

Green Bond Framework

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Introduction

TransAlta is a Canadian corporation and one of Canada's largest publicly traded power generators with over 110 years of operating experience. We own, operate and manage a highly contracted and geographically diversified portfolio of assets utilizing a broad range of fuels that includes water, wind, solar, natural gas and thermal coal. Our strategic focus is to invest in clean energy solutions that meet the needs of our industrial customers and communities.

Approach to Sustainability

Environmental, social and governance ("ESG") is more than simply a business strategy at TransAlta, it's a competitive advantage. Sustainability, or ESG, is one of our core values: it is part of our corporate culture and is a top priority. We strive to integrate sustainability into governance, decision-making, risk management and our day-to-day to business processes, while balancing growth considerations and the economy. The outcome of our sustainability focus is continuous improvement on key ESG issues and ensuring our economic value creation is balanced with a value proposition for the environment and for people.

The highest level of climate change oversight is at the Board level, with specific oversight of certain aspects of TransAlta's response to climate change delegated to our Governance, Safety, and Sustainability Committee ("GSSC"). TransAlta's GSSC assists the Board in fulfilling its oversight responsibilities with respect to TransAlta's monitoring of environmental regulations, public policy, changes and the development of strategies, policies and practices for the environment.

Our key strategic sustainability, or ESG, pillars build on our corporate strategy and weave through our business. Some of these focus areas are already part of our corporate culture and our track record illustrates our commitment to sustainability. In other areas where we have set new goals in recent years, we believe the focus will only strengthen our corporate strategy and support value creation into the future. Our sustainability pillars include:

1. Clean, Reliable and Sustainable Electricity Production
2. Safe, Healthy, Diverse and Engaged Workplace
3. Positive Indigenous, Stakeholder and Customer Relationships
4. Progressive Environmental Stewardship
5. Technology and Innovation

TransAlta recognizes the challenge climate change presents to society and our business, today and into the future. We have been at the forefront of open and transparent dialogue regarding climate change since the early 1990s when we supported the development of Canada's Climate Change Voluntary Challenge and Registry Program. Since 2005, we have made tremendous progress in reducing our emissions. We have delivered over 29 million tonnes of annual greenhouse gas reductions, representing approximately 9 to 10 per cent

of Canada’s Paris Agreement goal of reducing between 40 to 45 per cent from 2005 levels by 2030.

TransAlta is currently in a multi-year transition to convert or retire all of our thermal coal units completely by the end of 2025. In 2021, we completed the transition in Canada and our coal boiler facilities are now running solely on gas. Our remaining coal-fired facility in the United States is committed to be retired on December 31, 2025 under the TransAlta Energy Transition Bill.

TransAlta’s renewable energy commitment began more than one hundred years ago when we built the first hydro assets in Alberta, which still operate today. In 2002, we acquired our first wind farm, in 2015, our first solar farm, and in 2020, our first battery storage facility. Today we operate over 50 renewable facilities across Canada, the United States and Australia.

Accelerated Clean Electricity Growth: The Plan

In September, TransAlta announced new targets and goals in the *Clean Electricity Growth Plan*. Our enhanced focus on renewable generation and storage solutions for customers is largely driven by the need to decarbonize our company and our customers’ businesses and the increase of demand for renewable generation sources in our operating jurisdictions and beyond.



Beyond 2030: Game-Changing Technologies

As we look beyond 2030 and our goal of carbon neutrality, we are exploring a variety of emerging technologies to meet our emissions-reduction aspirations. We intend to be a thought leader in the renewables space, bringing customized solutions that serve our company, our customers, and the communities we serve.

► See pages **M9 to M11** for details on our Accelerated Clean Electricity Growth Plan.



Validation and support of our ESG strategy is provided through our memberships and participation with key sustainability organizations and working groups such as the Canadian Business for Social Responsibility (CBSR) and the Canadian Electricity Association Sustainability Steering Committee.

Rationale for Issuance

TransAlta recognizes the need to expand its role as a leading provider of renewable electricity generation and emissions-reduction solutions for our customers. Establishing a Green Bond Framework (the “Framework”), and future Green Bond issuances, will enable TransAlta to further expand our commitment to accelerate the deployment of renewable energy and other environmentally beneficial projects.

Green Bond Framework

TransAlta's Green Bond Framework has been developed in line with the Green Bond Principles 2021¹ ("GBP") published by the International Capital Market Association ("ICMA"). The Framework is intended to provide transparency in our Green Bond issuance and reporting processes. The Framework is based on the four core components of the GBP, being:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

The Framework also describes the manner in which TransAlta Green Bonds support and contribute towards meeting the United Nations Sustainable Development Goals² ("SDG"). Under the Framework, TransAlta may issue Green Bonds in various formats, according to the prevailing terms described in the documentation.

1. Use of Proceeds

An amount equivalent to the net proceeds from the issuance of Green Bonds will be used to finance or refinance, in part or in full, Eligible Projects (as defined below) providing tangible environmental benefits. TransAlta will follow the process described in the Framework along with its professional judgement, discretion and sustainability expertise when identifying the Eligible Projects.

In the case of refinancing existing Eligible Projects, investments and expenditures that have been made within the 36-month period preceding the date of issuance of a Green Bond shall be considered for inclusion as Eligible Projects. TransAlta will fully allocate the net proceeds of a Green Bond within 24-months of issuance.

¹ International Capital Markets Association, "The Green Bond Principles (GBP) 2021" published on June 14, 2018 and updated as of June 2021

<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

² The SDGs were set up in 2015 by the United Nations General Assembly and are intended to be achieved by the year 2030 <https://sdgs.un.org/goals>

Eligible Projects

Project Category	Eligible Criteria	Alignment with UN SDG
Renewable Energy	<ul style="list-style-type: none"> • Proceeds may be allocated to the construction, development, operation, acquisition, maintenance, connection, transmission and distribution of the following renewable energy generation sources: <ul style="list-style-type: none"> ○ Solar or solar-plus-storage ○ Wind or wind-plus-storage ○ Refurbishment, operation or maintenance of existing hydroelectric facilities provided the size of the dam or reservoir is not increased³ ○ Run of river hydroelectric power³ or hydro-plus-storage ○ Green hydrogen (<36.4g CO₂e/MJ) 	7, 13
Energy Efficiency	<ul style="list-style-type: none"> • Proceeds may be allocated to products and systems that reduce energy consumption or mitigate emissions, including: <ul style="list-style-type: none"> ○ Development of large-scale, long duration energy storage projects 	7, 11, 13

2. Process for Project Evaluation and Selection

TransAlta has established a Green Bond Committee (the “Committee”) at the Management level with responsibility for governing the selection and monitoring of the Eligible Projects. The Committee will be chaired by the Treasurer and include senior members of the following teams representing TransAlta: Finance, Legal and Sustainability.

The Committee will be principally responsible for 1) evaluating and selecting Eligible Projects, 2) annually reviewing the list of previously allocated Eligible Projects against the eligibility criteria and 3) reviewing and approving updates to this Framework.

When evaluating Eligible Projects, the Committee will assess whether the Eligible Projects meet the eligibility criteria laid out in the Use of Proceeds section of this Framework. Projects must also comply with applicable laws and regulations and TransAlta’s policies and guidelines, such as our Total Safety Management Policy.

³ Hydropower projects (>25MW) in operation before 2020 must have a power density of over 5 W/m² or operate with lifecycle emissions below a threshold of 100g CO₂ e/kWh; hydropower projects in operation in 2020 or after must have a power density of over 10 W/m² or operate with lifecycle emissions below a threshold of 50g CO₂e/kWh. New facilities must undergo additional assessments of environmental and social risks based on recognized best practice guidelines and applicable national/provincial laws, and incorporate measures to address risks.

Additionally, the Committee will, if a project no longer meets the eligibility criteria set forth in this Framework, review and approve removing it and replacing it with another Eligible Project.

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

3. Management of Proceeds

TransAlta's Treasury team will manage the allocation of an amount equivalent to the net proceeds of its Green Bond to Eligible Projects. Net proceeds will be recorded separately in TransAlta's records in order to clearly track the use of and allocation of funds for Eligible Projects. TransAlta will strive to achieve a level of allocation to the Eligible Project portfolio that matches or exceeds the balance of net proceeds of its outstanding Green Bonds within 24 months of issuance of each Green Bond.

Pending full allocation of an amount equal to the net proceeds of outstanding Green Bonds, the proceeds will be held in temporary investments such as cash, cash equivalents and/or other liquid marketable investments in line with TransAlta's financial policies or used to pay outstanding indebtedness.

Payment of principal and interest on any Green Bond will not be directly linked to the performance of any Eligible Asset.

If any Eligible Projects are removed from the Eligible Project Portfolio, TransAlta will strive to substitute those projects with replacement Eligible Projects, as soon as possible and in any case within 24 months.

4. Reporting

For each Green Bond issued, TransAlta commits to publish an allocation and impact report annually within one year of issuance until full allocation of the proceeds and in the event of any material changes until the relevant maturity date. TransAlta's Green Bond reporting will be made publicly available on our website.

Allocation Reporting

TransAlta will provide information on the allocation of the net proceeds of its Green Bonds on its website. The information will contain at least the following details:

- a) Net proceeds of outstanding Green Bonds
- b) The proportion of spending by Eligible Project category as defined in the Use of Proceeds section of this Framework



- c) Subject to confidentiality considerations, a list of the Eligible Projects financed through TransAlta’s Green Bonds, including a description of the projects and allocated amounts
- d) The remaining balance of unallocated proceeds, if any

Impact Reporting

TransAlta will report on relevant environmental impact metrics, where feasible and on a proportion-funded basis, and disclose measurement methodology. Examples of impact metrics that may be reported are found in the below table.

Eligible Project Category	Potential Quantitative Impact Metrics
Renewable Energy	<ul style="list-style-type: none">• Total installed capacity (MW)• GHG emissions avoided per year (tCO₂e)
Energy Efficiency	<ul style="list-style-type: none">• Total installed capacity of energy storage (MWh)• Energy use reduction (GJ)• GHG emissions reduced/avoided (tCO₂e)

5. External Review

TransAlta’s Green Bond Framework is supported by a second-party opinion and a post-issuance external verification on reporting to be conducted as follows:

SECOND-PARTY OPINION

TransAlta has retained Sustainalytics to provide a Second-Party Opinion (“SPO”) on its Green Bond Framework, to confirm alignment with the GBP 2021. The SPO is available at [Sustainalytics website](#) and on [TransAlta’s website](#).

Disclaimer

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Certain statements made in this Green Bond Framework are forward-looking statements, including statements with respect to TransAlta's sustainability and corporate strategy; future goals; commitment to convert or retire its thermal coal units completely by the end of 2025; commitment to retiring its remaining coal-fired facility in the United States on December 31, 2025; TransAlta's emissions-reduction aspirations including levels of GHG reduction and carbon neutrality by 2050; the benefits of the Framework and future Green Bond issuances; the issuance of Green Bonds and the terms therein; the timing and allocation of the net proceeds of a Green Bond; Eligible Projects and the expected benefits thereof; TransAlta's reporting on the allocation of net proceeds of its Green Bonds on its website and the information contained therein; and TransAlta's commitment to report on relevant environmental impact metrics. All such forward-looking statements are made pursuant to the "safe harbour" provisions of applicable securities laws in Canada and the U.S. Private Securities Litigation Reform Act of 1995.

By their nature, forward-looking statements require TransAlta to make assumptions and predictions and are subject to inherent risks and uncertainties. There is significant risk that the forward-looking statements will not prove to be accurate. These forward-looking statements are based on several assumptions, both general and specific, which give rise to the possibility that actual results or events could differ materially from expectations expressed in or implied by such forward-looking statements. These statements are not guarantees of future performance or events. Readers are cautioned not to place undue reliance on forward-looking statements, since a number of factors could cause actual future performance and events to differ materially from those described in the forward-looking statements. Factors including market, political and economic conditions, changes in government policy, changes in laws, rules or regulations, the lack of available Eligible Projects being initiated, failure to complete or implement projects and other challenges,



could limit the ability to achieve some or all of the expected benefits of these initiatives, including the funding and completion of Eligible Projects.

Important risk factors that could cause actual results or events to differ materially from those expressed in, or implied by, forward-looking statements contained herein include the risk factors set forth in TransAlta's most recent management's discussion and analysis ("MD&A"), as may be updated by subsequent quarterly and annual MD&As, TransAlta's annual information form and elsewhere in TransAlta's public disclosure documents and filings with Canadian securities regulators (on SEDAR at sedar.com). Investors and others should carefully consider these risk factors, as well as other uncertainties and potential events, and the inherent uncertainty of forward-looking statements. The forward-looking statements contained in this document describe TransAlta's expectations as at the date of this document and, accordingly, are subject to change after such date. Except as required by law, TransAlta disclaims any intention or obligations to update or revise any of the forward-looking statements.