has been permanently shutdown since January 1, 2018 and Sundance Unit 3 and Sundance Unit 5 have been mothballed since April 1, 2018): (i) Sundance Unit 3 will continue to be mothballed up to November 1, 2021 (extended from the previous date of April 1, 2020); and (ii) Sundance Unit 5 will continue to be mothballed up to November 1, 2021 (extended from the previous date of April 1, 2020).

Sale of Three Renewable Assets

On May 31, 2018, TransAlta Renewables acquired from us an economic interest in the 50 MW Lakeswind Wind Farm in Minnesota and 21 MW of solar projects located in Massachusetts. In addition, TransAlta Renewables acquired ownership of the 20 MW Kent Breeze Wind Farm located in Ontario. The total purchase price payable for the three

assets, which had an average weighted contract life of 15 years, was \$166 million, including the assumption by TransAlta Renewables of \$62 million of tax equity obligations and project debt. TransAlta Renewables funded the equity portion of the acquisitions using its existing liquidity. On June 28, 2018, TransAlta Renewables subscribed for an additional \$33 million (US\$25 million) of tracking preferred shares of a subsidiary of TransAlta, in order to fund the repayment of Mass Solar's project debt.

Acquisition of US Wind Projects

On February 20, 2018, TransAlta Renewables entered into an arrangement to acquire economic interests in the Big Level and Antrim wind farms. On February 28, 2018 TransAlta Renewables acquired tracking preferred shares from the Corporation that provide TransAlta Renewables with an economic interest in the Big Level and Antrim wind farms. The Big Level and Antrim wind farms began commercial operation on December 19, 2019 and December 24, 2019, respectively. See "*2020 - TransAlta Renewables Inc. Delivers on Two Contracted US Wind Projects.*"

2017

Acceleration of the Conversion from Coal-to-Gas

On December 6, 2017, we announced the acceleration of the conversion of Sundance Units 3 to 6 and Keephills Units 1 and 2 from coal-fired generation to gas-fired generation in 2021 or 2022, a year earlier than originally planned. We also announced the temporary mothballing of a combination of Sundance units in 2018 and 2019 to enable two Sundance coal units to operate at high capacity utilizations with lower costs through to 2020.

Status of Commercial Operations at South Hedland Facility

On August 1, 2017, we responded to Fortescue Metals Group Ltd.'s ("FMG") view that the South Hedland facility has not yet achieved commercial operation. In our view, all the conditions to establishing that commercial operations have been achieved under the terms of the power purchase agreement with FMG have been satisfied in full. These conditions include receiving a commercial operation certificate, successfully completing and passing certain test requirements, and obtaining all permits and approvals required from the North West Interconnected System and government agencies. On November 13, 2017, we received formal notice of termination of the South Hedland Power Purchase Agreement ("South Hedland PPA") from FMG. We commenced proceedings in the Supreme Court of Western Australia on December 4, 2017, to recover amounts invoiced under the South Hedland PPA. The South Hedland facility has been fully operational and able to meet FMG's requirements under the terms of the South Hedland PPA since July 2017. See "*Legal Proceedings and Regulatory Actions*" for further information.

Fortescue Metals Group's Notice to Repurchase the Solomon Facility

On August 1, 2017, we received notice of FMG's intention to repurchase the Solomon facility from TEC Pipe Pty Ltd. ("TEC Pipe"), a wholly-owned subsidiary of the Corporation, for approximately US\$335 million. A dispute does exist between TransAlta and FMG related to the transfer of the Solomon facility to FMG. FMG claims certain amounts related to the condition of the facility while TransAlta claims certain outstanding costs that should be reimbursed. A trial date for this matter has not yet been scheduled but it will likely not occur until 2021.

Sale of Interest in Wintering Hills Facility

On March 1, 2017, we sold our 51 per cent interest in the Wintering Hills merchant wind facility near Drumheller, Alberta for approximately \$61 million. Proceeds from the sale were used for general corporate purposes, including to reduce debt and to fund future renewables growth, including potential contracted renewable opportunities in Alberta.

Corporate and Energy Marketing

2020

TransAlta Declares Increased Common Dividend and Appoints John P. Dielwart as the next Chair of the Board

We announced that the Board of Directors determined that following the retirement of Ambassador Gordon D. Giffin at the 2020 annual shareholder meeting, John P. Dielwart will be appointed successor Chair of the Board effective immediately following our 2020 annual meeting of shareholders and subject to him being re-elected to the Board at the 2020 meeting.

In addition, we declared an increase in the annualized dividend to \$0.17 per common share, representing a 6.25 per cent increase.

2019

Favourable Conclusion Regarding the Sundance B and C Power Purchase Arrangements Termination Payment

On August 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 Power Purchase Arrangements ("PPA"). As a result of the arbitration decision, we received the full amount we had been seeking to recover, being equal to \$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.

Normal Course Issuer Bid

On May 27, 2019, the Toronto Stock Exchange ("TSX") accepted our notice to implement a normal course issuer bid ("NCIB"). Pursuant to the NCIB, we may purchase up to a maximum of 14,000,000 of our common shares. Purchases under the NCIB may be made through open market transactions on the TSX and any alternative Canadian trading platforms on which our common shares are traded, based on the prevailing market price and subject to certain limitations. Any common shares purchased under the NCIB will be cancelled. For the period from May 29, 2019 to March 2, 2020 we purchased and cancelled a total of 7,716,300 common shares at an average price of \$8.80 per common share for a total cost of approximately \$68 million. In connection with the Brookfield investment, the Corporation committed to returning up to \$250 million to our holders of common shares through share purchases.

Appointment of Chief Financial Officer

On May 16, 2019, we appointed Todd Stack as our Chief Financial Officer. Mr. Stack, who has served as Managing Director and Corporate Controller of the Corporation since February 2017, has been responsible for providing leadership and direction over TransAlta's financial activities, corporate accounting and reporting, tax, and corporate planning.

Board of Director Nominations

Concurrent with the strategic investment by Brookfield, we announced the inclusion of three experienced nominees for our slate of directors at the 2019 Annual and Special Meeting of shareholders. The nominees included Harry Goldgut, Richard Legault and Robert Flexon. All three nominees, along with all other board nominees, were elected to the Board of Directors at the Annual and Special Meeting of shareholders on April 26, 2019. Messrs. Legault and Goldgut are Brookfield's current nominees on the Board. Pursuant to the Investment Agreement with Brookfield, for so long as Brookfield owns the exchangeable securities issued to it under the Investment, it has the right to nominate two members for election to the TransAlta Board at each annual meeting of shareholders.

2018

Redemption of Medium Term Notes

On August 2, 2018 we redeemed all of our then outstanding 6.40 per cent Medium Term Notes, due November 18, 2019 in the aggregate principal amount of \$400 million (the "Notes"). The redemption price for these Notes was \$1,061,736 per \$1,000 principal amount of the Notes (representing, in aggregate, \$425 million) including a prepayment premium and accrued and unpaid interest on the Notes to the redemption date.

\$345 Million Bond Offering

On July 20, 2018 our indirect wholly owned subsidiary, TransAlta OCP LP (the "TransAlta OCP"), issued approximately \$345 million of bonds, sold by way of a private placement, which are secured by, among other things, a first-ranking charge over all but a nominal percentage of the equity interests in TransAlta OCP and its general partner, and a first-ranking charge over all of the TransAlta OCP's accounts and certain other assets. The amortizing bonds bear interest from their date of issue at a rate of 4.509 per cent per annum, payable semi-annually and mature on August 5, 2030.

TransAlta Renewables Completes \$150 Million Bought Deal Offering of Common Shares

On June 22, 2018, TransAlta Renewables issued, pursuant to an underwritten offering on a bought deal basis, 11,860,000 common shares in the capital of TransAlta Renewables at a price of \$12.65 per share for gross proceeds to TransAlta Renewables of approximately \$150 million. As a result of the offering, our interest in TransAlta Renewables was reduced from approximately 64 per cent to 61 per cent.

Mr. Bryan Pinney Joins the Board of Directors

At our 2018 annual and special meeting of shareholders held on April 20, 2018, Mr. Bryan Pinney was elected as a new member of the Board of Directors, replacing Mr. Thomas Jenkins. Mr. Pinney has over 30 years of experience serving

many of Canada's largest corporations, primarily in energy and resources and construction. Mr. Pinney was a partner with Deloitte between 2002 and 2015. Mr. Pinney served as Calgary Managing Partner from 2002 through 2007, as National Managing Partner of Audit & Assurance from 2007 to 2011 and as Vice-Chair until June 2015.

Normal Course Issuer Bid

On March 9, 2018, the TSX accepted our notice to implement an NCIB. Pursuant to the NCIB, we may purchase up to a maximum of 14,000,000 of our common shares. Purchases under the NCIB may be made through open market transactions on the TSX and any alternative Canadian trading platforms on which our common shares are traded, based on the prevailing market price and subject to certain limitations. For the period March 14, 2018 to March 13, 2019, we purchased and cancelled a total of 3,264,500 common shares under this NCIB at an average price of \$7.02 per common share for a total cost of approximately \$23 million.

Redemption of Senior Notes

On March 15, 2018, we redeemed all of our then outstanding US\$500 million 6.65 per cent senior notes maturing May 15, 2018. The redemption price for the notes was approximately \$617 million, including a \$5 million early redemption premium and accrued and unpaid interest on the notes to the redemption date.

2017

New Brunswick Wind Asset Project Financing

On October 2, 2017, TransAlta Renewables completed a \$260 million bond offering on behalf of its indirect wholly-owned subsidiary, Kent Hills Wind LP, which is secured by a first ranking charge over all assets of Kent Hills Wind LP. The bonds are amortizing and bear interest from their date of issue at a rate of 4.454 per cent, payable quarterly and mature on November 30, 2033. Net proceeds were used to fund a portion of the construction costs for the 17.25 MW Kent Hills 3 expansion, which achieved commercial operation in October 2018, and to make advances to Canadian Hydro Developers, Inc. ("CHD") and to an affiliate of Natural Forces Technologies Inc., the Corporation's partner who owns approximately 17 per cent of Kent Hills Wind LP. The proceeds of the advances to CHD were used to redeem all of CHD's outstanding debentures.

The Honourable Rona Ambrose Joins the Board of Directors

Effective July 17, 2017, our Board of Directors appointed the Honourable Rona Ambrose to our Board of Directors. The Honourable Rona Ambrose is the former Leader of Canada's Official Opposition in the House of Commons and former leader of the Conservative Party of Canada. She also acted as Minister of the Crown across nine government departments, including serving as Vice-Chair of the Treasury Board and Chair of the cabinet committee for public safety, justice and aboriginal issues.

Balancing Pool Terminates the Sundance Alberta Power Purchase Arrangements

On September 18, 2017, we received formal notice from the Balancing Pool for the termination of the Alberta Power Purchase Arrangements for Sundance Unit B and Unit C effective March 31, 2018. We subsequently received \$157 million in the first quarter of 2018 as a result of the PPA termination.

BUSINESS OF TRANSALTA

Our Canadian Coal, US Coal, Wind and Solar, Hydro, Canadian Gas and Australian Gas business segments are responsible for operating and maintaining our electrical generation facilities as well as the related mining operations in Canada and the US. The Energy Marketing segment is responsible for marketing our production and securing cost effective and reliable fuel supply. All the segments are supported by a Corporate segment.

As the Corporation transforms into a leading clean energy company, it is expected that the proportion of revenue attributable to the Canadian Coal and US Coal business will decline relative to the other business units. In addition, the Corporation 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 December 31, 2019:

	<u>2019 Revenues</u> ⁽¹⁾	<u>2018 Revenues</u> ⁽¹⁾
Canadian Coal	35%	41%
US Coal	24%	20%
Canadian Gas	9%	10%
Australian Gas	7%	7%
Wind and Solar	13%	12%
Hydro	7%	7%
Energy Marketing	5%	3%

Notes:

(1) Includes 100% 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, please refer to Note 5 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. See "Documents Incorporated by Reference" in this AIF.

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

Canadian Coal Business Segment

The following table summarizes our Canadian Coal generation facilities as at December 31, 2019:

Facility Name	Province	Ownership (%)	Net Capacity Ownership Interest (MW)	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Keephills Unit No. 1 ⁽³⁾	AB	100	395	1983	Alberta PPA/Merchant	2020
Keephills Unit No. 2 ⁽³⁾	AB	100	395	1984	Alberta PPA/Merchant	2020
Keephills Unit No. 3 ⁽⁶⁾	AB	100	463	2011	Merchant	-
Sheerness Unit No. 1 ⁽⁴⁾	AB	25	100	1986	Alberta PPA/Merchant	2020
Sheerness Unit No. 2	AB	25	98	1990	Alberta PPA	2020
Sundance Unit No. 3 ⁽⁵⁾⁽⁷⁾	AB	100	368	1976	Merchant	-
Sundance Unit No. 4 ⁽⁵⁾	AB	100	406	1977	Merchant	-
Sundance Unit No. 5 ⁽⁵⁾⁽⁷⁾	AB	100	406	1978	Merchant	-
Sundance Unit No. 6 ⁽⁵⁾	AB	100	401	1980	Merchant	-
Pioneer Pipeline	AB	50	N/A	2019	LTC	2034
Total Canadian Coal Net Capacity			3,032			

Notes:

(1) MW are rounded to the nearest whole number. Column may not add due to rounding.

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

(3) Merchant capacity includes a 12 MW uprate on units 1 and 2, which began operation in the second quarter of 2012.

(4) Merchant capacity includes a 10 MW uprate completed in the first quarter of 2016.

(5) The Balancing Pool elected to terminate the Sundance B PPA and Sundance C PPA effective on or before March 31, 2018.

(6) TransAlta and Capital Power completed an asset swap between Keephills Unit 3 and Genesee Unit 3 on October 1, 2019 pursuant to which TransAlta became the 100% owner of Keephills Unit 3 and no longer owns an interest in Genesee Unit 3.

(7) Unit mothballed up to November 1, 2021.

Keephills & Sundance

Keephills Unit 1 and 2 and the Sundance facilities are located approximately 70 kilometres west of Edmonton, Alberta, and are both owned by TransAlta. Keephills Unit 1 and Unit 2 each have a maximum capacity of 395 MW.

On September 18, 2017, we received formal notice from the Balancing Pool for the termination of Alberta Power Purchase Arrangements for Sundance Unit B (3 & 4) and Unit C (5 & 6) effective March 31, 2018. As a result, Sundance 4 and 6 have since been operating on a merchant basis within the Alberta market. Upon expiry of the Alberta PPAs,

Keephills 1 and 2 units will be merchant and dispatched to take advantage of price volatility in the Alberta energy-only electricity market and to provide ancillary services and, as such, will be part of our Alberta electricity portfolio optimization activities.

As part of our Clean Energy Investment Plan, we intend to convert coal-fired units into gas units through either a simple boiler conversion, or a more involved project to build a repowered combined cycle unit using existing and new assets. Our base plan involves three boiler conversions in the 2020 to 2021 period.

In 2019, we issued Full Notice to Proceed ("FNTP") to convert Sundance 6 and Keephills Unit 2 to natural gas by replacing the existing coal burners with natural gas burners. We are targeting to complete the conversion of Sundance Unit 6 by the second half of 2020 and Keephills Unit 2 by the first half of 2021.

We anticipate issuing Limited Notice to Proceed ("LNTP") for Keephills Unit 3 during the first half of 2020 and expect to complete the conversion of that unit during 2021. We are evaluating the potential to install dual-fuel capability at this unit to ensure we have optimal fuel flexibility as we transition the fleet from coal to gas, and to manage any timing delays in getting full gas requirements that may occur due to regulatory processes or other constraints.

We are currently seeking regulatory permits to repower the steam turbines at Sundance 5 and Keephills 1 by installing combustion turbines and heat recovery steam generators, thereby creating highly efficient combined-cycle units. Repowered units are expected to have a 40 per cent lower capital investment when compared to a new combined cycle facility while achieving a similar heat rate.

We have acquired two 230 MW Siemens F-class gas turbines and related equipment that will be redeployed to our Sundance site to repower our Sundance Unit 5 to a highly efficient combined-cycle unit. We also acquired a long-term non-unit contingent PPA for capacity plus energy, including the pass-through of GHG costs, starting in late 2023 with Shell Energy North America (Canada). We expect to issue LNTP in 2020 and FNTP in 2021 for Sundance 5 with an expected commercial operation date in 2023. The repowered combined cycle unit will have a capacity of approximately 730 MW. We are also concurrently permitting Keephills 1 to a combined-cycle unit depending on future market fundamentals.

Mothball of Sundance Units

On April 1, 2018, we mothballed Sundance Unit 3 and Sundance Unit 5. In early 2019, the AESO granted an extension to the continued mothballing of Sundance Units 3 and 5. The units will remain mothballed up to November 1, 2021 (extended from April 1, 2020). The extensions were requested by TransAlta based on our assessment of market prices and market conditions. TransAlta has the ability to return either of these unit back to full operation by providing three months' notice to the AESO.

The decision to mothball selected units ensures that the remaining units operate at high capacity utilization factors and competitive cost structures. See "*General Development of the Business - Three-Year History - Generation and Business Development*".

Sundance 1 and 2

On January 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 retirement is consistent with our transition to clean power strategy.

Keephills 3 & Genesee 3

TransAlta and Capital Power formerly had joint venture arrangements through which each had a 50 per cent ownership interest of the Keephills 3 facility and Genesee 3 facility. The Genesee 3 facility, located approximately 50 kilometres west of Edmonton, was jointly owned with Capital Power. Capital Power was responsible for the operation of Genesee 3. TransAlta was responsible for operating the Keephills 3 facility. Keephills 3 began commercial operations on September 1, 2011. Each partner independently dispatched and marketed its share of the unit's electrical output. The Corporation provides the coal fuel to the Keephills 3 facility from its Highvale mine.

On October 1, 2019 TransAlta and Capital Power completed an agreement to swap interests in the Keephills 3 facility and the Genesee 3 facility. As a result, TransAlta now owns 100 per cent of the Keephills 3 facility and Capital Power now owns 100 per cent of the Genesee 3 facility. On closing of the transaction, all of the Keephills 3 and Genesee 3 project agreements with Capital Power were terminated.

Highvale Mine

Fuel requirements for the Alberta thermal coal generation facilities that we operate are supplied by a surface strip coal mine located in close proximity to the facilities. We own the Highvale mine that supplies coal to the Sundance and Keephills facilities and perform the mining, reclamation and associated work at the Highvale mine. We estimate that the recoverable coal reserves contained in this mine are sufficient to supply the anticipated requirements for the life of the facilities it serves.

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.

Sheerness 1 & 2

The Sheerness facilities are located approximately 200 kilometres northeast of Calgary, Alberta and is jointly owned by TransAlta Cogeneration LP ("TA Cogen") and Heartland Generation Ltd. ("Heartland"). Heartland is responsible for the operation and maintenance of these units. Coal for the Sheerness facilities is provided from the adjacent Sheerness mine. The coal reserves of the mine are owned, leased or controlled jointly by TA Cogen, Heartland and Westmoreland Coal. TA Cogen and Heartland have entered into coal supply agreements with Westmoreland Coal, which operates the mine. See "*Business of TransAlta – Non-Controlling Interests*".

Sheerness Unit 2 will be converted to gas by Heartland during the first quarter of 2020.

Off-Coal Agreement

On November 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, Genesee 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 December 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 plants and the employees of the Corporation 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. See "*General Development of the Business - Three-Year History - Generation and Business Development*".

Pioneer Pipeline

As part of our conversion strategy to convert our Canadian Coal business to gas-powered generation, we exercised our option to acquire 50 per cent ownership in the Pioneer gas pipeline which transports gas to the Keephills and Sundance facilities. We and Tidewater each own a 50 per cent interest in the Pioneer gas pipeline which is backstopped by a 15-year take-or-pay agreement from TransAlta at market rate tolls.

During the second quarter of 2019, the Pioneer Pipeline transported its first gas four months ahead of schedule. The 130 km pipeline initially had approximately 50 MMcf/day of natural gas flowing during the start-up phase where initial flows fluctuated depending on market conditions. Firm throughput of approximately 130 MMcf/day of natural gas began flowing through the Pioneer Pipeline on November 1, 2019. The pipeline has the potential to expand to approximately 440 MMcf/d. The Pioneer Pipeline not only supplies gas to the units once fully converted, it also allows us to currently co-fire using a blend of natural gas and coal.

Canadian Gas Business Segment

The following table summarizes our Canadian natural gas-fired generation facilities as at December 31, 2019:

Facility Name	Province/ State	Ownership (%)	Net Capacity Ownership Interest (MW)	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Fort Saskatchewan ⁽⁵⁾	AB	30	35	1999	Dow Chemical/ Merchant	2029
Poplar Creek ⁽⁴⁾	AB	100	230	2001	Suncor	2030
Ottawa ⁽⁵⁾	ON	50	37	1992	LTC/Merchant	2020-2033
Sarnia ⁽³⁾	ON	100	499	2003	LTCs	2022-2025
Windsor ⁽⁵⁾	ON	50	36	1996	IESO/Merchant	2031
Total Canadian Gas Net Capacity ⁽⁶⁾			837			

Notes:

(1) MW are rounded to the nearest whole number. Net Capacity Ownership Interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at December 31, 2019, TransAlta owns, 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) Facility is owned by TransAlta Renewables.

(4) The Poplar Creek plant is operated by Suncor Energy Inc. and ownership of the facility will transfer to Suncor in 2030.

(5) Our interests in these facilities are through our ownership interest in TA Cogen.

(6) Excludes the Kaybob facility which is an asset under construction.

Fort Saskatchewan

We have a net ownership interest of 30 per cent in the Fort Saskatchewan facility. See "*Business of TransAlta – Non-Controlling Interests*". The 118 MW natural gas-fired combined-cycle cogeneration Fort Saskatchewan plant is owned by TA Cogen and Prairie Boys Capital Corporation (previously known as Strongwater Energy Ltd). During the fourth quarter of 2017, we entered into a long-term contract for the Fort Saskatchewan facility providing for the delivery of energy and steam to the customer. The contract has an initial 10-year term, which commenced on January 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 plant.

Poplar Creek

Our Poplar Creek plant is located in Fort McMurray, Alberta. On August 31, 2015, the Corporation restructured its contractual arrangement for the power generation services of its Poplar Creek plant. 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 Corporation 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 Corporation's gas generators until December 31, 2030. Ownership of the entire Poplar Creek cogeneration facility will transfer to Suncor in 2030.

Mississauga

The Mississauga cogeneration facility is owned by TA Cogen. See "*Business of TransAlta – Non-Controlling Interests*". It is a combined-cycle cogeneration facility designed to produce 108 MW of electrical energy. The capacity was contracted under a long-term contract with the Independent Electricity System Operator ("IESO"). In December 2016, we agreed to terminate our existing arrangement with the IESO and entered into a new Non-Utility Generator ("NUG") Enhanced Dispatch Contract effective January 1, 2017. Under the new NUG Contract, we received fixed monthly payments until December 31, 2018 with no delivery obligations. With the expiry of this NUG Contract, in December 2018 TransAlta exercised its option to terminate its land lease agreement with Boeing Canada Inc. effective December 31, 2021. TransAlta is now required to remove the plant and restore the site within the three-year time frame. Decommissioning work is scheduled to begin in early 2020 and will be completed by the end of year, including all remediation and restoration work required to return the property to its original condition.

Ottawa

The Ottawa plant is owned by TA Cogen. See "*Business of TransAlta – Non-Controlling Interests*". It is a combined-cycle cogeneration facility designed to produce 74 MW of electrical energy. On August 30, 2013, the Corporation announced the recontracting of the plant with the IESO for a 20-year term, effective January 2014. The Ottawa plant also provides steam, hot water, and chilled water 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 expires January 1, 2024.

Sarnia

The Sarnia Plant is a 499 MW combined-cycle cogeneration facility located in Sarnia, Ontario. The plant 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 under contracts terminating in 2022. We are currently evaluating potential extensions to these power and steam off-take agreements. The facility also provides electricity to the IESO under a contract that terminates December 31, 2025. In the first quarter of 2020, the Corporation executed a 30 MW PPA for a five-year initial term with a leading financial technology company that will be located at the Corporation's Bluewater Energy Park at Sarnia.

The Sarnia Plant utilizes 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 plant 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 does not impact the plant's ability to meet its contractual requirements.

Windsor

The Windsor plant is owned by TA Cogen. See "*Business of TransAlta - Non-Controlling Interests*". It is a combined-cycle cogeneration facility designed to produce 72 MW of electrical energy, of which, 50 MW was sold under a long-term contract to the Ontario Electricity Financial Corporation ("OEFC"). This agreement with the OEFC expired November 30, 2016. Effective December 1, 2016, the Windsor plant began operating under an agreement with the IESO with a 15-year term for up to 72 MW of capacity. The Windsor plant also provides thermal energy to Fiat Chrysler Automobiles Canada Inc.'s minivan assembly facility in Windsor under a contract that expires in November 2020.

Kaybob Cogeneration

TransAlta and SemCAMs entered into definitive agreements to develop, construct and operate a new cogeneration facility at the Kabob South No. 3 sour gas processing plant. The Kaybob facility is strategically located in the Western Canadian Sedimentary Basin and accepts gas production out of the Montney and Duvernay formations. The cogeneration facility will have an installed capacity of 40 MW. All of the steam production and approximately half of the electricity output will be contracted to SemCAMs under a 13-year fixed price contract. The remaining electricity generation will be sold into the Alberta power market by TransAlta. The agreement contemplates an automatic seven year extension subject to certain termination rights.

Australian Gas Business Segment

The following table summarizes our Australian assets:

Facility Name	Province/ State	Ownership (%)	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date
Parkeston ⁽²⁾⁽³⁾	WA ⁽⁴⁾	50	55	1996	Newmont Power Pty Ltd.	2026
South Hedland ⁽²⁾	WA ⁽⁴⁾	100	150	2017 ⁽⁵⁾	LTCs ⁽⁶⁾	2042
Southern Cross Energy ⁽²⁾⁽⁷⁾	WA ⁽⁴⁾	100	245	1996	BHP Billiton Nickel West Pty Ltd	2023
Fortescue River Gas Pipeline	WA ⁽⁴⁾	43	N/A	2015	Fortescue Metals Group	2035
Total Australian Gas Net Capacity			450			

Notes:

- (1) MW are rounded to the nearest whole number. Net Capacity Ownership Interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at December 31, 2019, TransAlta owned approximately 60 per cent of the common shares in TransAlta Renewables.
- (2) TransAlta Renewables owns an economic interest in the facility.
- (3) Plant contracted to October 2026 with early termination options beginning in 2021.
- (4) Western Australia.
- (5) Fortescue Metals Group ("FMG") is contracted for 23% of the capacity, with Horizon Power contracting for the remaining 77% of capacity. FMG is disputing the Corporation's declaration of commercial operation date. See "*Legal Proceedings and Regulatory Actions*".
- (6) Long-term contracts with two counterparties: Horizon Power and FMG. On November 13, 2017, FMG purported to terminate the PPA for South Hedland
- (7) Comprised of four 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 an economic interest based on the cash flows broadly equal to the underlying net distributable cash flow of TEA, in consideration for a payment equal to \$1.78 billion, which amount included funding the remaining construction costs for South Hedland.

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 plant 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 NP Kalgoorlie Pty Ltd., a subsidiary of Newmont Australia Limited. The Parkeston facility primarily supplies energy to Kalgoorlie Consolidated Gold Mines and the initial supply contract ended in 2016. The plant was re-contracted effective November 1, 2016, and the agreement extends the previous contract 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. TransAlta Renewables acquired an economic interest based, in part, on the cash flows of the Parkeston facility on May 7, 2015.

Southern Cross

Southern Cross Energy is composed of four natural gas and diesel-fired generation facilities with a combined capacity of 245 MW. Southern Cross Energy sells its output pursuant to a contract with BHP Billiton Nickel West, which was renewed in October 2013 for 10 years. TransAlta Renewables acquired an economic interest based, in part, on the cash flows of the Southern Cross Energy facilities on May 7, 2015.

South Hedland

In 2014, TransAlta was selected as the successful bidder to design, build, own and operate a 150 MW combined cycle power station near South Hedland, Western Australia. Construction began in early 2015 and the plant achieved commercial operation on July 28, 2017. The plant was fully contracted with two customers for a 25-year term. The majority of the plant's capacity remains contracted to Horizon Power, the state-owned electricity supplier in the region. The second customer is the port operations of FMG for 35 MW of capacity. In November 2017, we received a notice from FMG purporting to terminate their PPA. We have disputed this notice and are currently in litigation with FMG in respect of this dispute. The case is scheduled to be before the courts in mid-2020. See "*Legal Proceedings and Regulatory Actions*" for further details. TransAlta Renewables acquired an economic interest based, in part, on the cash flows of the South Hedland facility on May 7, 2015.

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 km 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. Under the gas tariff agreement, FMG has the option to purchase the Fortescue River Gas Pipeline commencing March 2020. The 16-inch diameter pipeline has an initial free-flow capacity of 64 TJ per day. TransAlta Renewables acquired an economic interest based, in part, on the cash flows of the pipeline on May 7, 2015.

Wind and Solar Business Segment

As at December 31, 2019, the Wind and Solar segment held interests in approximately 1,446 MW of net wind generating capacity from 10 wind farms in Western Canada, four in Ontario, two in Québec, three in New Brunswick and four in the United States, more specifically in the states of Wyoming, Minnesota, Pennsylvania and New Hampshire. We also hold an interest in a 21 MW solar facility in the state of Massachusetts in the United States.

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 base load 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 farm, this includes wind farm design including wake and array losses, wind shear and the electrical losses within the site. For a solar plant, long-term energy production depends on panel angle and row spacing, amount of sun, ambient conditions such as temperature and wind speed and losses 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, including offsets and RECs. 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:

Facility Name	Province/ State	Ownership (%)	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Alberta Wind Facilities.....						
Ardenville ⁽⁴⁾⁽⁵⁾	AB	100	69	2010	Merchant	-
Blue Trail ⁽⁴⁾⁽⁵⁾	AB	100	66	2009	Merchant	-
Castle River ⁽⁴⁾⁽⁵⁾⁽⁶⁾	AB	100	44	1997- 2001	Merchant	-
Cowley North ⁽⁴⁾⁽⁵⁾	AB	100	20	2001	Merchant	-
Macleod Flats ⁽⁴⁾⁽⁵⁾	AB	100	3	2004	Merchant	-
McBride Lake ⁽⁴⁾⁽⁵⁾	AB	50	38	2004	ENMAX	2024
Sinnott ⁽⁴⁾⁽⁵⁾	AB	100	7	2001	Merchant	-
Soderglen ⁽⁴⁾⁽⁵⁾	AB	50	35	2006	Merchant	-
Summerview 1 ⁽⁴⁾⁽⁵⁾	AB	100	70	2004	Merchant	-
Summerview 2 ⁽⁴⁾⁽⁵⁾	AB	100	66	2010	Merchant	-
Eastern Canada Wind Facilities						
Kent Breeze ⁽⁴⁾	ON	100	20	2011	IESO	2031
Kent Hills 1 ⁽⁴⁾	NB	83	80	2008	NB Power	2035
Kent Hills 2 ⁽⁴⁾	NB	83	45	2010	NB Power	2035
Kent Hills 3 ⁽⁴⁾	NB	83	14	2018	NB Power	2035
Le Nordais ⁽⁴⁾⁽⁵⁾⁽⁷⁾	QC	100	98	1999	Hydro-Québec	2033
Melancthon I ⁽⁴⁾	ON	100	68	2006	IESO	2026
Melancthon II ⁽⁴⁾	ON	100	132	2008	IESO	2028
New Richmond ⁽⁴⁾⁽⁵⁾	QC	100	68	2013	Hydro-Québec	2033
Wolfe Island ⁽⁴⁾	ON	100	198	2009	IESO	2029
US Wind and Solar Facilities						
Antrim ⁽³⁾	NH	100	29	2019	Partners HealthCare and New Hampshire Electric	2038
Big Level ⁽³⁾	PA	100	90	2019	Microsoft	2033
Lakeswind ⁽³⁾	MN	100	50	2014	LTC	2034
Mass Solar ⁽³⁾⁽⁸⁾	MA	100	21	2012-2015	LTC	2032-2045
Wyoming Wind ⁽³⁾	WY	100	140	2003	LTC	2028
Total Wind and Solar Net Capacity⁽⁹⁾			1,467			

Notes:

(1) MW are rounded to the nearest whole number. Column may not add due to rounding. Net Capacity Ownership Interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at December 31, 2019, TransAlta owned, directly and 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 two facilities.

(8) Comprised of multiple facilities.

(9) Excludes Windcharger and Windrise which are assets under construction.

All of the electricity generated and sold by our Wind segment within Alberta and Quebec, 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 farm located approximately eight kilometres south of Fort Macleod, Alberta adjacent to the Macleod Flats wind facility. We constructed the project, which commenced commercial operations on November 10, 2010. In 2018, the Ardenville wind farm was granted an extension to create offset credits under the Alberta Technology Innovation and Emissions Reduction ("TIER") Regulation until October 2023 and is entitled to receive EcoENERGY for Renewable Power payments until November 2020. We acquire the generation from the facility pursuant to a Renewables PPA (as defined in the Glossary of Terms), and subsequently sell such generation in the Alberta spot market.

Blue Trail

The Blue Trail facility is owned by TransAlta Renewables. Blue Trail is a 66 MW wind farm located in southern Alberta, which commenced commercial operations in November 2009. The Blue Trail wind farm 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.

Castle River

The Castle River facility is owned by TransAlta Renewables. Castle River is a 44 MW wind facility which is comprised of 66 Vestas wind turbines (three Vestas V44 600 kW wind turbines and 63 Vestas V47 660 kW wind turbines) on 50 metre towers, and 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 Hillspring areas of south western Alberta. This facility began commercial operations in stages from November 1997 through to July 2001. This facility generates Emissions Performance Credits ("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 farm that is comprised of 15 1.3 MW Nordex N60 wind turbines on 65-metre towers, and is 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 wind farm creates EPCs under TIER. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell such generation in the Alberta spot market.

Macleod Flats

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.

McBride Lake

The McBride Lake facility is owned by TransAlta Renewables. The 75 MW McBride Lake wind facility, which is partially owned by ENMAX Generation Portfolio Inc., is comprised of 114 Vestas V47 (660 kW) wind turbines on 50-metre towers, and 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 will generate EPCs under the TIER system.

Sinnott

The Sinnott facility is owned by TransAlta Renewables. Sinnott has a total installed capacity of 7 MW that is comprised 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 farm 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 that is comprised of 47 1.5 MW GE SLE wind turbines on 65-metre towers, and is located southwest of Fort Macleod. This facility began commercial operations in September 2006. The Soderglen wind farm creates EPCs under the TIER system. TransAlta Renewables owns the facility equally with Nexen Energy ULC. We acquire the generation from the facility pursuant to a Renewables PPA, and subsequently sell 50 per cent of such generation in the Alberta spot market (which excludes that portion of generation that is owned by Nexen Energy ULC).

Summerview 1

The Summerview 1 facility is owned by TransAlta Renewables. Summerview 1 is a 66 MW wind farm located approximately 15 kilometres northeast of Pincher Creek, Alberta. We constructed Summerview and it commenced 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.

Summerview 2

The Summerview 2 facility is owned by TransAlta Renewables. Summerview 2 is a 66 MW wind farm that is comprised of 38, 1.8 MW Vestas V80 wind turbines on 67 metre towers, and is 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.

Windcharger

Windcharger is an energy storage project that will have 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 farm substation. Windcharger will store energy produced by the nearby Summerview 2 wind farm and discharge into the Alberta electricity grid at times of high-peak demand. The project is expected to be the first utility-scale battery storage facility in Alberta and will be receiving co-funding support from Emissions Reduction Alberta. Regulatory applications, including a facilities application to the AUC and an interconnection application to the AESO, have been submitted. AUC approval was granted in November 2019 and the AESO approval is expected by the end of the first quarter of 2020. Construction is on-track to begin in March 2020 with a commercial operation date expected within the second quarter of 2020. The Windcharger project has been identified as a potential candidate for transfer of ownership to TransAlta Renewables.

Windrise

On December 17, 2018, TransAlta's project Windrise was selected by the AESO as one of the three selected projects in the third round of the Renewable Electricity Program. Windrise is 207 MW wind project situated on 11,000 acres of land located in the county of Willow Creek. TransAlta and the AESO have executed a Renewable Electricity Support Agreement with a 20-year term. Windrise has secured approval for the facility from the AUC and is currently permitting transmission lines required to connect the facility to the Alberta grid. Construction activities will start in the second quarter of 2020 and the project is on track to reach commercial operation during the first half of 2021. The Windrise project has been identified as a potential candidate for transfer of ownership to TransAlta Renewables.

Eastern Canada Wind Facilities

Kent Breeze

Kent Breeze is a 20 MW wind project located in Thamesville, Ontario. This facility began commercial operations in 2011. Generation from this facility is sold to the IESO. Kent Breeze is entitled to receive ecoENERGY payments until December 31, 2021. On May 31, 2018 this facility was acquired by TransAlta Renewables. See "*General Development of the Business - Three-Year History - Generation and Business Development*".

Kent Hills 1

The Kent Hills 1 facility is owned by TransAlta Renewables. Kent Hills is a 96 MW project located in Kent Hills, New Brunswick, and delivers power under a 25-year PPA with New Brunswick Power. Natural Forces Technologies Inc. ("Natural Forces"), an Atlantic Canada-based wind developer, is our co-development partner in this project and exercised its option to purchase 17 per cent of the Kent Hills project in May 2009. Kent Hills began commercial operations in 2008. On June 1, 2017, the term of the Kent Hills 1 PPA was extended by two years to 2035. The Kent Hills 1 facility received ecoENERGY payments up until December 31, 2018.

Kent Hills 2

The Kent Hills 2 facility is owned by TransAlta Renewables. This Kent Hills expansion is a 54 MW wind farm that also delivers power under a 25-year PPA with New Brunswick Power, expiring in 2035. Natural Forces exercised its option to purchase a 17 per cent interest in the Kent Hills 2 expansion project subsequent to the commencement of commercial operations. The facility began commercial operations in 2010. The Kent Hills 2 facility is owned by TransAlta Renewables and is entitled to receive ecoENERGY payments until November 2020.

Kent Hills 3

The Kent Hills 3 facility is owned by TransAlta Renewables. On June 1, 2017, we signed a PPA with New Brunswick Power for the further expansion of the Kent Hills wind farm. This expansion project, Kent Hills 3, reached commercial operations as of October 19, 2018 and adds 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. See "*General Development of the Business – Three-Year History - Generation and Business Development*".

Le Nordais

The 98 MW Le Nordais wind facility is located at two sites: Cap-Chat with 55.5 MW of installed capacity comprised of 74 750 kW NEG-Micon wind turbines on 55-metre towers; and Matane with 42 MW of installed capacity comprised 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 generates RECs. On January 6, 2016, TransAlta Renewables acquired from the Corporation tracking preferred shares that entitle TransAlta Renewables to an economic interest based on the cash flows, in part, from the Le Nordais facilities. Subsequently, on November 30, 2016, the economic interest was replaced with direct ownership of the entity that owns the Le Nordais wind farm. See "*Business of TransAlta – Non-Controlling Interests*".

Melancthon I

The Melancthon I facility is owned by TransAlta Renewables. Melancthon I is a 68 MW wind project that is comprised 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 project that is comprised 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 project that is comprised 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 project that is comprised 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. Wolfe Island was entitled to receive EcoENERGY payments until June 2019.

US Wind and Solar Facilities

Antrim

The Antrim Wind Farm is a 29 MW wind project located in Antrim, New Hampshire. The wind farm was constructed by TransAlta Corporation and was commissioned in December 2019. The wind farm is fully operational and contracted under two long-term PPAs until 2039 with Partners Healthcare and New Hampshire Electric. On February 28, 2018 TransAlta Renewables acquired tracking preferred shares from the Corporation that provides TransAlta Renewables with an economic interest in the wind farm. See "*General Developments of the Business – Three-Year History - Generation and Business Development*".

Big Level

The Big Level Wind Farm is a 90 MW wind project located in Potter County, Pennsylvania. The wind farm was constructed by TransAlta Corporation and was commissioned in December 2019. The wind farm is fully operational and contracted under a long-term PPA until 2034 with Microsoft. On February 28, 2018, TransAlta Renewables acquired tracking preferred shares from the Corporation that provides TransAlta Renewables with an economic interest in the wind farm. See "*General Developments of the Business – Generation and Business Development*".

Lakeswind

The Lakeswind Wind Farm is a 50 MW wind project located near Rollag, Minnesota. The wind farm was acquired in 2015 from an affiliate of Rockland Capital LLC. The wind farm 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 Corporation that provides TransAlta Renewables with an economic interest in the wind farm. See "*General Developments of the Business – Generation and Business Development*".

Mass Solar

The Mass Solar Farm is a 21 MW solar project consisting of multiple facilities located in Massachusetts. The wind farm was acquired in 2015 from an affiliate of Rockland Capital LLC. The operational solar farm is contracted under a long-term PPA with several high-quality counterparties. In addition to revenue generated under the PPA, the projects generate Solar RECs that expire in 2024. On May 31, 2018 TransAlta Renewables acquired tracking preferred shares from the Corporation that provide TransAlta Renewables with an economic interest in the solar farm. See "*General Development of the Business – Three-Year History - Generation and Business Development*" and "*Business of TransAlta – Non-Controlling Interests – TransAlta Renewables*".

Wyoming

The Wyoming Wind Farm is a 140 MW wind project located near Evanston, Wyoming. The wind farm was acquired in December 2013 from an affiliate of NextEra Energy Resources, LLC. The wind farm is contracted under a long-term PPA until 2028 with an investment grade counterparty. TransAlta Renewables holds tracking preferred shares from the Corporation that provides TransAlta Renewables with an economic interest in the wind farm. See "*Non-Controlling Interests – TransAlta Renewables*".

Hydro Business Segment

The Hydro business segment holds an interest in 926 net MWs. The facilities are located in British Columbia, Alberta, Ontario and Washington State.

As well as contracting for power, long-term and short-term contracts are entered into 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 December 31, 2019:

Facility Name	Province/ State	Ownership (%)	Net Capacity Ownership Interest (MW) ⁽¹⁾	Commercial Operation Date	Revenue Source	Contract Expiry Date ⁽²⁾
Alberta - Bow River System.....						
Barrier ⁽³⁾	AB	100	13	1947	Alberta PPA	2020
Bearspaw ⁽³⁾	AB	100	17	1954	Alberta PPA	2020
Cascade ⁽³⁾	AB	100	36	1942, 1957	Alberta PPA	2020
Ghost ⁽³⁾	AB	100	54	1929, 1954	Alberta PPA	2020
Horseshoe ⁽³⁾	AB	100	14	1911	Alberta PPA	2020
Interlakes ⁽³⁾	AB	100	5	1955	Alberta PPA	2020
Kananaskis ⁽³⁾	AB	100	19	1913, 1951	Alberta PPA	2020
Pocaterra	AB	100	15	1955	Merchant	-
Rundle ⁽³⁾	AB	100	50	1951, 1960	Alberta PPA	2020
Spray ⁽³⁾	AB	100	112	1951, 1960	Alberta PPA	2020
Three Sisters ⁽³⁾	AB	100	3	1951	Alberta PPA	2020
Alberta - Oldman River System.....						
Belly River ⁽⁴⁾⁽⁵⁾	AB	100	3	1991	Merchant	-
St. Mary ⁽⁴⁾⁽⁵⁾	AB	100	2	1992	Merchant	-
Taylor ⁽⁴⁾⁽⁵⁾	AB	100	13	2000	Merchant	-
Waterton ⁽⁴⁾⁽⁵⁾	AB	100	3	1992	Merchant	-
Alberta - North Saskatchewan River System.....						
Bighorn ⁽³⁾	AB	100	120	1972	Alberta PPA	2020
Brazeau ⁽³⁾	AB	100	355	1965, 1967	Alberta PPA	2020
BC Hydro Facilities.....						
Akolkolex ⁽⁴⁾⁽⁵⁾	BC	100	10	1995	BC Hydro	2046
Pingston ⁽⁴⁾⁽⁵⁾	BC	50	23	2003, 2004	BC Hydro	2023
Bone Creek ⁽⁴⁾⁽⁵⁾	BC	100	19	2011	BC Hydro	2031
Upper Mamquam ⁽⁴⁾	BC	100	25	2005	BC Hydro	2025
Ontario Hydro Facilities						
Appleton ⁽⁴⁾	ON	100	1	1994	IESO	2030
Galetta ⁽⁴⁾⁽⁷⁾	ON	100	2	1998	IESO	2030
Misema ⁽⁴⁾	ON	100	3	2003	IESO	2027
Moose Rapids ⁽⁴⁾	ON	100	1	1997	IESO	2030
Ragged Chute ⁽⁴⁾	ON	100	7	1991	IESO	2029
US Hydro Facilities						
Skookumchuck ⁽⁶⁾	WA	100	1	1970	PSE	2020
Total Hydroelectric Net Capacity			926			

Notes:

(1) MW are rounded to the nearest whole number. Net Capacity Ownership Interest includes 100 per cent of the generating capacity owned by TransAlta Renewables. As at December 31, 2019, 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 "General Development of the Business - Three-Year History - Strategic Investment by Brookfield Renewable Partners."

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

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

Bow River System

Barrier

Barrier is a run-of-river hydroelectric facility with installed capacity of 13 MW located on the Kananaskis River in Seebe, Alberta. It has been operating since 1947. The facility operates under an Alberta PPA.

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 operates under an Alberta PPA.

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 operates under an Alberta PPA.

Ghost

Ghost is a hydroelectric facility with installed capacity of 54 MW located on the Bow River in Cochrane, Alberta. It has been operating since 1929. The facility operates under an Alberta PPA.

Horseshoe

Horseshoe is a run-of-river hydroelectric facility with installed capacity of 14 MW located on the Bow River in Seebe, Alberta. It has been operating since 1911. The facility operates under an Alberta PPA.

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 operates under an Alberta PPA.

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. It was expanded in 1951 and modified in 1994. The facility operates under an Alberta PPA.

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.

Rundle

Rundle is a hydroelectric facility with installed capacity of 50 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 operates under an Alberta PPA.

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 operates under an Alberta PPA.

Three Sisters

Three Sisters is a hydroelectric facility with installed capacity of 3 MW located at the base of the Three Sisters Dam 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 operates under an Alberta PPA.

Oldman 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 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 St. Mary Dam on the Waterton 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 Hillspring, 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 in Nordegg, Alberta. It has been operating since 1972. The facility operates under an Alberta PPA.

Brazeau

Brazeau is a hydroelectric facility with installed capacity of 355 MW located in Drayton Valley, Alberta. It has been operating since 1965. The facility operates under an Alberta PPA.

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. In 2016, TransAlta entered into a new 30-year agreement to sell the output from the facility to the British Columbia Hydro Power Authority ("BC Hydro").

Pingston

Pingston is a run-of-river hydroelectric facility with installed capacity of 45 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 Brookfield Renewable Power Inc. The output from the facility is sold to BC Hydro.

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 under contract with BC Hydro. The facility also currently qualifies for payments of \$10/MWh until December 2020 from Natural Resources Canada, a division of the federal government, through the ecoENERGY Renewable Power program.

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 wholly owned facility utilizes two horizontal axis double Litostroj

Francis turbines and Leroy Somer generators. 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 Ontario's IESO under a contract that terminates on December 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 December 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 December 31, 2030.

Ragged Chute

Ragged Chute is a run-of-river hydroelectric facility with installed capacity of 7 MW located on the Montréal River, south of New Liskeard, 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. On January 6, 2016, TransAlta Renewables acquired from the Corporation tracking preferred shares that entitle TransAlta Renewables to an economic interest based on the cash flows, in part, from the Ragged Chute Facility; subsequently, on November 30, 2016, the economic interest was replaced with direct ownership of the entity that owns the Ragged Chute hydro facility. See "Business of TransAlta – Non-Controlling Interests" in this AIF.

US Hydro Facilities

Skookumchuck

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 December 10, 2010, we entered into an agreement with Puget Sound Energy for Skookumchuck to provide power until 2020.

US Coal Business Segment

Our U.S. Coal facilities are summarized in the following table:

Facility Name	Province/ State	Ownership (%)	Net Capacity Ownership Interest (MW)	Commercial Operation Date	Revenue Source	Contract Expiry Date
Centralia Thermal No. 1	WA	100	670	1971	LTC/Merchant	2020
Centralia Thermal No. 2	WA	100	670	1971	LTC/Merchant	2025
Total US Coal Net Capacity			1,340			

We own a two-unit 1,340 MW thermal coal-fired facility in Centralia, Washington, located south of Seattle. We have entered into a number of multiple year medium- and short-term energy sales agreements from the Centralia thermal plant. In 2011, Washington State passed the TransAlta Energy Transition Bill (chapter 180, Laws of 2011) (the "Bill") allowing the Centralia thermal plant to comply with the State's GHG emissions performance standards by ceasing coal generation in one of its two boilers by the end of 2020 and the other by the end of 2025. The Bill removed restrictions that had previously been imposed on the facility limiting the duration of new contracts from the facility and limiting the technology that the facility would be required to implement for NOx controls. On July 25, 2012, we announced that we

entered into an 11-year agreement to provide electricity from our Centralia thermal plant to Puget Sound Energy. The contract began in 2014 and runs until 2025 when the plant is scheduled to stop burning coal. Under the agreement, Puget Sound Energy bought 180 MW of firm, base-load power starting in December 2014. In December 2015, the contract volume increased to 280 MW and from December 2016 to December 2024 the contract is for 380 MW. In 2025, the contracted volume is for 300 MW.

On July 30, 2015, we announced that we were moving ahead with plans to 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 December 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, closing Centralia facility's two coal units, one in 2020 and the other in 2025. Approved funding for the three boards totals approximately US\$36.7 million as at December 31, 2019.

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

We also own a coal mine adjacent to the Centralia facility. We stopped mining operations at our Centralia coal mine on November 27, 2006. Although we estimate that certain coal reserves remain to be extracted, we have not yet received permits for, nor developed the new area from which this coal could be produced. Coal to fuel the Centralia plant is sourced from the Powder River Basin in Montana and Wyoming. TransAlta is currently party to a coal contract that expires at the end of 2020. We expect to continue to source our future coal needs from the Powder River Basin. In December 2014, we began fine coal recovery operations at our Centralia mine. This operation recovers previously wasted coal as part of the mine reclamation process. On March 29, 2019, we sent a notice of termination to the contractor ("Coalview") performing the fine coal recovery operations. Coalview is disputing the termination. TransAlta filed a motion for summary judgment that is scheduled for April 20, 2020. We anticipate a judgment in the first half of 2020.

Under the U.S. Federal Mine Safety and Health Act, TransAlta must report all citations at its Centralia mine. The mine is currently not in operation. There was one injury incident at the mine during 2019, attributable to Coalview. The total dollar value of all Mine Safety and Health Administration ("MSHA") assessments are not material. There is one pending penalty assessment being contested by Centralia before the Federal Mine Safety and Health Review Commission involving the Centralia mine pending during 2019. Coalview is contesting two 104(d)(1) citations.

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 Under Section 104(e) (yes/no)	Legal Actions Initiated or Pending During Period (#)
4500416	27 ⁽¹⁾	0	2 ⁽²⁾	0	0	156,413 ⁽³⁾	0	No	No	0

Notes:

(1) Four citations issued to Centralia (three are closed and one is being contested) and 23 issued to Coalview

(2) Both 104(d) citations were issued to Coalview

(3) \$2,072 proposed assessment to Centralia (\$1709 contested) and \$154,341 proposed assessment to Coalview

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;
- negotiating and managing fuel supply arrangements with third parties for our generation assets. This includes scheduling, billing and settlement of physical deliveries of natural gas and other fuels;
- the development and execution of our corporate hedging strategy within Board approved parameters; and
- the optimization of the asset fleet to maximize gross margin and mitigation of market risks.

The Energy Marketing segment also derives additional revenue by providing fee-based asset management services to third parties, by 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 focused on the existing asset and customer footprint of the Corporation.

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 ("VaR"), Gross Margin at Risk ("GMaR"), and tail risk measures to monitor and manage the risks within our asset and trading portfolios. VaR and GMaR 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 Corporation'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 of December 31, 2019, we held, directly and indirectly, approximately 60 per cent of the issued and outstanding common shares in TransAlta Renewables, which is a publicly traded entity. During 2019, our ownership interest was reduced from approximately 61 per cent at December 31, 2018, due to additional common shares issued by TransAlta Renewables under its Dividend Reinvestment Plan. We remain committed to maintaining our position as the majority shareholder of TransAlta Renewables.

TransAlta Corporation 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 TransAlta Corporation and TransAlta Renewables. In connection with the services provided under the Management, Administrative and Operational Services Agreement, TransAlta Renewables pays us an annual fee, which is meant to cover our 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. As at December 31, 2019, the G&A Reimbursement Fee was approximately \$17 million. On February 28, 2020, the Management Agreement was amended so that the G&A Reimbursement Fee will be calculated quarterly in an amount equal to 5 per cent of Comparable 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 Corporation on any of the tracking preferred shares. This amendment is not expected to result in any material change to the amount of the G&A Reimbursement Fee.

TransAlta Renewables completed its initial public offering in August 2013. In connection with the offering, we transferred to TransAlta Renewables certain wind and hydro power generation assets. On December 20, 2013, we sold to TransAlta Renewables an economic interest in a 140 MW wind farm located in the State of Wyoming for payment equal to US\$102 million. The Wyoming wind farm is managed by TransAlta under the terms of the Management, Administrative and Operational Services Agreement and is operated by NextEra Energy Resources, LLC.

On May 7, 2015, we sold to TransAlta Renewables an economic interest based on the cash flows of our Australian assets. The portfolio, held by TEA, consists of six operating assets with an installed capacity of 450 MW as well as a 270 km gas pipeline. The combined value of the Australian transaction was approximately \$1.78 billion. At the closing of the Australian transaction, TransAlta Renewables paid us \$216.9 million in cash as well as approximately \$1,067 million through the issuance of a combination of common shares and Class B shares in the capital of TransAlta Renewables. On August 1, 2017, the Class B shares converted into common shares in the capital of TransAlta Renewables.

On January 6, 2016, we sold to TransAlta Renewables an economic interest in the Corporation's Sarnia cogeneration plant, Le Nordais wind farm and Ragged Chute hydro facility for a combined value of \$540 million. The Canadian assets consist of approximately 611 MW of contracted power generation assets located in Ontario and Québec. The Corporation received cash proceeds of \$172.5 million, a \$215 million convertible unsecured subordinated debenture and approximately \$152.5 million in common shares of TransAlta Renewables. In November 2016, the economic

interest was converted to direct ownership of the entities that own the Sarnia cogeneration plant, Le Nordais wind farm and Ragged Chute hydro facility. The convertible debenture was redeemed on November 9, 2017.

On May 31, 2018, we sold to TransAlta Renewables an economic interest in the Corporation's 50 MW Lakeswind Wind Farm in Minnesota and 21 MW of solar projects located in Massachusetts. In addition, we sold to TransAlta Renewables the 20 MW Kent Breeze Wind Farm located in Ontario. The total purchase price payable to TransAlta for the three assets, which have an average weighted contract life of 15 years, was \$166 million, including the assumption by TransAlta Renewables of \$62 million of tax equity obligations and project debt.

The Management, Administrative and Operational Services Agreement has an initial 20-year term; provided, 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 prior to 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 our independent directors at any time if TransAlta's direct and indirect ownership in TransAlta Renewables falls below 20 per cent.

Kent Hills

We indirectly hold, through our share ownership of TransAlta Renewables, an 83 per cent interest in the 150 MW Kent Hills 1 and 2 wind farm located in New Brunswick. We also indirectly hold, through our ownership of TransAlta Renewables, an 83 per cent interest in the 17.25 MW expansion of the Kent Hills site (Kent Hills 3) which was completed on October 19, 2018, bringing the total generating capacity of the three Kent Hills facilities to 167 MW. A description of the facilities is provided under the hearing "*General Development of the Business - Three-Year History - Generation and Business Development*".

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 790 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 three natural gas-fired cogeneration facilities located in Ontario: (i) the 108 MW Mississauga Facility, currently in the process of decommissioning, see "*General Development of the Business - Three-Year History - Generation and Business Development*"; (ii) the 74 MW Ottawa plant; and (iii) the 72 MW Windsor plant. Descriptions of these facilities, ownership levels and contract expiry dates are provided under the headings "*Canadian Gas Business Segment*" and "*Canadian Coal Business Segment*" in this AIF.

PPAs

Renewables PPAs

In August of 2013, we entered into long-term power purchase agreements with certain subsidiaries of TransAlta Renewables (each a "Merchant Subsidiary") providing for the purchase by TransAlta, for a fixed price, of all of the power produced at the Merchant Subsidiaries (the "Renewables PPAs"). The initial price payable in 2013 by TransAlta for output under the Renewables PPAs was \$30.00/MWh for wind facilities and \$45.00/MWh for hydroelectric facilities, which amounts are adjusted annually for changes in the Canadian consumer price index. The Canadian consumer price index adjusted prices for 2019 were \$32.88 per MWh for wind facilities and \$49.33 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

A number of our Alberta thermal and hydroelectric facilities are operated under Alberta power purchase arrangements ("Alberta PPAs"). The Alberta PPAs establish committed capacity and electrical energy generation requirements and availability targets to be achieved by each thermal plant, energy and ancillary services obligations for the hydroelectric plants, and the price at which electricity is to be supplied. We bear the risk or retain 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 plants) and any change in costs (unless due to a change in law) required to maintain and operate the facilities.

In early 2016, the buyers gave notice to the Balancing Pool of the termination of the Alberta PPAs for Sundance A, B, and C, Sheerness, and Keephills. The Balancing Pool confirmed the terminations of the PPAs for Sundance A, B, C, and Sheerness in late 2016 and confirmed the termination of the Keephills PPA in late 2017. For those Alberta PPAs that were terminated, the Balancing Pool had assumed the role of buyer. On September 18, 2017, the Balancing Pool elected to terminate the Sundance B PPA and Sundance C PPA effective on or before March 31, 2018. Pursuant to a written agreement, the Balancing Pool paid us approximately \$157 million on March 29, 2018. We disputed the termination payment received as the Balancing Pool excluded certain mining and corporate assets that should have been included in the net book value calculation. On August 26, 2019, we announced that we were successful in the arbitration and received the full amount claimed by us to have been owing, being \$56 million, plus GST and interest. See "*General Development of the Business - Three-Year History - Generation and Business Development*".

Our hydroelectric facilities, other than Belly River, Pocaterra, St. Mary, Taylor and Waterton, are aggregated through one Alberta PPA that provides for financial obligations for energy and ancillary services based on hourly targets. We meet these targeted amounts through physical delivery or third-party purchases.

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. 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. First, 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. Second, 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 both wind and solar generation. As a result, these technologies now account for the majority of the new generating capacity added to many of the world's electricity grids. Third, electrification is seen as one of the most effective levers to reduce GHG emissions in many sectors such as transportation. As these sectors and others continue to shift to electricity as their primary energy source we will see accelerating demand growth for our product.

We expect that renewable power generation will be one of the fastest growing sources of power generation in both Canada and the US, a forecast that is well supported by recent trends and announcements. We are ready for this transformation. We have the skills, experience and scale to compete for additional assets within our target markets. Today, we are one of the largest publicly traded renewable power generation companies in Canada.

Alberta

The *Fair, Efficient and Open Competition Regulation* generally provides that an electricity market participant shall not hold offer control in excess of 30% of the total maximum capability of generating units in Alberta. A market participant's total offer control is measured as the ratio of MW under its control to the sum of maximum capability of generating units in Alberta. Our market share of offer control in Alberta in 2019 was approximately 21 per cent (16 per cent if the Sundance mothballed units are excluded from offer control).

In late November 2016, we announced that we had entered into an Off-Coal Agreement with the Government of Alberta that provides transition payments from the Government of Alberta in consideration for the cessation of coal-fired emissions from the Keephills 3, Genesee 3 and Sheerness coal-fired plants on or before December 31, 2030. The affected plants are not, however, precluded from generating electricity at any time by any method other than the combustion of coal. We also entered into a Memorandum of Understanding with the Government of Alberta to collaborate and co-operate in the development of a market in Alberta that ensures both current and new electricity generators will have a level economic playing field to build, buy and sell electricity, and to develop a policy framework to facilitate the conversion of coal-fired generation to gas-fired generation.

Coal-to-Gas Conversions

The Corporation's coal-to-gas conversion plan offers compelling economics and we believe it is an attractive value proposition that compares favourably to the risk/return metrics of greenfield or brownfield investments or compared to staying on coal. During 2019, we made significant advances in our planning for the coal-to-gas conversion program and

this conversion is now well underway. We have announced that during the 2020/2021 period Sundance 6 and Keephills Unit 2 will undergo conversions to allow them to burn natural gas in the existing boilers instead of coal, and Keephills 3 will be converted to allow it to burn natural gas or coal. Further, we will repower the Sundance 5 plant by installing new gas turbines and boilers and using the existing steam turbine. We are evaluating this same repowering approach for Keephills Unit 1. In November 2019, we announced the acquisition of two Siemens 'F' Class gas turbines from Kinetitor originally planned to be commissioned at Kinetitor's Three Springs project in Northern Alberta.

With lower capital investment and lower sustaining costs, and being able to operate significantly longer once converted, TransAlta will enhance and extend the cash flows from the Alberta coal fleet through these conversions. Following the conversion to gas-fired generation, we will also significantly improve our environmental performance as GHG, air emissions, waste generation and water usage will all significantly decline. A conversion of coal-fired power generation to gas-fired generation is also expected to eliminate all mercury emissions and the majority of sulphur dioxide emissions as well as halving nitrogen oxide emissions.

US Pacific Northwest

Our capacity in the US Pacific Northwest is represented by our 1,340 MW Centralia coal plant. In the second quarter of 2020, we expect to add the Skookumchuck wind farm. This asset is currently under construction by Southern Power and when the project reaches commercial operation, we anticipate purchasing a 49% interest in the asset. The Centralia coal facility is committed to be phased-out over the next five years with half of the plant capacity scheduled to retire at the end of 2020 and the other half at the end of 2025.

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. The contract and our hedges allow us to satisfy power requirements from the market during low-priced periods.

We maintain the right to redevelop Centralia as a gas plant after coal capacity retires, with an opportunity for expedited permitting provided for in our agreement for coal transition established with the State of Washington in 2011.

Contracted Gas and Renewables

The market for developing or acquiring gas and renewable generation facilities is highly competitive in all markets in which we operate. Our solid record as operator and developer supports our competitive position. We expect, where possible, to reduce our cost of capital and improve our competitive profile by using project financing and leveraging the lower cost of capital with TransAlta Renewables. In the US, our substantial tax attributes further increase our competitiveness.

While depressed commodity prices have reduced sectoral growth in the oil, gas and mining industries, the change is also creating opportunities for us as a service-provider as some of our potential customers are more carefully evaluating non-core activities and driving for operational efficiencies. In renewables, we are primarily evaluating greenfield opportunities in Western Canada and the United States along with targeted acquisitions in these same markets. We maintain highly qualified and experienced development teams to identify and develop these opportunities.

Some of our older gas plants are now reaching the end of their original contract life. The plants generally have a substantial cost advantage over new builds and we have been able to add value by re-contracting these plants with limited life-extending capital expenditures. We have recently extended the contracted life of our Ottawa plant (2033 expiry), Windsor (2031 expiry), Parkeston (2026 expiry) and Fort Saskatchewan (2030 expiry) plants in this manner.

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 is 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 and that is expected to continue. The federal Department of Environment and Energy predicts an overall renewables penetration of 50% in the NEM and 55% 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 and these three industries are all performing well. Commodity prices are strong, and the nickel industry is experiencing an increase in demand to support both steel and battery manufacturers. Iron ore exports are forecast to rise slightly driven by large-scale producers ramping up long term production targets to maintain revenue in a lower price environment. Remote mining operations are also beginning to explore options to add renewable generation to their sites in an effort to reduce the amount of gas and diesel required in these operations. We expect this trend to continue and to create opportunity for our business in Western Australia.

Seasonality and Cyclical

The business of the Corporation is cyclical, particularly in respect of the renewables generation held by TransAlta Renewables, due to: (i) the nature of electricity and the limited storage capacity ; and (ii) 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 Corporation's exposure to the variations of any one natural resource in any one region. Since 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 "Risk Factors".

Regulatory Framework

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

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. These decisions changed the coal plant closure requirements, which had previously been guided by federal regulations that became effective on July 1, 2015, which provided for up to 50 years of life for coal units. On February 16, 2018, Environment and Climate Change Canada announced draft regulations to phase out coal-fired generation by 2030, as well as draft 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

Since January 1, 1996, new generating capacity initiatives in Alberta have been undertaken by independent power producers ("IPP") and have been subject to market forces, rather than rate regulation. Power from commercial generation is cleared through a wholesale electricity market. Power is dispatched in accordance with an economic merit order administered by the Alberta Electric System Operator ("AESO"), based upon offers by generators to sell power. Our merchant Alberta fleet operates under this framework and we internally manage our offers to sell power. The Market Surveillance Administrator for the Province of Alberta is an independent entity responsible for monitoring and investigating the market behaviour of market participants, including the AESO and the Balancing Pool, and enforcing compliance with all applicable legislation, regulations, AESO and Alberta Utilities Commission ("AUC") rules. The AUC oversees electricity industry matters, including new power plant and transmission facilities, the distribution and sale of electricity and retail natural gas. The AUC is also responsible for approving the AESO's rules and for determining penalties and sanctions on any participant found to have contravened market rules.

On July 24, 2019, the Government of Alberta announced that it will not transition to a capacity market and will continue with an energy-only market design. This decision stopped all work on the capacity market design work, which had been underway through the AESO since 2017. The Government's announcement followed a stakeholder consultation and review that found stakeholder support for maintaining the energy-only market based upon its proven track record for providing a reliable supply and affordable electricity for Albertans. The removal of legislative changes to enable the capacity market received royal assent on October 31, 2019.

The Minister of Energy further directed Alberta Energy to conduct a policy review on market power and market power mitigation in the energy-only and ancillary services market and directed the AESO to conduct analysis and make recommendations on whether changes are needed to the price floor/ceiling and shortage pricing by July 31, 2020. The outcomes of these reviews are ongoing and no changes to the energy-only market have been proposed to-date.

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 (OPA) in 2015. The Ontario Ministry of Energy, Northern Development and Mines 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 system, to procure the electricity generation in that plan and to manage contracts for privately owned generation. The IESO is responsible for managing the Ontario wholesale market and for ensuring the reliability of the electric system in Ontario. The electricity sector is regulated by the Ontario Energy Board.

The IESO commenced a market renewal consultation which includes proposed fundamental changes to the electricity market. These include modifying the energy market, adding a capacity market and improving operability and reliability. The IESO is planning to implement a capacity auction starting in 2020. The IESO is continuing to consult on changes to the energy market that are expected to be implemented in early 2023.

British Columbia

British Columbia's electricity market is dominated by a vertically integrated Crown corporation - BC Hydro. 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.

Under government direction in the late 1990's and early 2000's, BC Hydro established a private power market through several competitive calls for power from independent power producers. In recent years, BC Hydro stopped its competitive power calls and contracting with independent power producers ("IPPs") and also suspended its smaller Standing Offer Program for small projects below 15 MW pending a review of the program and the completion of the 2018 Integrated Resource Plan ("IRP").

BC Hydro is working on its 2018 IRP to determine its supply needs and future purchase strategies. The 2018 IRP is delayed and may not be delivered for consideration by the BC Utilities Commission until 2021. The 2013 IRP outlined a need to renew contracts with existing independent power facilities but did not identify a need for new IPPs and little in the market has changed since the adoption of the 2013 IRP.

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 May 2006, the Québec government released an energy strategy that requires private developers to partner with local communities in order to develop energy projects. In all cases, an agreement with Hydro-Québec on the price of the electricity produced is required before a project can obtain governmental approval.

New Brunswick

In 2004, New Brunswick enacted the *Electricity Act* (New Brunswick), pursuant to which the province's electricity market changed to enable the creation of a competitive environment for eligible wholesale, industrial and municipal utility customers. The *Electricity Act* (New Brunswick) provides that, as generating assets are retired or as additional supply is required, standard service suppliers (i.e., the distribution companies) will procure new supply through the competitive market. This means that any new resources required by New Brunswick Power Distribution Company will be acquired through procurement processes open to both IPPs as well as the New Brunswick Power Generation Company. The province has indicated its decision to increase New Brunswick's Renewable Portfolio Standard to a minimum of 40 per cent of New Brunswick Power Generation Company in-province sales by 2020.

As directed by the 2011 New Brunswick Energy Blueprint and 2014 Integrated Resource Plan, this goal will be accomplished through a combination of eligible renewable energy imports from other provinces and by purchased power from local producers and customers through a variety of programs. In 2015, regulations under the *Electricity Act* (New Brunswick) were amended to support the 40 per cent renewable portfolio standard.

While New Brunswick has procured large commercial wind projects over the last decade, the provincial government has signaled in its 2015 document, *Future Development of our Renewable Energy Resources*, that the next phase of renewable development will focus on smaller scale projects with a particular emphasis on non-intermittent forms of generation such as wood-based biomass.

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. The Federal Power Act also provides FERC with the authority to certify and oversee an electric reliability organization which 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)

Lakeswind 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, ensuring market changes should have an immaterial impact on revenues.

Massachusetts (NE-ISO)

The Massachusetts Solar projects are connected to the distribution grid so their 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. Market changes are not expected to have a material impact on net metering revenues.

New Hampshire (NE-ISO)

Antrim 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 participation capacity market. Antrim's electricity is offered into the market and transferred to the buyers. Antrim has a long-term capacity supply obligation so is not impacted by near-term changes to the capacity market auction process. As Antrim and most other intermittent wind projects must take part in the NE-ISO's Do Not Exceed Dispatch, market changes are not expected to have a material impact on revenues.

Pennsylvania (PJM)

Big Level 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. All attributes, energy and capacity have been transferred to the buyer. As a result, market changes are not expected to have a material impact on revenues.

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 (e.g. power plants and transmission lines). Centralia is not regulated by the 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 Corporation 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 commission approves regulated rates, reviews integrated resource plans, approves mergers and acquisitions and grants certificates of public convenience and necessity for large facilities (e.g. power plants and transmission lines). Wyoming Wind is not regulated by the 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 Corporation does not expect any material impact on revenue streams from any commission decisions.

Australia

Australia has two separate major electricity markets, the National Electricity Market ("NEM") encompassing all the major population centres on the Eastern seaboard, and the Wholesale Electricity Market ("WEM") covering the southwest of Western Australia including its capital city, Perth. A number of smaller, stand-alone 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 ("AEMO") 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 AEMO 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. A comprehensive program of works is currently underway with a goal of implementing reforms on October 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 the following:

Operating Strength

We continually benchmark ourselves against previous year performance in order to drive operating costs lower year over year, while also maintaining strong levels of generation performance. We have implemented a program to drive incremental value from our fleet through the development of initiatives to improve generating equipment efficiencies, refining processes and procedures, and optimizing cost structures. Our Sarnia Cogeneration Plant has demonstrated industry best practices through several operations and maintenance processes including the work management process and Environmental, Health & Safety scorecard. We believe the continued maturity of these programs will continue to drive further value in the operations of our facilities.

Stable Cash Flow Base

Through the use of Alberta PPAs and long-term contracts, approximately 71 per cent of our capacity is contracted in 2020 and approximately 49 per cent in 2021. The net revenue received under these contractual arrangements helps to minimize short-term revenue fluctuations due to the variable price of electricity.

Fuel Diversity

We have an interest in a diverse mix of fuels used for the generation of electricity, including coal, natural gas, hydro, wind, and solar. We believe that this mix reduces the impact on our performance in the event of external events affecting one fuel source.

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 over 100 years, and many of our employees have been with us for more than 30 years.

Energy Marketing Expertise

We believe that our Energy Marketing segment has enhanced returns from 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 fulfill electricity delivery obligations in the event of an outage.

Wind Generation

Through our ownership interest in TransAlta Renewables, we are one of the largest owners and operators of wind generation in Canada. Our management team has developed key relationships with customers, suppliers and policy makers that provide a competitive advantage in the development, operations and marketing of wind generation.

Environmental, Social and Governance

We are a recognized leader in sustainable development and we have taken early preventative action on a number of environmental fronts in advance of regulation. We have a long history of adopting leading sustainability practices, including 25 years of sustainability reporting and 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), the Task Force on Climate-related Financial Disclosures and the Canadian Council for Aboriginal Business. In 1990, we were the first Canadian company to purchase carbon offsets and in 2000 we were an early adopter of wind power generation. Through our ongoing transformational efforts, we have reduced our total GHG emissions by 21.3 million tonnes since 2005.

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 and surface mining. 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 and to promote sustainable development.

Ongoing and Recently Passed Environmental Legislation

Changes in current environmental legislation do have, and will continue to have, an impact upon our operations and our business. For further details, see below and "Risk Factors".

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 carbon dioxide equivalent ("CO₂e") emissions in 2019, and rises by \$10 per year until reaching \$50 per tonne in 2022. In 2022, there will be a review of the Output-Based Pricing Standard ("OBPS") and other aspects of the GGPPA.

The OBPS regulates large emitters' carbon intensity by setting a sectoral performance standard (benchmark) of GHG emissions per unit of production. Emitters exceeding the benchmark generate carbon obligations and those emitters that perform below the benchmark generate emission performance credits (EPCs). Emitters can meet their obligations by reducing their emission intensity, buying carbon credits from others (offsets or EPCs) or making compliance payments to the government.

On January 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. Provinces and territories captured by the OPBS include Ontario, Manitoba, New Brunswick, Saskatchewan, Prince Edward Island, Yukon and Nunavut. Provinces and territories subject to the Carbon Tax include Alberta, Ontario, Manitoba, Saskatchewan, Prince Edward Island, Yukon and Nunavut.

Other jurisdictions that were compliant with the GGPPA did not have the backstop mechanism imposed in 2019. These jurisdictions must file and have their carbon pricing programs approved annually. 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.

In *Reference re Greenhouse Gas Pollution Pricing Act*, the Court of Appeal of Alberta held that Parts 1 and 2 of the GGPPA are unconstitutional in their entirety. This decision is the first time that a court has found the GGPPA to be unconstitutional. In split decisions released last year, both the Court of Appeal for Ontario and the Court of Appeal for Saskatchewan concluded that the GGPPA is constitutional. The Supreme Court of Canada is set to determine the matter following the hearing of the appeals in 2020.

Federal Pollution Pricing Fuel Charge ("Carbon Tax")

On October 31, 2018, the Ontario Government passed the *Cap and Trade Cancellation Act* (Ontario) repealing its carbon levy. The Canadian federal government replaced the repealed Ontario carbon levy with the Carbon Tax on January 1,

2019. The Alberta government repealed the Alberta carbon levy (i.e., carbon tax) on May 30, 2019. The federal government replaced the repealed carbon levy with the Carbon Tax effective January 1, 2020.

Alberta and Ontario facilities that are covered by the large emitter regulations are exempt from the Carbon Tax. The Carbon Tax only applies to transportation and heating fuels used at renewables facilities and has a negligible cost impact for the Corporation.

Gas Regulation

On December 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 tonne of carbon dioxide equivalent ("tCO₂e") per megawatt hour ("MWh") to operate. For units with a capacity between 150 MW and 25 MW, their standard was set at 0.550 tCO₂e/MWh. For units of 25 MW or less, there is not standard.

Under the regulations, coal-to-gas conversions will also eventually have to meet a standard of 0.420 tCO₂e/MWh. If the first year performance test after conversion meets certain emission standards it will not have to meet the 0.420 tCO₂e/MWh standard for several additional years past the end of its useful life.

Coal Regulation

On December 12, 2018, amendments to the *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations* came into force under the *Canadian Environmental Protection Act, 1999*. The amended regulations will require coal units to meet an emission level of 0.420 tCO₂e/MWh by the earlier of end-of-life under the 2012 regulations or December 31, 2029.

Clean Fuel Standard

In 2016, the Canadian federal government announced plans to consult on the development of a Clean Fuel Standard ("CFS") to reduce Canada's GHG emissions through the increased use of lower carbon fuels, energy sources and technologies. The objective of the regulation is to achieve 30 million metric tonnes of annual reductions in GHG emissions by 2030. The CFS will establish lifecycle carbon intensity requirements separately for liquid, gaseous and solid fuels that are used in transportation, industry and buildings. Under the proposed policy, coal combusted at facilities that are covered by coal-fired electricity regulations will be exempt from the regulation. Natural gas used for electricity production is currently expected to be included under the gaseous stream.

Consultation on the gaseous stream began in 2019 and will continue into 2020. The draft regulations for the gaseous stream are expected to be published in late 2020 with final regulations expected in 2021. The gaseous stream is currently expected to come into force by 2023. TransAlta continues to be engaged in the consultation process.

If a CFS standard is adopted for natural gas, the compliance requirements for natural gas suppliers will increase the input costs of natural gas. The Corporation expects that the change in law provisions contained in many of our contracts should result in no material revenue impacts to the Corporation.

Alberta

Large Emitter Greenhouse Gas Regulations

On January 1, 2018, the Alberta government transitioned from the *Specified Gas Emitters Regulation* ("SGER") to the *Carbon Competitiveness Incentive Regulation* ("CCIR"). Under the CCIR, the regulatory compliance moved from a facility-specific compliance standard to a product or sectoral performance compliance standard. The CCIR price was \$30/tCO₂e in 2019. The electricity sector performance standard was set at 0.370 tCO₂e/MWh and set to decline annually. All renewable assets that received crediting under the SGER continued to receive credits under CCIR on a one-to-one basis. All other renewable assets that did not receive credits under the previous standard that opted-in to the CCIR received carbon crediting up to the electricity sector performance standard under the CCIR until the end of 2019. Once wind projects' crediting standard under SGER protocol ends, these projects would also be able to opt into the CCIR system and be credited up to the performance standard.

On April 16, 2019, the United Conservative Party ("UCP") won the Alberta provincial election with a majority government. The UCP committed to move from the CCIR to a new regulation called the Technology Innovation and Emissions Reduction ("TIER") regulation. TIER replaced CCIR effective January 1, 2020. For the electricity sector, there were negligible changes between CCIR and TIER with renewable facilities continuing to receive crediting. The carbon prices for TIER in 2020 will remain at \$30/tCO₂e but Alberta has not yet confirmed future price increases in line with federal requirements. The performance standard benchmark remained at 0.370 tCO₂e/MWh. A review of TIER is not expected until 2023.

Facilities with emissions above the set benchmark will need to comply with TIER by: (i) paying into the TIER Fund; (ii) making reductions at their facility; (iii) remitting emission performance credits from other facilities; or (iv) remitting emission offset credits.

As required by the GGPPA, the Alberta government filed the TIER program details with the federal government. TIER was passed by the Alberta government on October 29, 2019 and on December 6, 2019 the federal government accepted the TIER regulation as compliant with the GGPPA for 2020.

TransAlta's thermal facilities attract compliance costs due to the carbon intensity associated of these facilities being above the TIER benchmark. TransAlta's renewable facilities generate carbon credits under TIER that are marketed to help mitigate carbon costs.

British Columbia

Beginning April 1, 2018, BC increased its carbon tax price to \$35/tCO₂e and committed to raise the price \$5 per year until it reaches \$50 per tonne in 2021. The tax has a negligible cost impact for the Corporation due to the nature of our assets in B.C.

Ontario

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

Large Emitter Greenhouse Gas Regulations

The Canadian federal GGPPA requires provinces to have GHG regulations and prices in place that align with the GGPPA. On October 23, 2018, the federal government announced that Ontario large emitters would be subject to the federal backstop OBPS regulation as of January 1, 2020. All covered industry facilities with annual emissions over 50,000 tCO₂e are automatically covered with an opt-in provision for those emitters between 10,000 and 50,000 tCO₂e annually.

Ontario large emitters are currently subject to the federal backstop OBPS regulation.

On July 4, 2019, the Government of Ontario released the final regulations for the provincial Greenhouse Gas Emissions Performance Standards ("EPS"). The EPS establishes GHG emission limits on covered facilities. Large emitters generating over 50,000 tonnes CO₂e ("tCO₂e") or more per year will be covered with an opt-in provision for those emitters between 10,000 and 50,000 tCO₂e annually. The carbon emissions limit for electricity is set at 420 tCO₂e/GWh. The program also provides a method that accounts for the carbon efficiency of cogeneration units. The federal government has not accepted the EPS as compliant with the GGPPA and the OBPS remains in force for reporting purposes for 2019 obligations.

Facilities with emissions above the set reduction requirements can comply by: (i) buying excess emission units from the regulator; (ii) making reductions at their facility; or (iii) using emission performance units generated by facilities emitting below their emission intensity limit. The first compliance period under the EPS will begin on January 1 in the year in which Ontario is removed from the list of provinces to which the federal OBPS applies. Ontario has submitted the EPS for federal review.

Most of our carbon costs flow through to our contract counterparties due to change of law provisions within our contacts.

Federal Pollution Pricing Fuel Charge ("Fuel Charge")

The federal government replaced the repealed Ontario carbon levy with the Fuel Charge on January 1, 2019. Ontario facilities covered by OBPS are exempt from the Fuel Charge.

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 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 post-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. TransAlta generates approximately \$10 to \$12 million annually.

Minnesota (MISO)

Minnesota has an 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.

New Hampshire (ISO-NE)

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 (PJM)

Pennsylvania has an RPS and is linked to the New England REC markets. PJM's capacity market's Minimum Offer Price Rule ("MOPR") is being revised. The Big Level wind facility does not sell its RECs to entities regulated by the RPS, so is not subject to MOPR capacity market bid requirements.

Washington

In 2010, the Washington Governor's office and Ecology negotiated agreements with TransAlta related to the operation of Centralia's two coal power 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 US Coal 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.

Wyoming

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

Australia

On December 13, 2014, the Australian government enacted legislation to implement the Emissions Reduction Fund (the "ERF"). The AU\$2.55 billion ERF is the centrepiece of the Australian government's policy and provides a policy framework to cut emissions by five per cent below 2000 levels by 2020 and 26 to 28 per cent below 2005 emissions by 2030. The ERF's safeguard mechanism, commencing from July 1, 2016, 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 Australian government has also committed to develop a National Energy Productivity Plan with a target to improve Australia's energy productivity by 40 per cent between 2015 and 2030. The ERF is not expected to have a material impact on our Australian assets as a result of the Australian assets being primarily composed of gas-fired generation. In addition, on June 23, 2015, the federal Australian government also reformed the Renewable Energy Target ("RET") scheme. The RET should add at least 33,000 GWh of renewable sources by 2020. This would double the amount of large-scale renewable energy being delivered compared to current levels and result in approximately 23.5 per cent of Australia's electricity generation being sourced from renewable projects.

Under the ERF safeguard mechanism, individual facility compliance requirements for emitting plants do not take effect unless the total electricity sector emissions exceed 198 MtCO_{2e} annually. Australia has not crossed this threshold and electricity sector emissions are trending downwards. As a result, the facilities have no carbon-related costs at this time.

TransAlta Activities

Reducing the environmental impact of our activities has a benefit not only to our operations and financial results, but to 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 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:

Renewable Power

We continue to invest in and build renewable power resources. We currently have four renewable projects that are either underway or recently completed totaling approximately 470 MW. In December 2019, we brought into service two wind farms located in the US totaling 119 MW. We also signed an agreement to purchase a 49 per cent stake in another wind farm of 136.8 MW located in the State of Washington. We are presently constructing an additional 207 MW of wind generation in Alberta. We are also developing a 10 MW battery storage project in Alberta with support from Emissions Reduction Alberta. We are aiming to test the technology and acquire knowledge in its application to meet customer needs. See "General Development of the Business - Three-Year History - Generation and Business Development".

We believe that a larger renewable portfolio provides increased flexibility in generation and creates incremental environmental value through RECs or through emission offsets. In addition, we have developed policies and procedures in order 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. We have installed mercury control equipment at all of our coal operations and we achieve an 80 per cent capture rate of mercury at all coal facilities. Our Keephills 3 plant uses supercritical combustion technology to maximize thermal efficiency, as well as sulphur dioxide capture and low oxides of nitrogen combustion technology. Uprate or energy efficiency projects completed at our Keephills and Sundance plants, including a 15 MW uprate finalized in 2015 at Sundance 3, have improved the energy and emissions efficiency of those units. In 2018 we commenced co-firing with gas at our merchant coal facilities in Alberta. This has resulted in a material reduction in the volume of emissions of CO₂/MWh from this fleet. In November 2019, we fully commissioned the Pioneer Pipeline significantly reducing the level of carbon emissions from our current co-fired coal units.

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 ensure 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. As indicated under "Risk Factors" in this AIF and within the "Governance and Risk Management" section of the Annual MD&A, 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, please refer to "Governance and Risk Management" in the Annual MD&A, which is incorporated by reference herein.

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

The operation and maintenance of our facilities involves 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. Certain of our generation facilities, particularly in Alberta, were constructed many years ago and may require significant capital expenditures to maintain peak efficiency or to maintain operations. There can be no assurance that our maintenance program will be able to detect potential failures in our facilities prior to occurrence or eliminate all adverse consequences in the event of failure. In addition, weather-related interference, work stoppages and other unforeseen problems may disrupt the operation and maintenance of our facilities and may materially adversely affect us.

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.

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

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

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, which 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.

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 regulation"). 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.

To comply with environmental regulations, we must incur material capital and operating expenditures relating to environmental monitoring, emissions and effluent control equipment and processes; emissions measurement, verification and reporting; emissions fees; and other compliance activities or obligations. We expect to continue to have environmental expenditures in the future. 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 Corporation subject to environmental regulation and the implementation of provincial, state and national GHG emissions, mercury emissions or other air emissions regulation which in themselves may not be aligned and 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 power purchase agreements, including Alberta 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.

In addition to environmental regulation, 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 Corporation, our operations and assets into compliance, which could have a material adverse effect on our business.

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 have become effective in both Canada and the US. Mandatory GHG emissions reductions requirements are expected to impose increased costs on our business, as is expected to be the case generally for thermal power producers in North America. We are subject to other air quality regulations, including mercury regulations. To the extent new or additional GHG, mercury or other air emission regulations may require us to incur costs that cannot be passed through to our customers under its power purchase agreements, the costs could be material and have a material adverse effect on our business. In terms of TransAlta's existing gas-fired facilities, we currently have change-in-law provisions allowing flow-through of carbon tax-related costs, and we expect that any new contracts will contain similar provisions.

Our surface mining operations are subject to laws and regulations establishing mining, environmental protection and reclamation standards for all aspects of surface mining. The estimated reclamation costs applicable to the Corporation's operations may be inaccurate and could require greater financial resources than currently anticipated. As a mine owner or operator, we must obtain 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 or operator, 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 while 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.

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 which 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 defence or that any claim or legal action that is decided adverse to us will not materially and adversely affect us. On April 23, 2019, Mangrove Partners Fund Ltd. ("Mangrove") commenced an action in the Ontario Superior Court of Justice, naming TransAlta, the incumbent members of the Board of Directors of TransAlta on such date, and Brookfield BRP Holdings (Canada), as defendants. Mangrove is seeking to set aside the Brookfield transaction and, if successful, this could be expected to have a material adverse impact on the Corporation, including its ability to continue to return capital through share buybacks and satisfy the upcoming \$400 million payable on the maturity of the medium term notes, while at the same time advancing its coal-to-gas conversion strategy and executing on other growth opportunities and strategic plans. See "*Legal Proceedings and Regulatory Actions*".

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

Unexpected increases in the Corporation's cost structure that are beyond the control of the Corporation 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.

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 plants 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.

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.

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 (e.g. 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 make 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 Corporation's development or construction projects, and delays in the completion of services, any of which may result in the Corporation incurring penalties under contracts, additional costs, or the cancellation of contracts.

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.

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

Hydroelectric, natural gas and coal-fired plants require continuous water flow for their operation. Shifts in weather or climate patterns, seasonable 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.

Wind is naturally variable. Therefore, the level of electricity produced from our wind facilities will also be 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 reflects 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.

Changes in the price of electricity and availability of fuel supplies required to generate 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. 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, including potentially the 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 accurately predict future electricity prices and electricity price volatility could have a material adverse effect on us.

We buy natural gas and a portion of our coal 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 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.

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 thermal facilities are reliant on having adequate natural gas and coal available to run the facilities 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 Thermal facility is sourced from the Powder River Basin in Montana and Wyoming through contracts to purchase and transport such coal to our Centralia Thermal facility. These existing coal contracts for the Centralia Thermal plant expire at the end of 2020. The loss of our suppliers or our inability to renew our existing coal contracts for Powder River Basin coal at favourable terms, 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.

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.

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 which 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.

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 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. For further information on posting collateral, please see Note 15(C) of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "Documents Incorporated by Reference" in this AIF.

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 policy 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 policy 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.

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 United States and Australia. These areas of operation are affected by competition ranging from large utilities to small independent power producers, as well as private equity and international conglomerates. 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 effecting the demand, generation, distribution or storage of electricity may also significantly impact our business and ability to compete.

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 which can be sold under PPAs is an important determinant of our revenues. Under certain PPAs, if the facility is not capable of generating electricity for the required availability in a given contract year, penalty payments may be payable to the relevant purchaser by us. The payment of any such penalties could adversely affect our revenues and profitability.

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.

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 farm. Variations in weather may be impacted by climate change resulting in sustained higher temperatures and rising sea levels which 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 Corporation to continue to generate electricity for such periods, and such circumstances could pose threats to the Corporation'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.

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 which may materially affect our future activities, our reputation or our 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.

Changes in opinions of our Corporation from external parties 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 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 depend on certain joint venture, strategic and other partners that may have interests or objectives which conflict with our objectives and such differences could have a negative impact on us.

We have entered into various types of 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 which are different from, or in conflict with, our objectives. Any such differences could have a negative impact on the Corporation'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 process 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.

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 which are technologically and economically competitive with those utilized 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.

Our information technology systems are vulnerable to damages from computer viruses, natural disasters, unauthorized access, cyberattack and other similar disruptions, all of which could have a material adverse effect on our business.

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. We have put in place a number of systems, processes, practices and data backups designed to protect against intentional or unintentional misappropriation or corruption of our systems and information or disruption of our operations. Despite our implementation of security measures, our information technology systems are vulnerable to damages from computer viruses, natural disasters, unauthorized access, cyberattack and other similar disruptions.

Any damage or failure that causes an interruption in operations could have an adverse effect on our customers. Additionally, we actively protect our generation facility infrastructure against physical damage, security breaches and service disruption from any of a variety of causes. Cyberattacks, theft, vandalism and other disruptions could jeopardize the security of information stored in and transmitted through our systems and network infrastructure, and could result in significant set-backs, potential liabilities and deter future customers. While we have systems, policies, hardware, practices, data backups, disaster recovery and procedures designed to prevent, detect or limit the effect of the failure, interruptions or security breaches of our generation facility and infrastructure, there can be no assurance that these measures will be sufficient and that such failures, interruptions or security breaches will not occur or, if they do occur, that they will be adequately addressed in a timely manner.

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 Corporation, its customers, partners or others with whom the Corporation has dealings. Cyberattackers may use a range of techniques, from exploiting vulnerabilities within our user-base, to using sophisticated malicious code on a single or distributed basis to try to breach our network security controls. Attackers may also use a combination of techniques in their attempt to evade safeguards such as firewalls, intrusion prevention systems and antivirus software that exist on our network infrastructure systems. A successful cyberattack

may allow for the unauthorized interception, destruction, use or dissemination of 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 have also established security awareness programs to help educate our users on cybersecurity risks and their responsibilities in helping protect the business.

While we have systems, policies, hardware, practices, data backups and procedures designed to prevent or limit the effect of security breaches of our 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 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 which 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.

Failure to close the second tranche of the Brookfield transaction, or Mangrove being successful in its claim to set aside the Brookfield transaction, could have a material adverse effect on our business.

If Mangrove is successful in its claim against the Corporation to have the Brookfield transaction set aside, and/or the second \$400 million tranche of the investment by Brookfield otherwise fails to close, this could have a material adverse effect on the Corporation, including its ability to continue to return capital through share buybacks, meet certain financial obligations, continue to advance its coal-to-gas conversion strategy and execute on other growth opportunities and strategic plans. The Corporation would likely need to raise additional cash or working capital through the public or private sale of debt or equity securities, sale of assets, funding from joint-venture or strategic partners, debt financing or short-term loans, and the terms of such transactions may be unduly expensive or burdensome to the Corporation relative to the terms of the Brookfield investment and disadvantageous to our existing shareholders. There can be no assurance that the Corporation would be successful in securing alternative sources of capital.

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

Our trading and marketing business frequently involves the establishment of trading positions in the wholesale energy markets on both a medium-term and short-term basis, 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, VaR, GMar, 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.

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 dollar denominated debt. Our exposures are primarily to the US and Australian currencies. 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 through the use of 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.

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 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 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 of projects and to help pay 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; (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 (including the coal-to-gas conversions), 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 Corporation's debt securities will be structurally subordinated to any debt of our subsidiaries that are 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 will not have an obligation to pay amounts due, or make any funds available for payment 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.

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, prior to 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 which 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.

Changes in statutory or contractual restrictions may have an adverse effect on our ability to service debt obligations.

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

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.

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 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) purchase agreements, when forward commodity prices are less than contracted prices; and (b) 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 prior to 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 which could have a material adverse effect on our business.

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 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, do not cover losses as a result of force majeure, natural disasters, terrorist or cyberattacks or sabotage, among other things. 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 any 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 Corporation 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. We successfully renegotiated four collective bargaining agreements, involving 475 of our employees in 2019. In 2020, we will renegotiate six collective bargaining agreements, involving 270 employees. There is one collective agreement, covering eight employees, scheduled for renegotiation in 2021. 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 Corporation is required to develop and retain a skilled workforce for its operations. Many of the employees of the Corporation possess specialized skills and training and the Corporation must compete in the marketplace for these workers. As at December 31, 2019, we had 1,543 active employees, which includes full-time, part-time and temporary employees, of which 573 were employed in our Canadian Coal segment (including our SunHills mining operation), 197 were employed in our US Coal segment, 198 were employed in our Gas segment, 84 were employed in our Wind and Solar business, 81 were employed in our Hydro business, 73 were employed in our Energy Marketing business and the remaining 337 employees were employed in our Corporate segment. Approximately 45 per cent of our employees are represented by labour unions. We are currently a party to 12 different collective bargaining agreements. In 2019, we renegotiated four collective bargaining agreements and we expect to renegotiate six in 2020.

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 March 3, 2020, there were 277,075,741 common shares outstanding and 10,175,380 Series A Shares, 1,824,620 Series B Shares, 11,000,000 Series C Shares, 9,000,000 Series E Shares and 6,600,000 Series G Shares outstanding. The Corporation does not have any escrowed securities.

Common Shares

Each common share of TransAlta Corporation entitles the holder thereof to one vote for each common share held at all meetings of shareholders of the Corporation, 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 pre-emptive rights. The common shares are not entitled to cumulative voting.

Normal Course Issuer Bid

On May 27, 2019, the TSX accepted our 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 five 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 commenced on May 29, 2019, and ends on May 28, 2020, or such earlier date on which the maximum number of common shares are purchased under the NCIB or the NCIB is terminated at the Corporation's election.

Under TSX rules, not more than 176,447 common shares (being 25 per cent of the average daily trading volume on the TSX of 705,788 common shares for the six months ended April 30, 2019) 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.

In connection with the investment by Brookfield, the Corporation has indicated that it intends to return up to \$250 million of capital to shareholders through share repurchases within three years of receiving the first tranche of the investment (which occurred on May 1, 2019).

During the year ended December 31, 2019, the Corporation purchased and cancelled 7,716,300 common shares at an average price of \$8.80 per common share, for a total cost of \$68 million. For further information please see Note 26 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "*Documents Incorporated by Reference*" in 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 TransAlta Corporation 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 Corporation, 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 TransAlta Corporation 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 Corporation, or a reduction of stated capital, no sum shall be paid or assets distributed to holders of other shares of TransAlta Corporation 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 Corporation.

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

12.0 million Series A Shares were issued on December 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. 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 are redeemable by TransAlta, at its option, in whole or in part, on March 31, 2016, 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 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 have 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 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 (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, 2016, 1,824,620 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 Corporation 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 Corporation.

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

1,824,620 Series B Shares were issued on March 31, 2016. 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 (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 of TransAlta (the "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.

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 Corporation 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 Corporation

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

11.0 million cumulative redeemable rate reset first preferred shares, Series C (the "Series C Shares") were issued on November 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 of TransAlta (the "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 Corporation 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 Corporation.

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

9.0 million cumulative redeemable rate reset first preferred shares, Series E (the "Series E Shares") were issued on August 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 TransAlta Corporation 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 TransAlta Corporation, at its option, in whole or in part, on September 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 September 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, Series F of TransAlta (the "Series F Shares"), subject to certain conditions, on September 30,

2017, and will again have the right to convert on September 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 September 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 September 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 Corporation 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 Corporation.

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 (the "Series G Shares") were issued on August 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 TransAlta Corporation 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 are redeemable by TransAlta Corporation, at its option, in whole or in part, on September 30, 2019, and 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 have the right to convert all or any of their shares into cumulative redeemable floating rate first preferred shares, Series H of TransAlta (the "Series H Shares"), subject to certain conditions, on September 30, 2019, and 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 September 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 September 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 Corporation 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 Corporation.

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.

Related Party Articles Provisions

The articles of the Corporation contain provisions restricting the ability of the Corporation 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 Corporation, 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% of the outstanding voting shares of the Corporation. 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 which are considered to be Specified Transactions include the following: a merger or amalgamation of the Corporation with a Major Shareholder; the furnishing of financial assistance

by the Corporation to a Major Shareholder; certain sales of assets or provision of services by the Corporation to a Major Shareholder or vice versa; certain issuances of securities by the Corporation which increase the proportionate voting interest of a Major Shareholder; a reorganization or recapitalization of the Corporation which increases the proportionate voting interest of a Major Shareholder; and the creation of a class or series of non-voting shares of the Corporation which has a residual right to participate in earnings of the Corporation and assets of the Corporation upon dissolution or winding up.

Shareholder Rights Plan

The Corporation implemented a shareholder rights plan (the "Rights Plan") pursuant to a Shareholder Rights Plan Agreement (the "*Rights Plan Agreement*") dated as of October 13, 1992, as amended and restated as of April 26, 2019, between the Corporation 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 November 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 2019, we renewed our syndicated credit agreement giving us access to a \$1.25 billion committed credit facility. The agreement is fully committed for four years, expiring in 2023. The credit facility is subject to a number of customary covenants and restrictions in order to maintain access to the funding commitments. 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 the repayment of 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 for four years, and in the second quarter of 2019 was amended from \$500 million to \$700 million and extended to 2023. The credit facility is subject to a number of customary covenants and restrictions in order to maintain access to the funding commitments. For further information please see Note 23 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "*Documents Incorporated by Reference*" in this AIF.

Long-Term Debt

The long-term debt of the Corporation consists of \$651 million face value of debentures outstanding, which bear interest at fixed rates ranging from 5.0 per cent to 7.3 per cent and have maturity dates ranging from 2020 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. For further information please see Note 23 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "*Documents Incorporated by Reference*" in this AIF.

Exchangeable Securities

On March 25, 2019, the Corporation announced that it had entered into a definitive investment agreement dated as of March 22, 2019 (the "Investment Agreement") whereby Brookfield agreed to invest \$750 million in the Corporation through the purchase of exchangeable securities (the "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 (the "Option to Exchange"). The Exchangeable Securities will be issued in two tranches, with the first having occurred on May 1, 2019 consisting of \$350 million of 7% unsecured subordinated debentures due May 1, 2039 and the second consisting of \$400 million of a new series of redeemable, retractable first preferred shares to be issued at a second closing in October 2020. The Investment Agreement, together with an Exchange and Option Agreement (the "E&O Agreement") entered into by the parties concurrently with the closing of the first tranche of the investment, gives Brookfield the Option to Exchange all of the outstanding exchangeable securities into up to a maximum 49% equity ownership interest in TransAlta's Alberta Hydro Assets after December 31, 2024. The Investment Agreement and the E&O Agreement also give TransAlta the right to redeem the Exchangeable Securities at any time after December 31, 2028, subject to certain terms and conditions, if Brookfield chooses not to exercise its Option to Exchange. See "*Investment Agreement and E&O Agreement*" below.

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 Corporation 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 9%, 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, the Corporation included two nominees of Brookfield on its slate of directors for election at the Corporation's 2019 annual and special meeting 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 December 31, 2023 (the "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 the Brookfield (the "Standstill"), with customary exceptions, which will be in effect for three years starting from May 1, 2019 (the "Standstill Period"). Among other things, the Standstill prohibits the Brookfield from acquiring an ownership interest in the Corporation above 19.9% of the common shares. During the Standstill Period, Brookfield has also agreed that it will: (i) vote in favour of each director nominated by the Board; (ii) vote against any shareholder nomination for directors that is not approved by the Board; (iii) vote against any proposal or resolution to remove any Board member; and (iv) 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 Corporation 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 Corporation on May 1, 2019 (the "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 (a "Demand Registration") to the Corporation 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 Corporation of a Demand Registration, the Corporation 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 Corporation will not be obligated to effect: (i) more than three Demand Offerings in total during the term of the Registration Rights Agreement; or (ii) a Demand Offering if the Registrable Securities have an aggregate market price of less than \$50 million.

If at any time the Corporation proposes to file a prospectus supplement with respect to the distribution of any TransAlta common shares to the public, then the Corporation 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 which 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 Corporation will use commercially reasonable efforts to include in such Prospectus Supplement such Registrable Securities (a "Piggy Back Offering"), unless the Corporation's managing underwriter or underwriters determines, in good faith, that including such Registrable Securities in the distribution

would, in their opinion, adversely affect the Corporation's distribution or sales price of the securities being offered by the Corporation.

The Demand Offerings and Piggy Back Offerings are subject to various conditions and limitations. The Corporation 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 Corporation 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 Corporation will pay all applicable fees and expenses incident to the Corporation'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 Corporation receives the offering request, the Corporation 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 Corporation in such offering. The Corporation 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 Corporation will pay all selling expenses with respect to any Securities sold for the account of the Corporation. The Corporation 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 Corporation, 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 3% 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 urged to read these documents in their entirety.

Non-Recourse Debt

The Corporation has non-recourse debt outstanding in an amount equal to approximately \$1,157 million face value, which is represented by bonds and debentures that bear interest at rates ranging from 2.95 per cent to 6.02 per cent and have maturity dates ranging from 2028 to 2032. For further information please see Note 23 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "*Documents Incorporated by Reference*" in this AIF.

Tax Equity

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 Big Level and Antrim wind projects. In December 2019, coinciding with each site achieving commercial operation, TransAlta received funding of approximately US\$41 million and US\$85 million, respectively.

The Corporation also assumed US\$24 million in tax equity financing as part of the acquisition of the Lakeswind wind facility in 2015. Under IFRS tax equity financings are included as debt in our consolidated financial statements. For further information on tax equity please see Note 23 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. Please also see "*Documents Incorporated by Reference*" in 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 Corporation'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.

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 Corporation'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 strengthening our financial position and cash flow coverage ratios to ensure a strong balance sheet is maintained and sufficient financial capital is available. Our credit ratings as of December 31, 2019 are as follows:

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

Note:

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

In 2019, Moody's reaffirmed its issuer rating of Ba1 and revised its rating outlook to stable from positive. During 2019, DBRS Limited reaffirmed the Corporation's Unsecured Debt rating and Medium-Term Notes rating of BBB (low), the Preferred Shares rating of Pfd-3 (low) and Issuer Rating of BBB (low) with a stable outlook; Standard and Poor's lowered the Corporation's Unsecured Debt rating and Issuer Rating to BB+ with a stable outlook; and Fitch Ratings lowered our Unsecured Debt rating and Issuer Rating to BB+ with a stable outlook. In Q4 2019, we decided not to renew our rating services with Fitch and the active rating from Fitch expired on January 31, 2020.

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 December 31, 2019, our issuer rating was BBB (low) (stable) from DBRS. A BBB rating is the fourth highest out of ten 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 fulfill 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 which 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. As of December 31, 2019, our senior unsecured long-term debt is rated BBB (low) (stable) by DBRS. The BBB rating category is the fourth highest of ten categories for long term obligations.

Fitch

As of December 31, 2019, our Fitch long term Issuer Default Rating (IDR) and senior unsecured rating was BB+ with a stable outlook. The Fitch rating system describes a BB rating as speculative. BB ratings indicate that there is an elevated vulnerability to default risk, particularly when faced with uncertainties or challenges in the business or economic environment over time. However, business and/or financial flexibility exists that supports the servicing of financial commitments. The modifiers + or - may be appended to a rating to denote relative status within major rating categories.

Such suffixes are added to Long-Term Issuer Default Ratings between AA and B. A BB rating is the fifth highest of 11 rating categories.

Ratings of individual securities or financial obligations of a corporate issuer address relative vulnerability to default on an ordinal scale. As of December 31, 2019, our senior unsecured rating was BB+. The Fitch rating system describes a BB rating as speculative. BB ratings indicate that there is an elevated vulnerability to default risk, particularly when faced with uncertainties or challenges in the business or economic environment over time. However, business and/or financial flexibility exists that supports the servicing of financial commitments. The modifiers + or - may be appended to a rating to denote relative status within major rating categories. Such suffixes are added to obligation rating categories, or to corporate finance obligation ratings between AA and CCC. A BB rating is the fifth highest of nine rating categories.

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 December 31, 2019, 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 December 31, 2019, 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 December 31, 2019, our Loss Given Default 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

A Standard & Poor's 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 December 31, 2019, 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.

A Standard & Poor's 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 Standard & Poor's 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 Standard & Poor's 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. A Standard & Poor's 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 Standard & Poor's. Each of our outstanding Preferred Shares Series have been rated P-34(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. As a result, we can be selective as to if and when we go to the capital markets for funding.

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, Fitch, Moody's and S&P 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, Fitch, Moody's or S&P in the future if, in its judgement, circumstances so warrant.

We have paid fees for rating services to DBRS, Fitch, Moody's and S&P during the last two years. We have also paid fees to DBRS for certain other services provided to the Corporation during the last two years.

DIVIDENDS

Common Shares

Dividends on our common shares are at the discretion of the Board. In determining the payment and level of future dividends, the Board considers our financial performance, our 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
2017 First Quarter	\$0.04
2017 Second Quarter	\$0.04
2017 Third Quarter	\$0.04
2017 Fourth Quarter	\$0.04
2018 First Quarter	\$0.04
2018 Second Quarter	\$0.04
2018 Third Quarter	\$0.04
2018 Fourth Quarter	\$0.04
2019 First Quarter	\$0.04
2019 Second Quarter	\$0.04
2019 Third Quarter	\$0.04
2019 Fourth Quarter	\$0.04

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
2017 First Quarter	\$0.16931
Second Quarter	\$0.16931
Third Quarter	\$0.16931
Fourth Quarter	\$0.16931
2018 First Quarter	\$0.16931
Second Quarter	\$0.16931
Third Quarter	\$0.16931
Fourth Quarter	\$0.16931
2019 First Quarter	\$0.16931
Second Quarter	\$0.16931
Third Quarter	\$0.16931
Fourth Quarter	\$0.16931

Series B Shares

Period	Dividend per Series B Share
2017 First Quarter	\$0.15651
Second Quarter	\$0.15645
Third Quarter	\$0.16125
Fourth Quarter	\$0.17467
2018 First Quarter	\$0.17889
Second Quarter	\$0.19951
Third Quarter	\$0.20984
Fourth Quarter	\$0.22301
2019 First Quarter	\$0.23073
Second Quarter	\$0.23136
Third Quarter	\$0.23422
Fourth Quarter	\$0.23113

Series C Shares

Period	Dividend per Series C Share
2017 First Quarter	\$0.2875
Second Quarter	\$0.2875
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169
2018 First Quarter	\$0.25169
Second Quarter	\$0.25169
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169
2019 First Quarter	\$0.25169
Second Quarter	\$0.25169
Third Quarter	\$0.25169
Fourth Quarter	\$0.25169

Series E Shares

Period	Dividend per Series E Share
2017 First Quarter	\$0.3125
Second Quarter	\$0.3125
Third Quarter	\$0.3125
Fourth Quarter	\$0.32463
2018 First Quarter	\$0.32463
Second Quarter	\$0.32463
Third Quarter	\$0.32463
Fourth Quarter	\$0.32463
2019 First Quarter	\$0.32463
Second Quarter	\$0.32463
Third Quarter	\$0.32463
Fourth Quarter	\$0.32463

Series G Shares

Period	Dividend per Series G Share
2017 First Quarter	\$0.33125
Second Quarter	\$0.33125
Third Quarter	\$0.33125
Fourth Quarter	\$0.33125
2018 First Quarter	\$0.33125
Second Quarter	\$0.33125
Third Quarter	\$0.33125
Fourth Quarter	\$0.33125
2019 First Quarter	\$0.33125
Second Quarter	\$0.33125
Third Quarter	\$0.33125
Fourth Quarter	\$0.31175

MARKET FOR SECURITIES

Common Shares

Our common shares are listed on the Toronto Stock Exchange (the "TSX") under the symbol "TA" and the New York Stock Exchange (the "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>2019</u>			
March	10.04	7.84	21,770,128
April	10.14	8.96	16,108,565
May	9.17	8.54	16,291,015
June	8.96	7.87	15,161,974
July	8.57	7.89	8,593,480
August	8.76	7.60	8,338,545
September	9.01	8.39	8,572,313
October	8.81	7.55	7,866,106
November	9.02	7.59	10,594,762
December	9.41	8.64	11,019,292
<u>2020</u>			
January	9.96	8.56	12,431,669
February	11.23	9.76	19,683,522
March 1-2	10.47	9.92	1,830,908

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
December 10, 2010 ⁽¹⁾	12,000,000 Series A Shares	\$25.00	Public Offering

Notes:

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

Month	Price (\$)		Volume
	High	Low	
2019			
March	12.76	11.10	386,215
April	12.81	11.80	179,457
May	12.85	12.15	226,551
June	12.55	10.08	324,902
July	11.27	10.68	360,909
August	10.89	9.52	147,914
September	10.82	9.95	285,018
October	10.98	10.07	209,314
November	11.69	10.81	239,915
December	11.90	10.80	174,938
2020			
January	12.11	11.43	226,270
February	11.91	10.20	470,997
March 1-2	10.46	10.21	8,256

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

Note:

(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.

Month	Price (\$)		Volume
	High	Low	
<u>2019</u>			
March	13.38	12.10	29,003
April	13.51	12.82	20,861
May	13.30	12.50	62,546
June	13.10	10.64	83,324
July	11.71	11.11	32,500
August	11.65	10.39	42,765
September	11.66	10.31	45,590
October	11.65	10.77	26,939
November	12.30	11.00	57,931
December	12.10	11.16	42,324
<u>2020</u>			
January	13.08	11.64	12,397
February	12.35	9.57	40,391
March 1-2	11.10	11.10	100

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
November 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 November 23, 2011 to a short form base shelf prospectus dated November 15, 2011.

Month	Price (\$)		Volume
	High	Low	
<u>2019</u>			
March	16.44	14.15	107,828
April	16.24	15.42	45,787
May	16.00	14.72	113,260
June	14.87	12.26	250,279
July	14.05	12.95	530,299
August	13.21	12.40	211,361
September	14.15	12.66	278,007
October	14.24	13.42	569,238
November	14.93	14.10	307,553
December	15.11	14.00	121,892
<u>2020</u>			
January	15.44	14.70	282,429
February	15.19	13.51	105,334
March 1-2	13.70	13.35	16,500

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
August 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 August 3, 2012 to a short form base shelf prospectus dated November 15, 2011.

Month	Price (\$)		Volume
	High	Low	
<u>2019</u>			
March	19.11	16.70	320,252
April	19.16	17.60	70,091
May	18.76	17.31	77,571
June	17.69	14.55	305,563
July	16.94	16.00	328,030
August	16.38	15.13	132,458
September	16.60	15.14	553,855
October	16.59	15.92	337,964
November	17.30	16.41	233,758
December	17.31	16.35	154,732
<u>2020</u>			
January	17.74	16.96	255,685
February	17.45	15.72	162,972
March 1-2	16.16	15.85	12,600

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
August 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 August 8, 2014 to a short form base shelf prospectus dated December 9, 2013.

Month	Price (\$)		Volume
	High	Low	
<u>2019</u>			
March	20.00	17.47	108,296
April	19.99	18.76	52,981
May	19.49	18.40	53,490
June	18.73	15.53	95,481
July	17.35	16.15	267,796
August	16.50	15.28	119,202
September	16.85	15.25	243,134
October	16.79	16.07	114,074
November	17.60	16.65	141,404
December	17.99	16.46	146,931
<u>2020</u>			
January	18.48	17.60	106,547
February	18.10	16.26	141,552
March 1-2	16.52	16.35	1,600

DIRECTORS AND OFFICERS

The name, province or state and country of residence of each of our directors as at December 31, 2019, 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 a national leader, 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, Ms. Ambrose 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. Ms. Ambrose 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 finally 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. Ms. Ambrose also serves on the advisory board of the Canadian Global Affairs Institute. Ms. Ambrose is also a director of Manulife Financial Corporation, Coril Holdings Ltd. and Andlauer Healthcare Group. She has a BA from the University of Victoria and an MA 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 Governance, Safety and Sustainability Committee of the Board. The Board has appointed Mr. Dielwart as successor Chair of the Board to take effect immediately following the 2020 annual meeting of shareholders, subject to him being re-elected as a director at that meeting. 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 January 1, 2013, Mr. Dielwart re-joined ARC Financial Corp. ("ARC Financial") as Vice-Chairman. ARC Financial is Canada's leading energy-focused private equity manager. He is a member of ARC Financial's Investment and Governance committees, and currently represents ARC Financial on the boards of Modern Resources Ltd. and Aspenleaf Energy Limited. Prior to joining ARC Financial in 1994, Mr. Dielwart spent 12 years with a major Calgary-based oil and natural gas engineering consulting firm, as senior vice-president and a director, where he gained extensive technical knowledge of oil and natural gas properties in Western Canada. Mr. Dielwart has a Bachelor of Science with distinction (civil engineering) degree from the University of Calgary. He is a member of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) and is a past Chairman of the Board of Governors of the Canadian Association of Petroleum Engineers (CAPP). 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 is a director and former Co-Chair of the Calgary and Area Child Advocacy Centre. He is also a director of Crescent Point Energy Corp.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Dawn L. Farrell Alberta, Canada	2012	Mrs. Farrell became President and Chief Executive Officer of TransAlta Corporation on January 2, 2012. Prior to her appointment, she served as Chief Operating Officer from 2009 to 2011. Mrs. Farrell has over 34 years of experience in the electric energy industry, holding roles at TransAlta and BC Hydro. She has served as Executive Vice-President, Commercial Operations and Development; Executive Vice-President, Corporate Development; Executive Vice-President, Independent Power Projects; and Vice-President, Energy Marketing and IPP Development at TransAlta Corporation. From 2003 to 2006, Mrs. Farrell served as Executive Vice-President, Generation at BC Hydro. From 2006 to 2007, she served as BC Hydro's Executive Vice-President Engineering, Aboriginal Relations and Generation. Mrs. Farrell sits on the board of directors of The Chemours Company, an NYSE-listed chemical company, and the Alberta Business Council. Her past boards include The Conference Board of Canada, the Business Council of Canada, the Calgary Stampede, the Mount Royal College Board of Governors, Fording Coal Income Fund, New Relationship Trust Fund, Mount Royal College Foundation and Vision Quest Windelectric. Mrs. Farrell holds a Bachelor of Commerce with a major in Finance and a Master's degree in Economics from the University of Calgary. She has also attended the Advanced Management Program at Harvard University.
Robert C. Flexon Texas, U.S.A.	2019	Robert C. Flexon is the former President and Chief Executive Officer of Dynegy Inc. from 2011 until its acquisition by Vistra Energy Corp. in April 2018. Dynegy Inc. was a U.S. independent power producer engaged in the operation of power generating facilities and listed on the NYSE. Prior to Dynegy, Mr. Flexon also served as the Chief Financial Officer of UGI Corporation and also NRG Energy. In 2009, he served as President and CEO of Foster Wheeler's U.S. subsidiary and then he served as Chief Executive Officer of Foster Wheeler, a global engineering and construction contractor and power equipment supplier. Mr. Flexon has also held executive positions at NRG Energy, Inc. and has held key finance and accounting positions with Hercules, Inc. and Atlantic Richfield Company. Mr. Flexon serves on the Board of Directors of Capstone Turbine Corporation and Charah Solutions, Inc. Mr. Flexon holds a Bachelor of Science degree in Accounting from Villanova University. He also serves on the board of Genesys Works-Houston, an organization that transforms the lives of disadvantaged high school students through meaningful work experiences.
Alan J. Fohrer California, U.S.A.	2013	Mr. Fohrer was Chairman and Chief Executive Officer of Southern California Edison Company ("SCE"), a subsidiary of Edison International ("Edison") and 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 the international projects, which enhanced the value of the assets sold in subsequent years. Mr. Fohrer also served as Executive Vice-President, Treasurer and Chief Financial Officer of both Edison and SCE from 1995 to 1999. After 37 years with Edison, Mr. Fohrer retired in December 2010. Mr. Fohrer currently sits on the boards of PNM Resources, Inc., a publicly held energy holding company, Blue Shield of California, a non-profit health insurance provider, and Synagro, a waste management company. Mr. Fohrer has served on boards of directors of the Institute of Nuclear Power Operations, the California Chamber of Commerce, Duratek, Inc., and Osmose Utilities Services, Inc. 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 Centre Foundation. 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.
Amb. Gordon D. Giffin Georgia, U.S.A.	2002	Ambassador Giffin is Senior Partner of the law firm of Dentons (formerly McKenna Long & Aldridge LLP), where he maintains offices in Washington, D.C. and Atlanta. His practice focuses on international transactions related to trade, energy and public policy. He has been engaged in the practice of law or government service for more than 40 years. He served as the United States Ambassador to Canada with responsibility for managing Canada/U.S. bilateral relations, including energy and environmental policy from August 1997 to April 2001. Prior to that, he served as Chief Counsel and Legislative Director to United States Senator Sam Nunn, with responsibility for the legal and legislative operations of the office. Ambassador Giffin has spent three decades as an attorney in the energy industry as an advisor, trying multiple energy regulatory cases before state and federal tribunals and courts, and handling transactions including mergers and acquisitions. During a decade in public service, he was a senior attorney and advisor in the United States Senate where, among other matters, he worked on major energy public policy initiatives. During his four years as United States Ambassador to Canada, his responsibilities included the entire array of policy matters in the Canada-U.S. context including energy policy. He has substantial experience in dealing with issues at the intersection of industry and public policy. Since leaving public office, he resumed his continental law practice and remains actively engaged in public policy initiatives and international affairs through membership in the Council on Foreign Relations and the Trilateral Commission. Ambassador Giffin holds a Bachelor of Arts from Duke University (Durham, NC) and a Juris Doctorate from Emory University School of Law (Atlanta, GA).

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 (OEB) Chair's Advisory Roundtable and the Ontario Independent Electricity Operator (IESO) CEO Roundtable on Market Renewal. Mr. Goldgut also serves on the Boards of Directors of: Terraform Power, Inc. an owner and operator of a renewable power portfolio in North America and Western Europe, where he acts as Chair of the Nominating and Governance Committee; 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.
Richard Legault Quebec, Canada	2019	Mr. Legault is Vice Chair of Brookfield's Renewable Group. Prior to his current role, Mr. Legault served as Chief Executive Officer of Brookfield Renewable Partners from 1999 to August 2015, during which time he led the growth of Brookfield's renewable power operations globally, helping to make Brookfield Renewable one of the world's largest publicly traded, pure play renewable power portfolios. From 2015 to 2018, he served as Executive Chairman of the Brookfield Renewable Group. Mr. Legault was Chief Financial Officer of Brookfield Asset Management from 2000 to 2001, prior to which he held several senior positions in operations, finance, and corporate development with Brookfield's forest products operations. Serving at Brookfield for over 31 years, Mr. Legault has been described as instrumental in developing Brookfield's renewable business, which is well-established in North America, South America and Europe. Mr. Legault also serves on the Board of Directors of Terraform Power, Inc., an owner and operator of a renewable power portfolio in North America and Western Europe; and Westinghouse Corporation, one of the largest nuclear technology and services companies globally, and serves as chair of its Risk Committee. Mr. Legault received a Bachelor of Accounting from the Université du Québec in Hull and is a member of the Chartered Professional Accountants of Canada (CPA, CA).
Yakout Mansour California, U.S.A.	2011	Mr. Mansour has over 40 years of experience as both a professional engineer and executive in the electric utility business in Canada, the United States, and abroad. He retired as President and Chief Executive Officer of the California Independent System Operator Corporation ("CAISO") in 2011, a position he had held since 2005. CAISO is responsible for operating and controlling 80 per cent of the California electric grid, designing and operating the California electricity market, and for settlements of over \$8 billion annually. Under Mr. Mansour's leadership, the California market structure was completely redesigned, and CAISO established the market and technical foundation to accommodate one of the most aggressive renewable portfolio standards in the world. Prior to that, Mr. Mansour served in senior executive roles at BC Hydro and British Columbia Transmission Corporation where he was responsible for operation, asset management, and inter-utility affairs of the electric grid. In 2009, Mr. Mansour was named to the U.S. Department of Energy Electricity Advisory Committee as a vice chair. He also served on the various committees of the North American Electric Reliability Corporation and its predecessor organization, CEGRE, the Transmission Council of the Canadian Electric Association, and the Board of Directors of the Electric Power Research Institute. A Retired Professional Engineer and a Fellow of the Institute of Electrical and Electronics Engineers, Mr. Mansour has authored and co-authored numerous publications. He is recognized internationally in the field of power engineering and received several distinguished awards for his contributions to the industry. Mr. Mansour holds a Bachelor of Science in electrical engineering from the University of Alexandria (Alexandria, Egypt) and a Master of Science from the University of Calgary (Calgary, AB). Mr. Mansour brings to the Corporation and the Board decades of experience in our industry in generation, transmission and energy competitive markets in both a regulated and deregulated market environment. His technical and operational expertise provide an important diversity of thought and perspective to the Board.

Name, Province (State) and Country of Residence	Year First Became Director	Principal Occupation
Georgia R. Nelson Illinois, U.S.A.	2014	At TransAlta, Ms. Nelson is the Chair of the Human Resources Committee of the Board. Ms. Nelson was President and Chief Executive Officer of PTI Resources, LLC, an independent consulting firm, from 2005 to 2019. Ms. Nelson has had a 35-year career in the power generation industry, serving in various senior executive capacities for Edison International and its subsidiaries between 1971 and 2005. She was President of Midwest Generation Edison Mission Energy (EME), an independent power producer, from 1999 to her retirement in 2005 and General Manager of EME Americas, from 2002 to 2005. Ms. Nelson has extensive experience in electric and renewable energy operations, international business negotiations, environmental policy matters and human resources. Ms. Nelson is currently a director of Cummins Inc., Ball Corporation, and Sims Metal Management Ltd. She was a director of CH2MHILL Corporation, a privately held company, until December 2017. Ms. Nelson is a past director of Nicor, Inc. Ms. Nelson was a member of the Executive Committee of the National Coal Council from 2000 to 2015 and served as Chair from 2006 to 2008. She serves on the advisory committee of the Center for Executive Women at Northwestern University. Ms. Nelson was named to the 2012 National Association of Corporate Directors ("NACO") Directorship 100. She is an NACO Board Fellow. Ms. Nelson holds a Bachelor of Science from Pepperdine University and a Master of Business Administration from the University of Southern California.
Beverlee F. Park British Columbia, Canada	2015	Ms. Park is the Chair of the Audit, Finance and Risk Committee of the Board as of April 19, 2018. She is also a director and Chair of the Audit Committee of SSR Mining Inc. (TSX/NASDAQ-listed), a public mining company, focused on the operation, development, exploration and acquisition of precious metals projects in North and South America. Ms. Park was a member of the Board of Directors of Teekay LNG Partners where until June 2019 she chaired the Audit Committee. She was also a member of the Board of Governors at the University of British Columbia until June 30, 2018 where she chaired the Employee Relations Committee, and a member of the Board of Directors of InTransit BC until October 2018 where she chaired the Audit Committee. Ms. Park was previously a director of the BC Transmission Corporation, where she also chaired the Audit Committee and Capital Review Committee. Ms. Park has executive and board experience in a range of industries, including electricity transmission, forest products, shipping, mining, transportation and real estate. Ms. Park spent 17 years of her career with TimberWest Forest Corp. where she was most recently Chief Operations Officer until her retirement in 2013. During 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 holds a Bachelor of Commerce with distinction from McGill University (Montreal, QB), a Master of Business Administration from the Simon Fraser University Executive program and is also a Fellow of the Chartered Professional Accountants (FCPA) and Fellow of the Chartered Professional Accountants of British Columbia.
Bryan D. Pinney Alberta, Canada	2018	Bryan Pinney is the principal of Bryan D. Pinney Professional Corporation. Mr. Pinney is currently the lead director for North American Construction Group Ltd. He is also a director of a Hong Kong-listed oil and gas company, Persta Resources Inc., and of Sundial Growers Inc., a NASDAQ-listed company. Mr. Pinney was also the recent chair of the Board of Governors of Mount Royal University and has previously served on a number of non-profit boards. He is also a director of one private company. 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 has over 30 years of experience serving many of Canada's largest corporations, primarily in energy and resources and construction. Mr. Pinney was a partner with Deloitte between 2002 and 2015. Mr. Pinney served as Calgary Managing Partner 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's Board of Directors and chair of the Finance and Audit Committee. Prior to joining Deloitte, Mr. Pinney was a partner with Andersen LLP and served as Calgary Managing Partner from 1991 through May of 2002.

Officers

The name, province or state and country of residence of each of our executive officers as at March 3, 2020, their respective position and office and their respective principal occupation are set out below.

Name	Principal Occupation	Residence
Dawn L. Farrell	President and Chief Executive Officer	Alberta, Canada
Wayne Collins	Executive Vice-President, Generation	Alberta, Canada
Dawn E. de Lima	Chief Shared Services Officer	Alberta, Canada
Jane Fedoretz	Chief Talent and Transformation Officer	Alberta, Canada
Brett M. Gellner	Chief Development Officer	Alberta, Canada
John H. Kousinioris	Chief Operating Officer	Alberta, Canada
Kerry O'Reilly Wilks	Chief Officer, Legal, Regulatory and External Affairs	Alberta, Canada
Todd J. Stack	Chief Financial Officer	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:

- Prior to August 2019, Ms. de Lima was Chief Officer, Business & Operational Services. Prior to July 2018, Ms. de Lima was Chief Administrative Officer. Prior to July 2015, Ms. de Lima was Chief Human Resources Officer of TransAlta. Prior to April 2012, Ms. de Lima was Chief Human Resources Officer and Executive Vice-President, Communications of TransAlta.
- Prior to August 2019, Mr. Gellner was Chief Investment and Strategy Officer. Prior to November 2018, Mr. Gellner was Interim Chief Financial Officer and Chief Strategy and Investment Officer of the Corporation. Prior to July 2018, Mr. Gellner was Chief Investment Officer of the Corporation. Prior to August 2013, Mr. Gellner was Chief Financial Officer of the Corporation.
- Prior to November 2018, Ms. Fedoretz was Counsel, Energy Group at Blake, Cassels & Graydon LLP.
- Prior to August 2019, Mr. Kousinioris was Chief Growth Officer. Prior to July 2018, Mr. Kousinioris was Chief Legal and Compliance Officer and Corporate Secretary of the Corporation. Prior to October 2015, Mr. Kousinioris was Chief Legal and Compliance Officer of TransAlta. Prior to December 2012, Mr. Kousinioris was a Partner and co-head of the Corporate Commercial Group at Bennett Jones LLP, Barristers and Solicitors.
- Prior to August 2019, Ms. O'Reilly Wilks was Chief Legal & Compliance Officer. Prior to November 2018, Ms. O'Reilly Wilks was Head of Legal, North Atlantic & UK, for Vale S.A. (Base Metal Business), one of the largest companies in the world.
- Prior to May 2019, Mr. Stack was Managing Director and Corporate Controller. 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 August 2019, Mr. Collins was Executive Vice President Coal and Mining Operations. Prior to May 2014, Mr Collins was Chief Operating Officer of Stanwell Corporation Limited in Australia.

As of March 3, 2020, 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 2020 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. See "*Directors and Officers*". Brookfield is also entitled to receive certain funding fees, management fees and interest and dividends on its \$750 million investment. 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*".

INDEBTEDNESS OF DIRECTORS, EXECUTIVE OFFICERS AND SENIOR OFFICERS

Since January 1, 2019, 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 TransAlta Corporation 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. Flexon was President and Chief Executive Officer and a director of Dynege Inc., a power generating company that owns and operates a number of power stations in the US, from June 2011 to April 2018 when it was acquired by Vistra Energy Corp. Certain subsidiaries of Dynege filed for bankruptcy in November 2011 under Chapter 11 of the US Bankruptcy Code. Mr. Flexon was also on the Board of Directors of Westmoreland Coal Company. On October 8, 2018, Westmoreland Coal Company filed for bankruptcy under Chapter 11 of the US Bankruptcy Code. Mr. Flexon resigned from the Board of Westmoreland Coal Company effective March 15, 2019.

Personal Bankruptcies

No director, executive officer or controlling security holder of TransAlta Corporation 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 TransAlta Corporation 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 Corporation believes that the following are material contracts, the particulars of which are disclosed elsewhere in this AIF, to which the Corporation or its subsidiaries are a party:

- Investment Agreement - See "*Capital and Loan Structure - Investment Agreement and E&O Agreement*".
- E&O Agreement - See "*Capital and Loan Structure - Investment Agreement and E&O Agreement*".
- Registration Rights Agreement - See "*Capital Structure - Registration Rights Agreement*".
- Off-Coal Agreement - See "*Business of TransAlta - Canadian Coal Business Segment - Off-Coal Agreement*".

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 which 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 35 of our audited consolidated financial statements for the year ended December 31, 2019, which financial statements are incorporated by reference herein. See "*Documents Incorporated by Reference*".

FMG Disputes

The Corporation is currently engaged in two disputes with FMG. The first dispute arose as a result of FMG's attempted termination of the South Hedland PPA on the basis that the conditions to establishing commercial operation under the South Hedland PPA had not been met. TransAlta's view is that all conditions to establishing commercial operation under the terms of the South Hedland PPA had been satisfied in full. TransAlta initiated legal action against FMG, seeking payment of amounts invoiced and not paid under the South Hedland PPA, as well as a declaration that the PPA is valid and in force. FMG, on the other hand, seeks a declaration that the PPA was lawfully terminated. This matter is scheduled to proceed to trial beginning June 15, 2020.

The second dispute involves FMG's claims against TransAlta related to the transfer of the Solomon facility to FMG. FMG claims certain amounts related to the condition of the facility while TransAlta claims certain outstanding costs that should be reimbursed. A trial date for this matter has not yet been scheduled but it will likely not occur until 2021.

Mangrove

On April 23, 2019, Mangrove commenced an action in the Ontario Superior Court of Justice, naming TransAlta Corporation, the incumbent members of the Board of Directors of TransAlta Corporation on such date, and Brookfield BRP Holdings (Canada), as defendants. Mangrove is seeking to set aside the 2019 Brookfield transaction. TransAlta believes the claim is wholly lacking in merit and is taking all steps to defend against the allegations. This matter is scheduled to proceed to trial beginning September 14, 2020.

Line Loss Ruling

The Corporation 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 and issue a single invoice charging or crediting market participants for the difference in losses charges. A more recent decision by the AUC determined the methodology to be used retroactively, which made it possible for the Corporation to estimate the total retroactive potential exposure faced by the Corporation for its non-PPA power generation. The single invoice for the historical adjustments was to be issued in April 2021, with cash settlement expected in June 2021. The current total estimate of exposure based on known data is \$12 million. However, the AESO recently requested the AUC approve a pay-as-you-go settlement instead of issuing a single invoice. This form of settlement would permit the AESO to issue an invoice for each historical year as the line loss factors are recalculated, resulting in invoices being issued as early as April 2020 for settlement in June 2020, a year earlier than anticipated. The Corporation is challenging this request.

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 United States is Computershare Trust Company at its principal office in Jersey City, New Jersey.

INTERESTS OF EXPERTS

The Corporation'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 within the meaning of the Chartered Professional Accountants of Alberta Rules of Professional Conduct.

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 December 31, 2019, and in the related Annual MD&A, each of which is incorporated by reference in this AIF. See "*Documents Incorporated by Reference*".

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 Canadian Securities Regulators, 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 comprised of a minimum of three independent directors. The AFRC is currently comprised of four independent members: Beverlee F. Park (Chair), Robert C. Flexon, Alan J. Fohrer, and Bryan D. Pinney.

All members of the committee are financially literate pursuant to both Canadian and US securities requirements and Ms. Park, Mr. Flexon and Mr. Pinney have each been determined by the Board to be an "audit committee financial expert", within the meaning of Section 407 of the United States *Sarbanes Oxley Act of 2002* ("Sarbanes Oxley Act").

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 Corporation'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 Corporation.

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 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 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 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 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 Corporation'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 Corporation'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
Robert C. Flexon	Mr. Flexon is the former President and Chief Executive Officer of Dynegy Inc. Prior to Dynegy, Mr. Flexon also served as Chief Financial Officer of UGI Corporation and also NRG Energy. Mr. Flexon has also held key finance and accounting positions with Hercules, Inc. and Atlantic Richfield Company. He holds a Bachelor of Science degree in Accounting from Villanova University.
Alan J. Fohrer	Prior to his retirement in December 2010, Mr. Fohrer was Chairman and CEO of SCE, 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 SCE. Mr. Fohrer also serves on the audit committee of PNM Resources Inc., a public company.
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 seventeen 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 (Montreal, QB), a Master of Business Administration from the Simon Fraser University Executive program and is a Chartered Accountant. She is also a Fellow of the Chartered Professional Accountants of British Columbia since 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 October 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 and is a member of the Human Resources & Compensation Committee and the Operations Committee. He served as Member of Deloitte's Board of Directors. He has been the Chair of the Board of Governors and Member of the Board of Governors of Mount Royal University from September 2014 and May 2009 respectively and has previously served on a number of nonprofit 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 December 31, 2019 are:

Governance, Safety and Sustainability Committee

Chair: John P. Dielwart

Rona H. Ambrose

Yakout Mansour

Georgia R. Nelson

Human Resources Committee

Chair: Georgia R. Nelson

Rona H. Ambrose

Alan J. Fohrer

Beverlee F. Park

Bryan D. Pinney

Investment Performance Committee

Chair: Robert Flexon

John P. Dielwart

Harry Goldgut

Richard Legault

Yakout Mansour

The 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.

For the years ended December 31, 2019 and December 31, 2018, Ernst & Young LLP and its affiliates billed \$4,171,813 and \$4,174,070, respectively, as detailed below:

Ernst & Young LLP		
Year Ended December 31	2019	2018
Audit Fees ⁽¹⁾	\$ 2,475,985	\$ 2,652,152
Audit-related fees ⁽¹⁾⁽²⁾	1,356,412	1,407,163
Tax fees	339,415	104,255
All other fees	—	10,500
Total	\$ 4,171,813	\$ 4,174,070

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

(2) Included in the audit-related fees are \$905,580 (2018 - \$891,147) of fees billed to TransAlta Renewables.

No other audit firms provided audit services in 2019 or 2018.

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 under "Audit Fees". Audit-Related fees include statutory audits, pension audits and other compliance audits. In 2019, 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 Corporation'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 (the "Committee") of the Board of Directors (the "Board") of TransAlta Corporation (the "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 U.S. 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 United States Sarbanes-Oxley Act of 2002 (the "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 (the "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 fulfill 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.

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 U.S. 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 Management's 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 - Cyber Security*
- (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 cyber security 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 received by the Corporation regarding accounting, internal and disclosure controls or auditing matters and the confidential, anonymous submission by employees, contractors, shareholders and other stakeholders of concerns regarding accounting, auditing, ethical or legal violations;
 - (c) Review all incidents, complaints or information reported through the Ethics Help Line and/or Management;
 - (d) Initiate investigations of complaints or allegations as necessary, report to the Board thereon and ensure that appropriate action is taken as necessary to address the matter;
 - (e) 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
 - (f) 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 U.S. 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.

"**AEMO**" – Australian Energy Market 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 go to www.balancingpool.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 MW, 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.

"**eERP**" – ecoEnergy for Renewable Power program, a program established by the federal Government of Canada.

"**ESG**" – Environmental, Social and Governance

"**FNTP**" – Full Notice To Proceed. Written notice given to the contractor fully authorizing them to proceed with the work.

"**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 MW of power over a period of one hour.

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

"**LNTP**" – Limited Notice To Proceed. Written notice given to the contractor authorizing them to proceed with the work in a limited manner in accordance with the notice.

"**LTC**" – Long term contract.

"**MMcf/d**" – Million cubic feet of gas per day – A measure of natural gas.

"**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.

"**NO_x**" – Nitrogen Oxide.

"**OBPS**" – Output Based Pricing Standard.

"**OEFC**" – Ontario Electricity Financial Corporation.

"**Off-Coal Agreement**" – Off-Coal Agreement dated November 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.

"**SO₂**" – Sulphur Dioxide.

"**Supercritical Combustion**" – The most advanced coal-combustion technology in Canada employing a supercritical boiler, high-efficiency multi-stage turbine, flue gas desulphurization unit (scrubber), bag house, and low nitrogen oxide burners.

"**TA Cogen**" – TransAlta Cogeneration LP.

"**tCO₂e/GWh**" – Tonnes of carbon dioxide equivalent per gigawatt hour.

"**TSX**" – Toronto Stock Exchange.

"**Uprate**" – To increase the rated electrical capability of a power generating facility or unit.