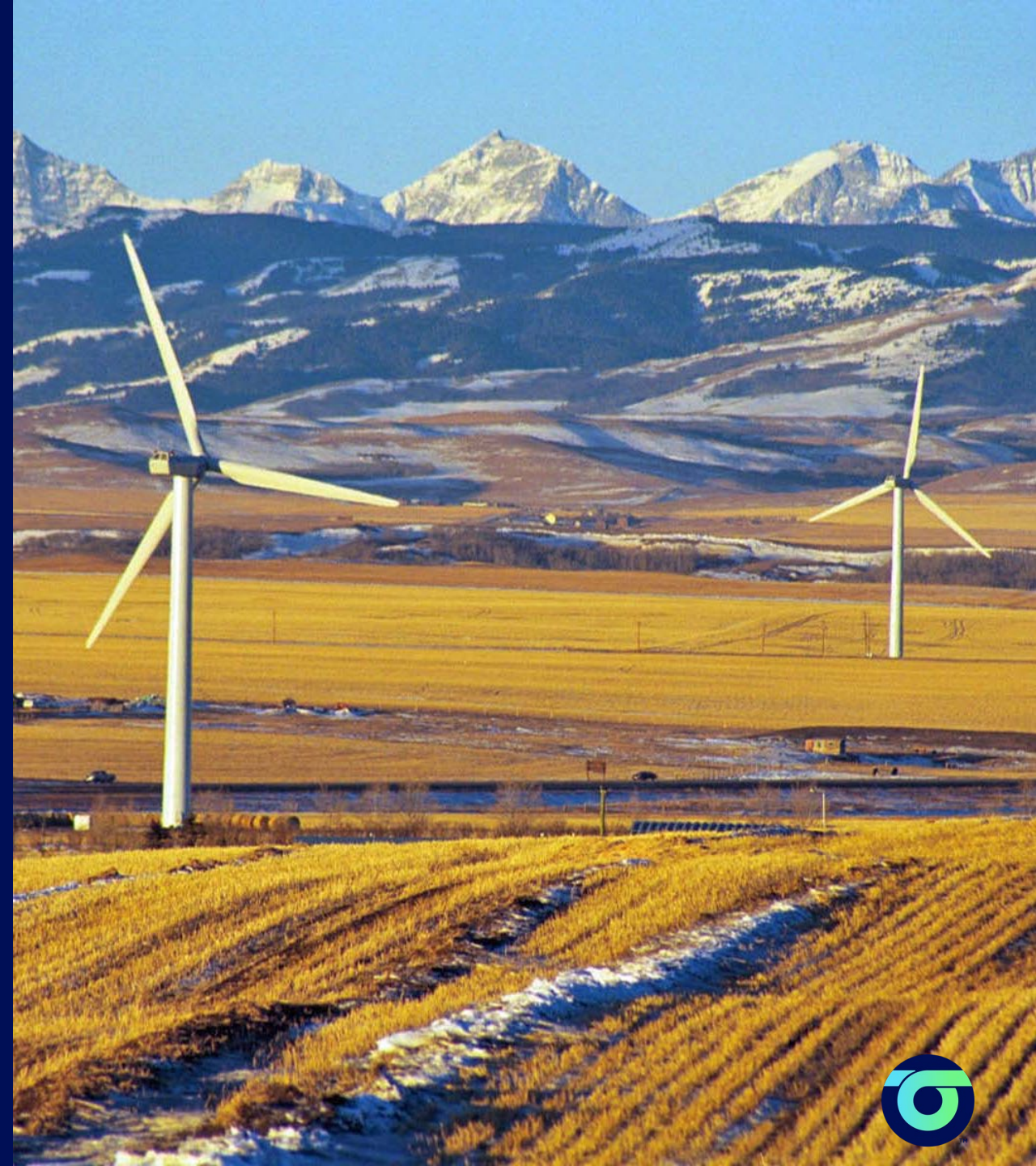


transaltaTM

Q1 2023 Results

May 5, 2023



Disclaimer and Forward-Looking Statements

This presentation 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 the beliefs as well as assumptions of TransAlta Corporation (the "Company", "TransAlta", "we" or "our") 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 or implied by the forward-looking statements.

In particular, this presentation contains forward-looking statements including, but not limited to, statements relating to: our share buybacks; ability to deliver the remainder of the Clean Electricity Growth Plan; the Company's projects under construction, including the timing of commercial operations, expected annual EBITDA and the capital costs of the Horizon Hill wind project ("Horizon Hill Wind project"), the White Rock wind projects ("White Rock Wind"), Northern Goldfields solar project, Garden Plain wind project, and the Mount Keith 132kV transmission expansion; our ability to deliver 70% of the Company's EBITDA from renewable and storage assets by the end of 2025; investment decisions related to the Company's advanced stage projects; mine reclamation; the Tent Mountain pumped hydro project, including any progress on development or construction and the ability to achieve 15 hours of storage; maintaining a leadership position in climate change and achieving net-zero by 2045; the execution of the Company's early and advanced stage development pipeline in the United States, Canada and Australia, including the size, cost, expected timing and EBITDA from the projects; expanding the Company's development pipeline; the ability to realize future growth opportunities in Australia, including with our customer BHP Billiton Nickel West; the 2023 Federal Budget and the Inflation Reduction Act supporting our growth in Canada and the US; costs for new projects; the timing and costs of the rehabilitation of the Kent Hills wind facilities; the revised financial outlook for 2023, including adjusted EBITDA, cash available for distribution, and free cash flow per share; the revised financial performance of the Energy Marketing segment; investment decisions related to 500 MW of additional clean energy projects; the new technology roadmap that aligns with the Company's Clean Electricity Growth Plan; ESG targets, including Indigenous cultural awareness training and achieving at least 40 per cent female employees by 2030; and our 2023 priorities, including as it pertains to our strategic initiatives, growth and commercial priorities, safety and reliability, and financial flexibility priorities.

The forward-looking statements contained herein are based on current expectations, estimates, projections and assumptions, having regard to the Company's experience and its perception of historical trends, and includes, but is not limited to, expectations, estimates, projections and assumptions relating to: power prices in Alberta and Mid-Columbia; the availability and cost of labour, services and infrastructure; and the satisfaction by third parties of their obligations, including under our power purchase agreements. 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 presentation include, but are not limited to: fluctuations in market prices, including lower merchant pricing in Alberta, Ontario and Mid-Columbia; reduced labour availability and ability to continue to staff our operations and facilities; disruptions to our supply chains, including our ability to secure necessary equipment; our ability to obtain regulatory and any other third-party approvals on the expected timelines or at all in respect of our growth projects; risks associated with development and construction projects, including as it pertains to increased capital costs, permitting, labour and engineering risks, disputes with contractors and potential delays in the construction or commissioning of such projects; restricted access to capital and increased borrowing costs, including any inability to secure debt, equity or tax equity, as applicable, on reasonable terms or at all; significant fluctuations in the Canadian dollar against the US dollar and Australian dollar; changes in short-term and long-term electricity supply and demand; reductions in production; a higher rate of losses on our accounts receivable; inability to achieve our targets relating to ESG; impairments and/or write-downs of assets; adverse impacts on our information technology systems and our internal control systems, including increased cybersecurity threats; commodity risk management and energy trading risks, including the effectiveness of the Company's risk management tools associated with hedging and trading procedures to protect against significant losses; changes in demand for electricity and capacity and our ability to contract our generation for prices that will provide expected returns and replace contracts as they expire; changes to the legislative, regulatory and political environments in the jurisdictions in which we operate; environmental requirements and changes in, or liabilities under, these requirements; disruptions in the transmission and distribution of electricity; the effects of weather, including man-made or natural disasters and other climate-change related risks; increases in costs; reductions to our generating units' relative efficiency or capacity factors; disruptions in the source of fuels, including natural gas, coal, water, solar or wind resources required to operate our facilities; operational risks, unplanned outages and equipment failure and our ability to carry out or have completed any repairs in a cost-effective or timely manner or at all, including as it applies to the rehabilitation and replacement of turbine foundations of the Kent Hills 1 and 2 wind facilities; general economic risks, including deterioration of equity markets, increasing interest rates or rising inflation; failure to meet financial expectations; general domestic and international economic and political developments; armed hostilities, including the war in Ukraine and associated impacts; the threat of terrorism; adverse diplomatic developments or other similar events that could adversely affect our business; industry risk and competition; structural subordination of securities; counterparty credit risk; public health crisis risks, including any further impacts of COVID-19; changes to our relationship with, or ownership of, TransAlta Renewables; changes in the payment or receipt of future dividends, including from TransAlta Renewables; inadequacy or unavailability of insurance coverage; our provision for income taxes and any risk of reassessment thereof; legal, regulatory and contractual disputes and proceedings involving the Company; reliance on key personnel; and labour relations matters. The foregoing risk factors, among others, are described in further detail under the heading "Risk Factors" in our Annual Information Form and our Management's Discussion and Analysis for the year ended December 31, 2022. Readers are urged to consider these factors carefully in evaluating the forward-looking statements and are cautioned not to place undue reliance on them, which reflect the Company's expectations only as of the date hereof. The forward-looking statements included in this document are made only as of the date hereof and we do not undertake to publicly update these forward-looking statements to reflect new information, future events or otherwise, except as required by applicable laws. In light of these risks, uncertainties and assumptions, the forward-looking statements might occur to a different extent or at a different time than we have described or might not occur at all. We cannot assure that projected results or events will be achieved.

Certain financial information contained in this presentation, including EBITDA or Adjusted EBITDA, Free Cash Flow ("FCF") and cash available for distribution ("CAFD") may not be standard measures defined under International Financial Reporting Standards ("IFRS") and may not be comparable to similar measures presented by other entities. These measures should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. Please refer to the "Additional IFRS Measures and Non-IFRS Measures" and "Reconciliation of Non-IFRS Measures" section of the Management Discussion & Analysis for the nine months and year ended December 31, 2022 for further discussion of these items, including, where applicable, reconciliations to measures calculated in accordance with IFRS. The purpose of the financial outlooks contained herein are to give the reader information about management's current expectations and plans and readers are cautioned that such information may not be appropriate for other purposes and is given as of the date of this presentation. The Company is not making any offer or invitation of any kind by communication of this document to the recipient and under no circumstances is it to be construed as a prospectus or an advertisement.

All amounts referenced in this presentation are in Canadian currency unless otherwise specified.



John Kousinioris

President and Chief Executive Officer

Q1 2023 Achievements

Q1 2023 Results and Financial Position



Adjusted EBITDA¹ of **\$503 million**

FCF¹ of **\$263 million** or **\$0.98** per share

Operational availability of **92%**

Access to **\$2.6 billion** in liquidity, ~ **\$1.2 billion** in cash

Upward revision to guidance

Growth and Customer Solutions



374 MW of advanced stage development projects

Added **286 MW** to renewables development pipeline across Canada and the US in Q1

Acquired interest in **Tent Mountain pumped hydro energy storage** project

Strategic Initiatives



Returned **\$36 million** to shareholders through NCIB

Entered into **automatic share purchase plan**

Advanced Clean Electricity Growth Plan

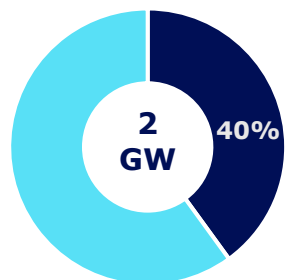
Continued **rehabilitation** of Kent Hills wind facilities



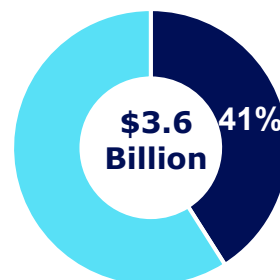
Clean Electricity Growth Plan Execution

	MW	Location	Capital (\$millions)	PPA Term	Customer	EBITDA (\$millions)	COD
North Carolina Solar	122	North Carolina	US\$99	11 years	Duke	US\$9	In service
Garden Plain Wind	130	Hanna, AB	\$190 - \$200	17 years ¹	Pembina and investment-grade customer	\$14 - \$15	H1 2023
Northern Goldfields Solar	48	Western Australia	AU\$69 - \$73	16 years	BHP	AU\$9 - \$10	H1 2023
White Rock Wind	300	Caddo County, OK	US\$470 - \$490	Long-term	Amazon	US\$48 - \$52	H2 2023
Horizon Hill Wind	200	Logan County, OK	US\$300 - \$315	Long-term	Meta	US\$30 - \$33	H2 2023
Mt Keith Transmission Expansion	NA	Western Australia	AU\$50 - \$53	15 years	BHP	AU\$6 - \$7	H2 2023

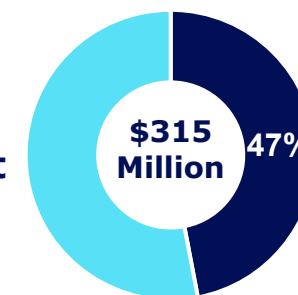
Capacity Target



Capital Target



Incremental EBITDA Target



Projects under construction totaling ~\$1.4 Billion



Advanced-Stage Projects

	MW	Location	Type	Estimated Spend (\$millions)	EBITDA (\$millions)	Target Completion Date
Tempest	100	Warner County, AB	Wind	\$210 – \$230	\$20 – \$23	2025
SCE Capacity Expansion	94	Western Australia	Gas	AU\$180 – AU\$200	AU\$24 – AU\$28	2025
WaterCharger	180	Cochrane, AB	Battery Storage	\$195 – \$215	\$17 – \$20	2024
Australian Transmission Expansion	n/a	Western Australia	Transmission	AU\$70 – AU\$75	AU\$7 – AU\$8	2024

374 MW
Advanced stage projects

~20%
Of Incremental EBITDA Target

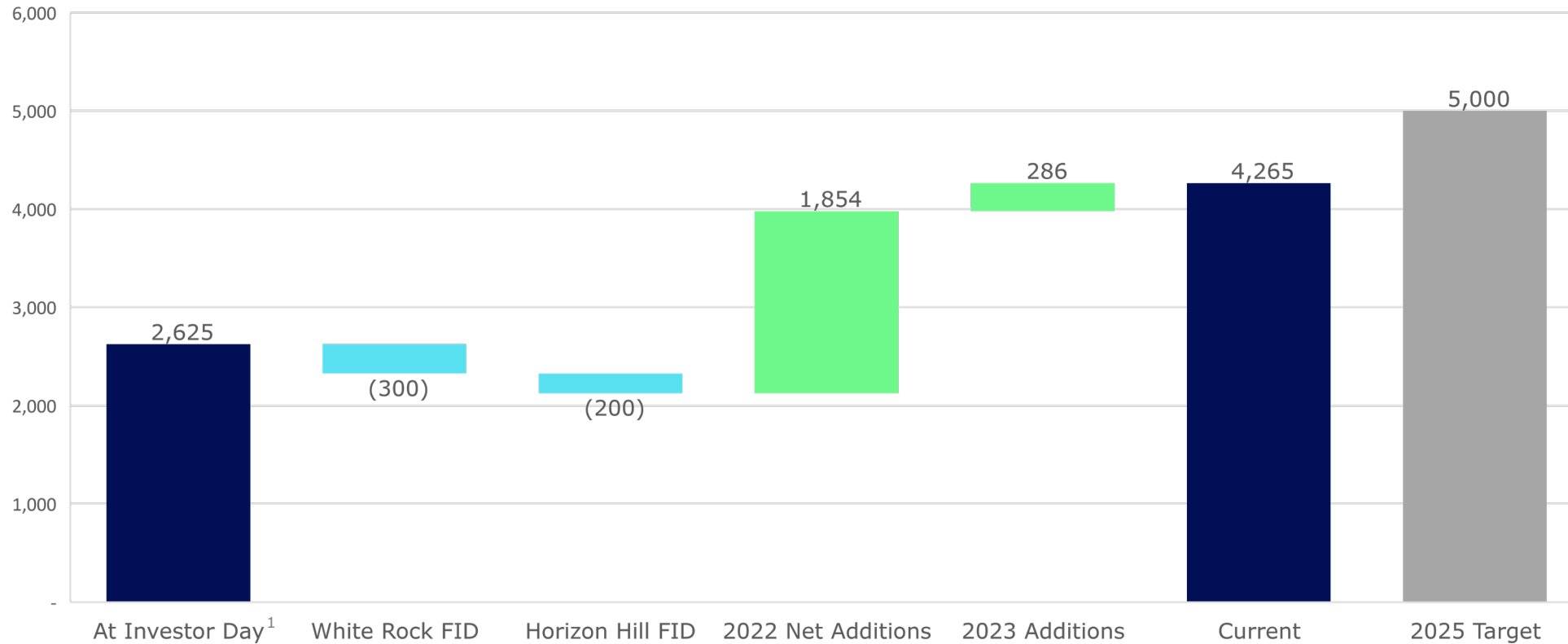
2024-25
Completion Dates

20% of Clean Electricity Growth Plan target is in advanced stage



Development Pipeline

Changes to Development Pipeline (MW)



~4.3 GW

Currently in development in our 3 core geographies

Development pipeline expansion on track to meet 2025 target



2023 Outlook Update

(\$ millions)	Revised Outlook Q1 2023	Previous Outlook as of Q4 2022	Change from Previous Midpoint
Adjusted EBITDA¹	\$1,450 to \$1,550	\$1,200 to \$1,320	+ 19%
FCF¹	\$650 to \$750	\$560 to \$660	+ 15%
Energy Marketing Gross Margin	\$130 to \$150	\$90 to \$110	+ 40%
Market	Power and Gas Prices 2023 Revised Outlook Q1	Power and Gas Prices 2023 Outlook as of Q4	Change from Previous Midpoint
Alberta Spot (\$/MWh)	\$125 to \$145	\$105 to \$135	+ 13%
Mid-C Spot (US\$/MWh)	US\$90 to US\$100	US\$75 to US\$85	+ 19%
AECO Gas Price (\$/GJ)	\$2.50	\$4.60	- 46%

Outstanding Q1 performance supports upward revision to guidance





Todd Stack

**Executive Vice President, Finance and
Chief Financial Officer**

President, TransAlta Renewables Inc.

Alberta Electricity Portfolio

Q1 2023 Realized Prices

182%

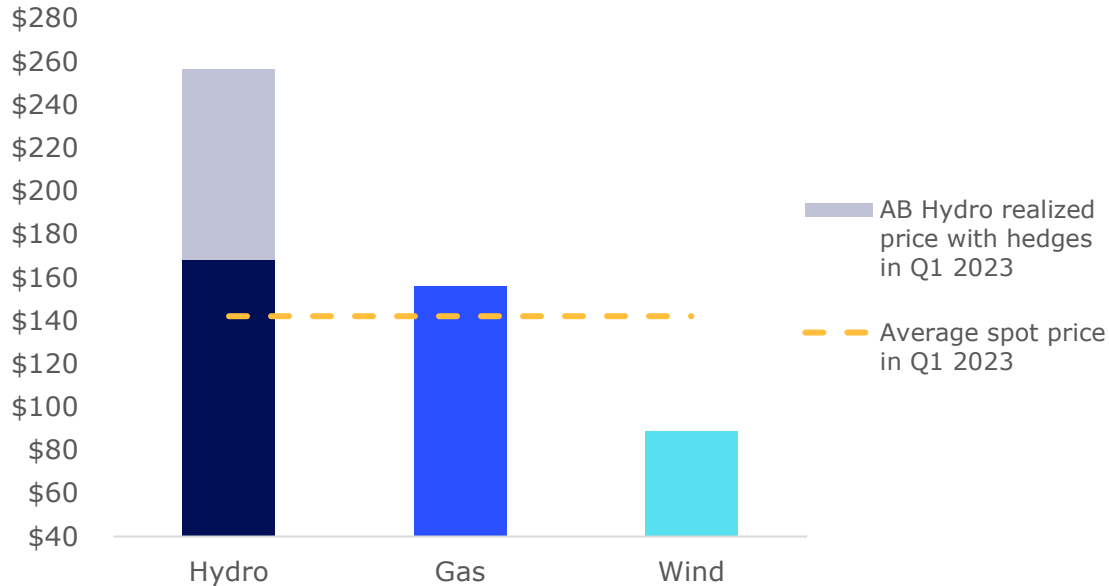
AB Hydro average realized energy price to spot in Q1 2023

118%

AB Hydro average realized merchant energy price to spot in Q1 2023

110%

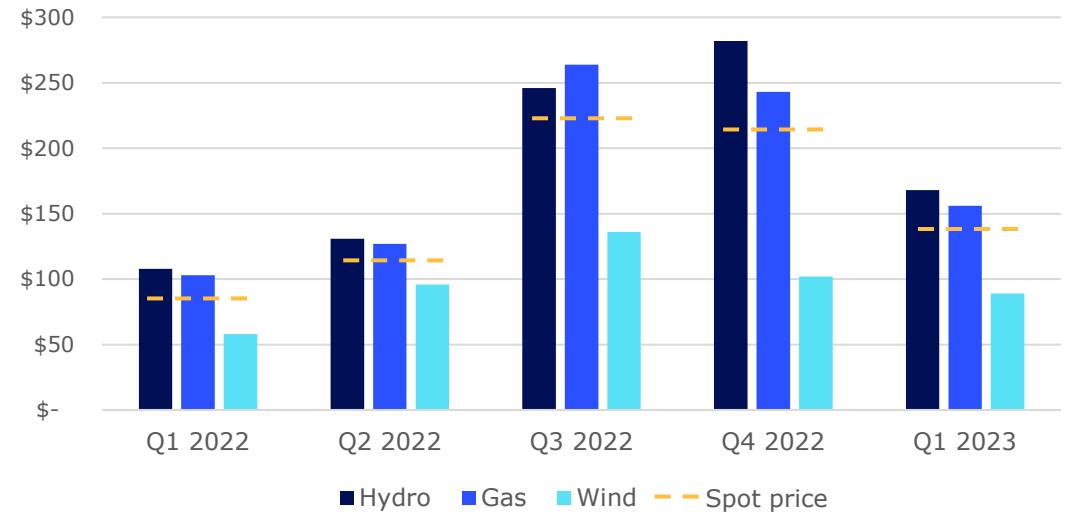
Gas average realized merchant energy price to spot in Q1 2023¹



2023 Balance of Year Hedging

	Volume	Average Hedge Price
Energy	4,768 GWh	~\$86 / MWh
Natural Gas	94% ²	\$2.30 / GJ

Quarterly Realized Merchant Prices



Realizing the value of our diversified fleet in Alberta



¹ Excludes gains and losses from hedging positions.

² 47 million GJ representing 94% of 2023 balance of year hedged energy production.

TransAlta Segmented Results

3 Months Ended March 31, 2023

(\$millions)

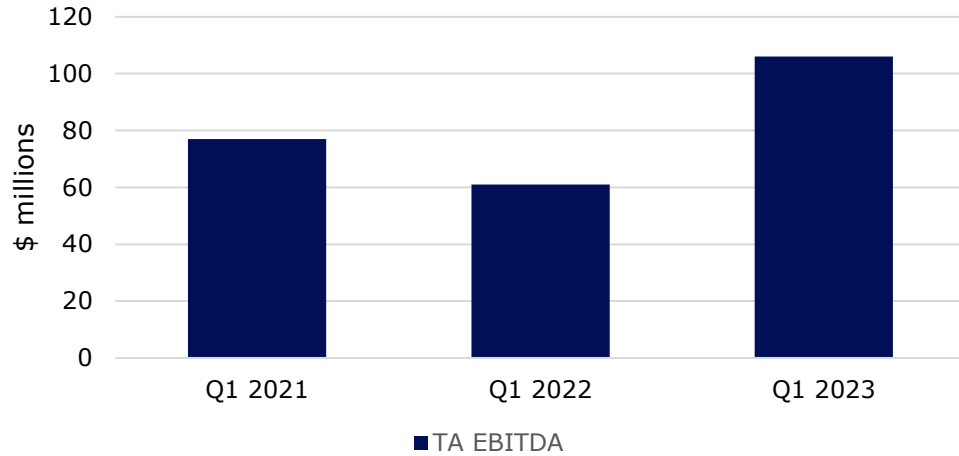
Q1 2023	Adjusted EBITDA ¹	Q1 2022
106	Hydro	61
88	Wind and Solar	89
240	Gas	105
54	Energy Transition	5
39	Energy Marketing	17
(24)	Corporate	(18)
503	Total	259

Strong performance across entire company

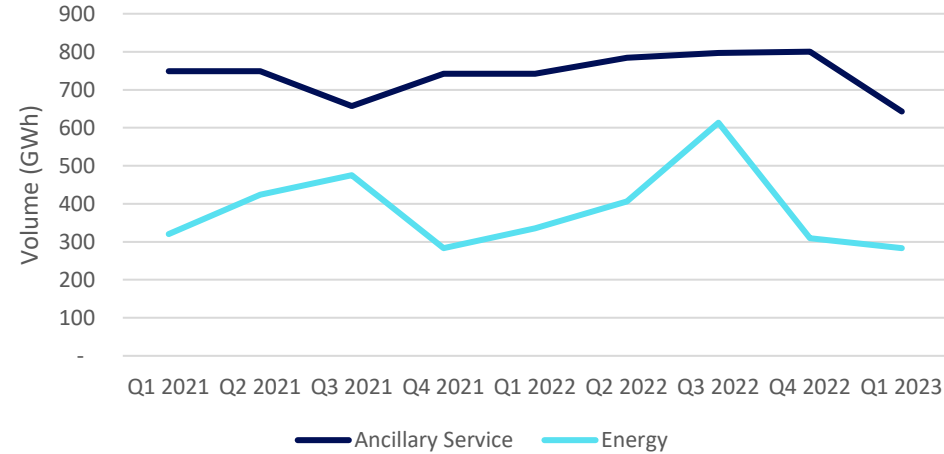


Alberta Hydro Exceeds Expectations

Hydro Adjusted EBITDA¹ (\$millions)

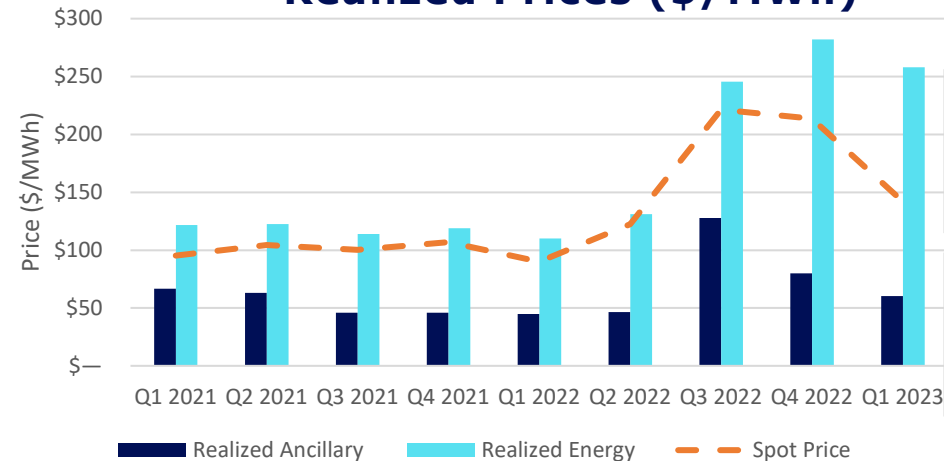


Hydro Volumes (GWh)



Hydro delivers exceptional value for TransAlta shareholders

Realized Prices (\$/MWh)



49%

Average Realized Ancillary Price to Spot

118%

Average Realized Energy Price to Spot

¹ Adjusted EBITDA and FCF are non-IFRS measures. Certain additional disclosure for these specified financial measures have been incorporated by reference and can be found on pages M26-M31 in the MD&A for the first quarter of 2023, are available on SEDAR at www.sedar.com, and on www.transalta.com under the Investors section.



TransAlta Renewables Q1 2023 Highlights

3 Months Ended March 31, 2023

Q1 2023		Q1 2022
128	Adjusted EBITDA ¹	139
71	CAFD ¹	90
0.27	CAFD per share ¹	0.34
0.23	Dividends per share	0.23

¹ Adjusted EBITDA, CAFD, and CAFD per share are non-IFRS measures. Certain additional disclosure for these specified financial measures have been incorporated by reference and can be found on pages M10-M14 in the MD&A for the first quarter of 2023, available on SEDAR at www.sedar.com and on www.transaltarenewables.com under the Investors section.



2023 Priorities

Safety, Reliability and Availability



Achieve strong safety performance

Achieve strong fleet availability of 91.8%

Growth and Commercial



Secure 500 MW of growth

Complete Garden Plain, Northern Goldfields Solar, White Rock, Horizon Hill and Mount Keith

Expand pipeline by adding 1,500 MW

Secure long-term contracts for Alberta merchant fleet

Strategic Initiatives



Accelerate CO2 emissions reduction to 75% from 2015 levels by 2026

Progress towards net-zero by 2045

Progress ESG efforts including mine reclamation

Competitive



Drive operational efficiencies, performance and results as "One TransAlta"

Financial Flexibility



Deliver Adjusted EBITDA of \$1,450 to \$1,550 million

Deliver FCF of \$650 to \$750 million

Complete rehabilitation and return to service of Kent Hills

Deliver permanent financing for growth projects

Health and Values



Complete Indigenous Cultural Awareness Training across the US and Australia

Continue progress towards 40% gender diversity target



Our Value Proposition



Diversified and resilient fleet



Clean electricity leader with ESG focus

4.3+ GW growth pipeline



Strong financial position



The Transalta logo features the word "transalta" in a lowercase, sans-serif font. The letters "transal" are in a light blue color, and "ta" is in a green color. A small "TM" trademark symbol is positioned to the upper right of the "a".

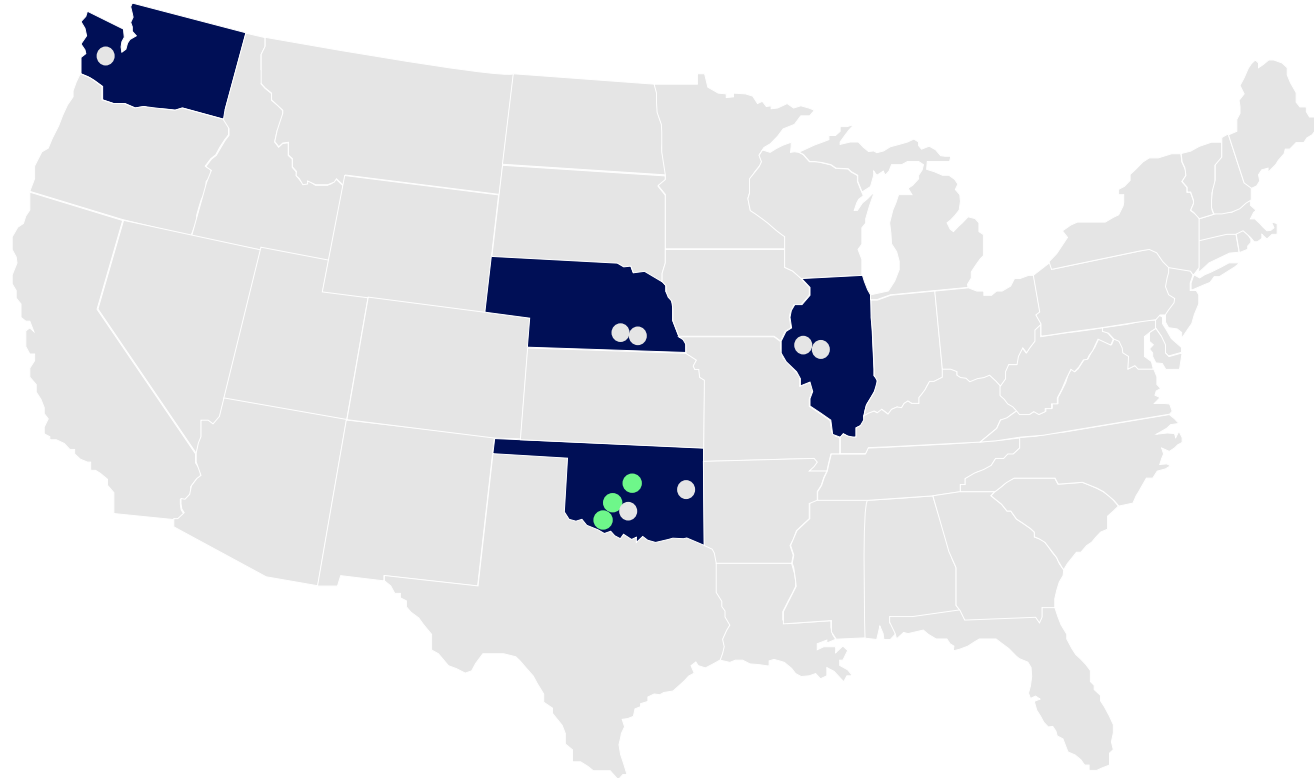
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Questions and Answers

Visit us at: www.transalta.com

Investor_relations@transalta.com

TAC Development Pipeline: United States



Legend

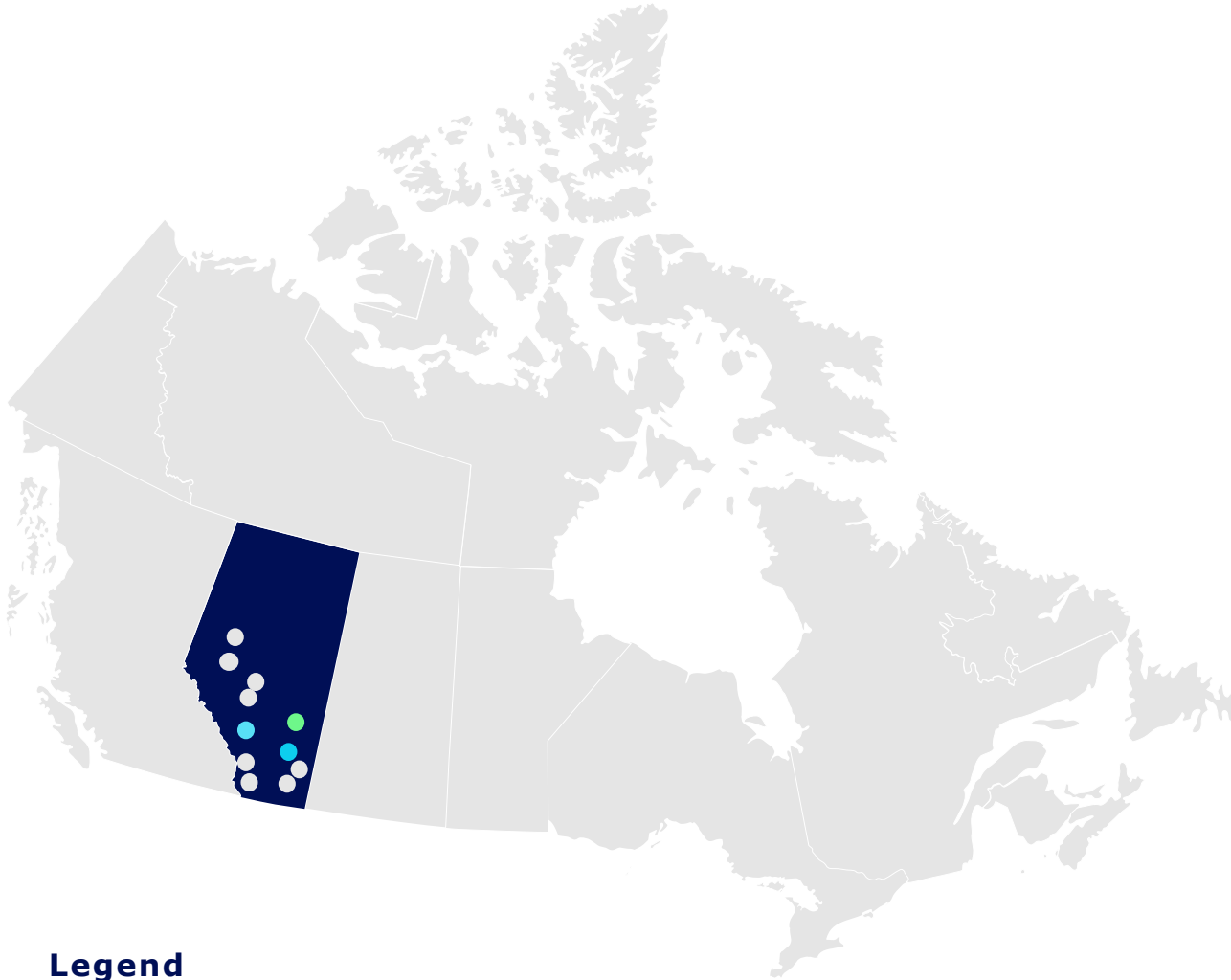
- Early-stage development site
- Under construction

Total All Stages: 2,054 MW – 2,304 MW

Project	MW	Type	Location	Stage	COD Range
White Rock West	100	Wind	OK	●	2023
White Rock East	200	Wind	OK	●	2023
Horizon Hill	200	Wind	OK	●	2023
Prairie Violet	130	Wind	IL		2027
Old Town	185	Wind	IL		2025
Monument Road	152	Wind	NE		2025
Dos Rios	242	Wind	OK		2026
Oklahoma Solar	100	Solar	OK		2026
Milligan 3	126	Wind	NE		2026
Other US Wind and Solar Prospects	369	Wind	Various		2025+
Centralia Site Redevelopment	250 – 500	Various	WA		TBD



TAC Development Pipeline: Canada



Legend

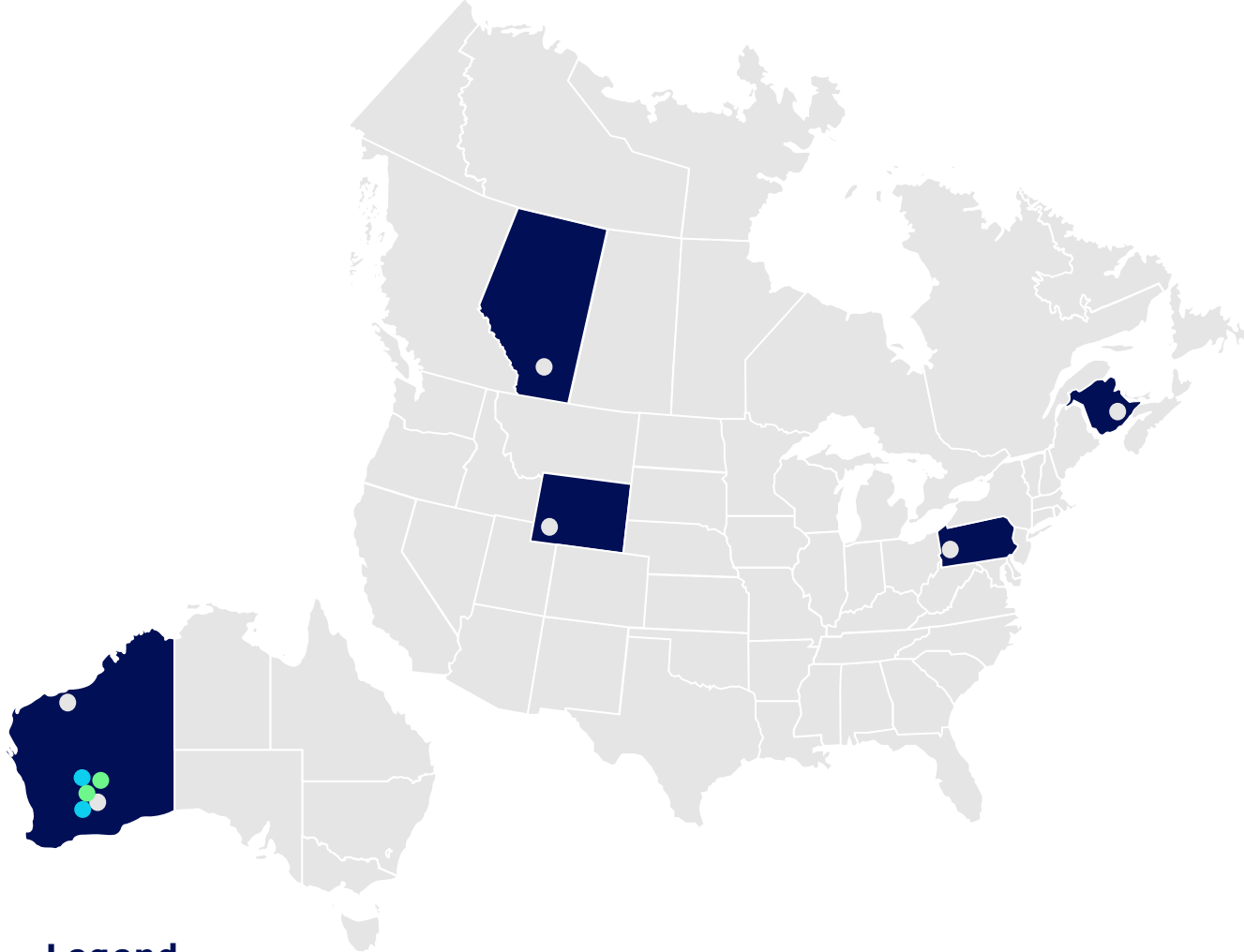
- Advanced-stage development site
- Early-stage development site
- Under construction

Total All Stages: **2,062 MW – 2,912 MW**

Project	MW	Type	Location	Stage	COD Range
Garden Plain	130	Wind	AB	●	2023
Tempest	100	Wind	AB	●	2025
WaterCharger	180	Battery	AB	●	2024
Riplinger	300	Wind	AB	●	2026
Red Rock	100	Wind	AB	●	2028
SunHills Solar	115	Solar	AB	●	2025
McNeil Solar	57	Solar	AB	●	2026
Canadian Wind	370	Wind	Various	●	2027+
Tent Mountain Pumped Storage	160	Hydro	AB	●	2028-2030
Brazeau Pumped Storage	300-900	Hydro	AB	●	2037
Alberta Thermal Redevelopment	250-500	Various	AB	●	TBD



RNW Development Pipeline



Legend

- Advanced-stage development site
- Early-stage development site
- Under construction

Total All Stages: **827 MW**

Project	MW	Type	Location	Stage	COD Range
Canada					
Willow Creek 1	70	Wind	AB	○	2027
Willow Creek 2	70	Wind	AB	○	2027
Canadian Battery	10	Battery	NB	○	2025
United States					
Big Timber	50	Wind	PA	○	2027
Trapper Valley	225	Wind	WY	○	2028
Other US Wind Prospects	40	Wind	Various	○	2025+
Australia					
Northern Goldfields Solar	48	Solar and Battery	WA	●	2023
Mt Keith 132kV Expansion	N/A	Transmission	WA	●	2023
SCE Capacity Expansion	94	Gas	WA	●	2025
Australia Transmission Expansion	N/A	Transmission	WA	●	2024
Australian prospects	170	Wind, Solar, Gas	WA	○	2025+
South Hedland Solar	50	Solar	WA	○	2026

