



transalta™

Investor Presentation

January 2024



Disclaimer and forward-looking statements

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This written and accompanying oral presentation contains "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"). The forward-looking statements are provided for the purpose of presenting information about management's current expectations and plans and readers are cautioned that such statements may not be appropriate for other purposes. TransAlta's actual results could differ materially from those expressed in, or implied by, these forward-looking statements, and accordingly, no assurances can be given that any of the events anticipated by the forward-looking statements will transpire or occur. Forward-looking statements are predictive in nature, depend upon or refer to future events or conditions, or include words such as "expects", "anticipates", "plans", "predicts", "believes", "estimates", "intends", "targets", "projects", "forecasts" or negative versions thereof and other similar expressions or future or conditional verbs such as "may", "will", "should", "would" and "could". These statements may include, without limitation, statements regarding: global trends for decarbonization, including cost of carbon, cost effective technologies for storage, hydrogen, carbon capture, and customer demand; natural gas generation playing a role in maintaining affordability and reliability in each of TransAlta's core markets; anticipated evolution of the Alberta merchant market; TransAlta's ability to maintain and execute its strategy, including meeting customer needs, operational excellence, and increasing shareholder value and delivering stable and predictable cash flows; TransAlta's Company-wide priorities to 2028, including optimizing the Alberta portfolio, the Clean Electricity Growth Plan, maintaining financial strength and capital allocation discipline, defining the next generation of power solutions and leading ESG and market policy; TransAlta's ability to execute its investment focus, including new technology, renewables and storage and reliable generation; the technology cost of renewables and storage continuing to decline; forecasted composition of 2024 earnings before interest, taxes, depreciation and amortization ("EBITDA"); Company's EBITDA attributable to renewable generation reaching 70%; emissions reductions, including reducing emissions (scope 1 and 2) by 75% below 2015 levels by 2026, achieving net zero by 2045, and ending coal generation by 2025; TransAlta's ability to execute its sustainability targets, including 80% of procurement spend to be with suppliers committed to sustainability, 40% company-wide female employment by 2030; 50% female Board representation by 2030; forecasted 2024 EBITDA of \$1.15 Billion to \$1.3 Billion and free cash flow of \$450 million to \$600 million; realizing incremental EBITDA from Kent Hills, White Rock, Northern Goldfields and the Mount Keith transmission projects; the changing energy regulatory landscape, including the draft Clean Electricity Regulations, and the expected impact that regulatory changes will have on the Company's business; expected changes to the Alberta power market; the impacts arising from the significant supply additions in the Alberta market; the swings in generation in Alberta from hour to hour; the Alberta pool price forecasts and expected increase to price volatility; the benefits of the Alberta hydro fleet and the expected revenue from energy sales from our hydro fleet; Alberta's forecasted load growth and supply additions; the Company's increasing diversification strategy by fuel type, including our growth pipeline, and development of projects such as the expected capacity additions, date of investment decisions and timing of commercial operations; the value of TransAlta's hydro fleet, including ability to maintain higher realized ancillary pricing and energy pricing compared to the spot price; realization of the anticipated benefits of thermal and peaking

generation facilities; TransAlta's acquisition of Heartland, including timing of closing and the anticipated benefits arising from such transaction; the Alberta portfolio strategy and priorities, including new technologies for post-2025 and optimizing value from the diversified fleet; TransAlta's energy marketing business ability to deliver value with low risk; expected EBITDA contribution from TransAlta's Energy Marketing segment; the ability to achieve the updated Clean Electricity Growth Plan targets, including delivering up to an incremental 1.75 GW of clean electricity capacity, a 10 GW pipeline, and deploying approximately \$3.5 Billion of growth capital, and achieving cumulative annual EBITDA from new growth projects of \$350 million, in each case to 2028; the ability to pursue and execute joint development projects with Hancock Prospecting; ability to proceed to construction and operation of the Company's advanced development projects, including WaterCharger, Pinnacle and the Mount Keith Expansion, and the timing thereof and the expected EBITDA contribution thereof; technology pathways in the short and medium term, including storage, hydrogen fired generation, smart grids and EV adoption and the evolving nuclear landscape; TransAlta's Data and Innovation center's ability to maximize availability and extract value from assets; the Company's mine reclamation costs; the sources of funding for the update Clean Electricity growth plan and the Company's ability to access a variety of sources for funding, including free cash flow; TransAlta's repayment of \$1.5 Billion in amortizing project debt; and the Company achieving a Debt to EBITDA ratio of between 3 to 4 times.

These statements are based upon certain material factors or assumptions that were applied in developing the forward-looking statements, including: the design specifications of development projects; management's current plans and its perception of historical trends; current conditions and expected future developments; merchant power prices in Alberta and the Pacific Northwest; the Alberta hedge position, including price and volume of hedged power; the availability and cost of labour, services and infrastructure; and the satisfaction by third parties of their obligations, including under our power purchase agreements as well as other factors that are believed to be appropriate in the circumstances. Some of the factors, many of which are beyond TransAlta's control and the effects of which can be difficult to predict, but may cause actual results to differ materially from those contemplated or implied by forward looking statements include, but are not limited to: fluctuations in merchant power prices, including lower pricing in Alberta, Ontario and Mid-Columbia; changes in demand for electricity and capacity; our ability to contract or hedge our electricity generation for prices and at volumes that will provide expected returns; risks relating to our early stage development projects, including interconnection, offtake contracts and geotechnical and environmental conditions of such projects; long term commitments on gas transportation capacity that may not be fully utilized over time; our ability to replace or renew contracts as they expire; risks associated with our projects under construction and projects in development, namely as it pertains to capital costs, permitting, land rights, engineering risks, and delays in the construction or commissioning of such projects; any difficulty raising needed capital in the future, including debt, equity and tax equity, as applicable, on reasonable terms or at all; the inability to obtain regulatory approvals necessary for the acquisition of Heartland Generation, on terms satisfactory to TransAlta or at all; changes to the legislative, regulatory and political environments in the jurisdictions in which we operate; environmental requirements and changes in, or liabilities under, these requirements; operational risks involving our facilities, including unplanned outages; disruptions in the transmission and distribution of electricity, including congestion and basis risk; restricted access to capital and increased borrowing costs; changes in short-term and/or long-term electricity supply and demand; reductions in production; increased costs; a higher rate of losses on our accounts receivables due to credit defaults; impairments and/or write-downs of assets; adverse impacts on our information technology systems and our internal control systems, including increased cybersecurity threats; commodity risk management and energy trading risks, including the effectiveness of the Company's risk management tools associated with hedging and trading procedures to protect against significant losses; 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 on the expected timelines or at all; the effects of weather, including man-made or natural disasters, as well as climate-change related risks; unexpected increases in cost structure; reductions to our generating units' relative efficiency or capacity factors; disruptions in the source of fuels, including natural gas and coal, as well as the extent of water, solar or wind resources required to operate our facilities; general economic risks, including deterioration of equity markets, increasing interest rates or rising inflation; the inability to fully utilize or monetize the gas transport capacity; failure to meet financial expectations; general domestic and international economic and political developments, including armed hostilities, the threat of terrorism, diplomatic developments or other similar events; equipment failure and our ability to carry out or have completed the repairs in a cost-effective manner timely manner or at all; industry risk and competition; public health crises and the impacts of any restrictive directives of government and public health authorities; fluctuations in the value of foreign currencies; structural subordination of securities; counterparty credit risk; inadequacy or unavailability of insurance coverage; our provision for income taxes; legal, regulatory and contractual disputes and proceedings involving the Company; reliance on key personnel; and labour relations matters. TransAlta cautions that the foregoing list of important factors that may affect future results is not exhaustive. When relying on the Company's forward-looking statements, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Except as required by law, TransAlta undertakes no obligation to publicly update or revise any forward-looking statements or information in this presentation, whether as a result of new information, future events or otherwise. Past performance is not indicative or a guarantee of future results. The foregoing risk factors, among others, are described in further detail in the Company's Management Discussion and Analysis for the nine months ended September 30, 2023 and Annual Information Form for the year ended December 31, 2022, filed under the Company's profile on SEDAR at www.sedar.com and with the U.S. Securities and Exchange Commission at www.sec.gov. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect the Company's expectations only as of the date of this presentation. The purpose of the financial outlooks contained in this presentation 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.

This presentation contains references to financial measures that are calculated and presented using methodologies other than in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board, including EBITDA, funds from operations ("FFO") and free cash flow ("FCF"), and such measures 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 Management's Discussion and Analysis for the nine months ended September 30, 2023 for further discussion of these items, including, where applicable, reconciliations to measures calculated in accordance with IFRS. The Company utilizes these measures in managing the business, including for performance measurement, capital allocation and valuation purposes and believe that providing these performance measures on a supplemental basis to its IFRS results is helpful to investors in assessing the overall performance of TransAlta's businesses. The Company cautions readers that these non-IFRS financial measures or other financial metrics may differ from the calculations disclosed by other businesses and, as a result, may not be comparable to similar measures presented by other issuers and entities.



TransAlta at a glance



\$8.7 billion

Enterprise value

Strong balance sheet
and capital discipline



112 years

Generation experience

Foundation of our
focused strategy



\$3.5 billion

Market capitalization

Listed on the
TSX and NYSE



1,280

Employees

Central to
value creation

6,400 MW

Diversified portfolio

76 generating facilities in Canada,
United States and Australia

~\$900 million

2023 expected free cash flow

Continued strong performance

32 million tonnes

**Annual emissions reductions
since 2005**

10% of Canada's emissions
reduction target



Who we are

**A leader in clean electricity
committed to a sustainable
future and a responsible
energy transition**

Our Strategy

Customer needs

Operational excellence

People

Shareholder value

Our Values

Safety

Innovation

Sustainability

Respect

Integrity



transalta™

Hydro



Gas



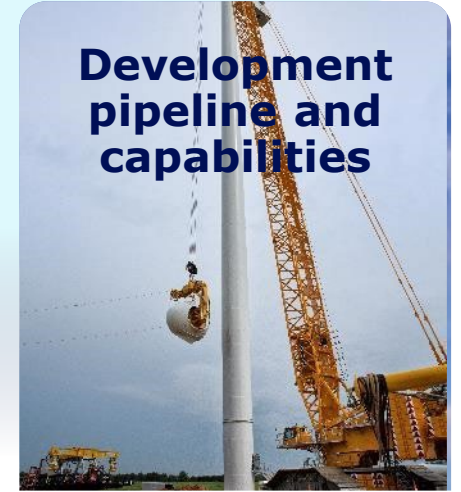
Wind and solar



**Energy
marketing**



**Development
pipeline and
capabilities**



**Highly diversified portfolio of high-quality assets
Stable contracted base with Alberta merchant upside**

Fleet Overview



Wind, Solar and Storage

33 Facilities



Hydro

25 Facilities



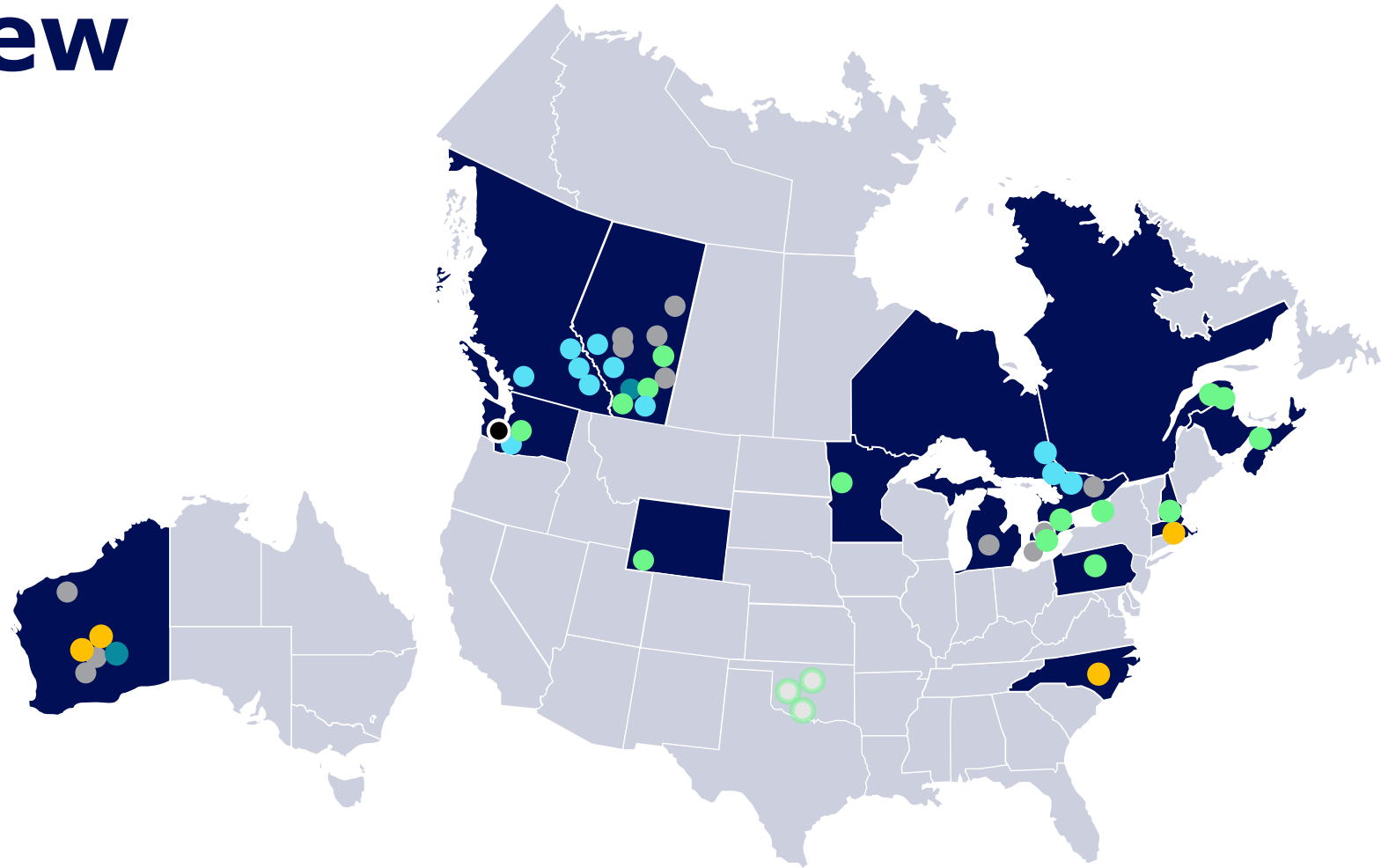
Natural Gas

17 Facilities



Coal

1 Facility



Technology:

● Wind ● Solar ● Hydro ● Battery ● Natural Gas ● Coal ● Wind Under Construction



Strategic position strengthened since 2021



Progressed Clean Electricity Growth

+800 MW of wind and solar

+2.7 GW increase in development pipeline



Simplified Corporate Structure

+1.2 GW increase in economic ownership of capacity through TransAlta Renewables acquisition



Advanced Carbon Transition

-800 MW of thermal generation retired



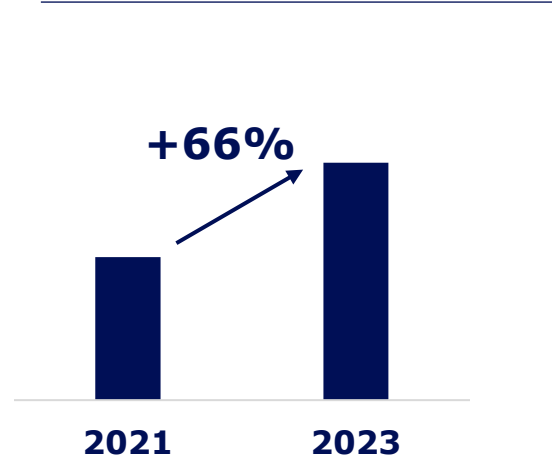
Expanded Alberta Diversification

+1.8 GW of complementary flexible capacity through Heartland acquisition

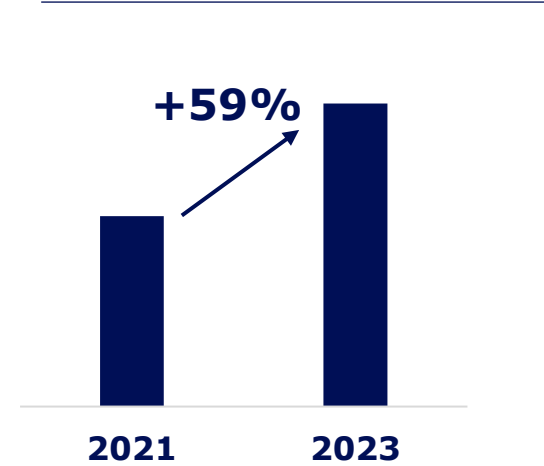


Delivered exceptional results

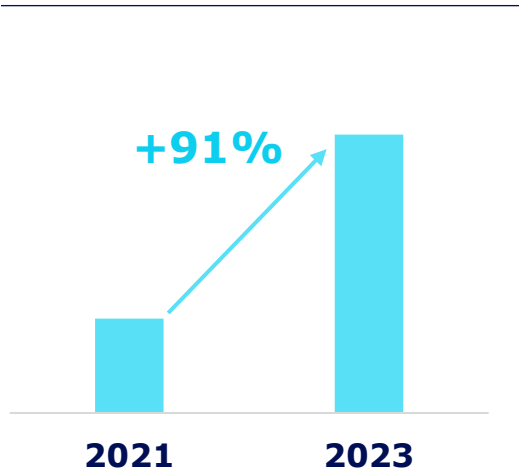
Free Cash Flow¹



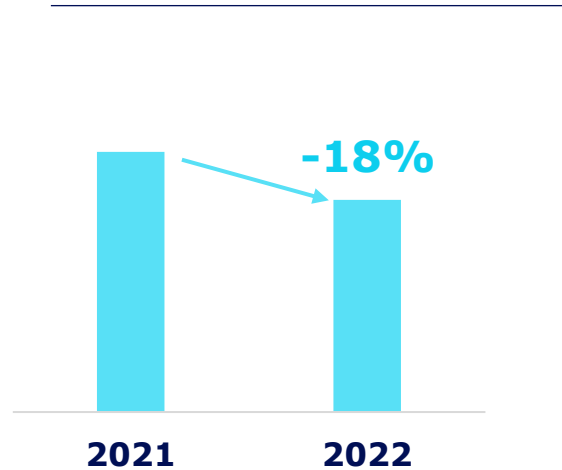
Adjusted EBITDA¹



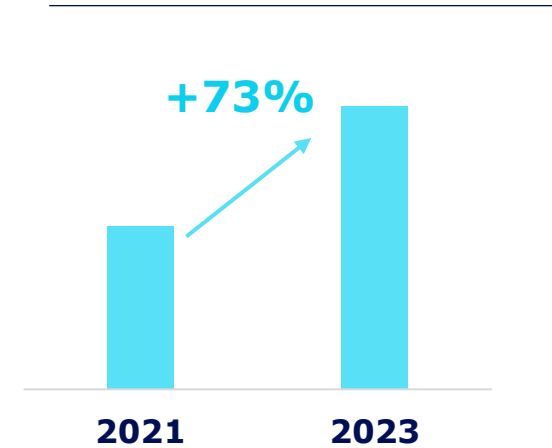
Contractedness^{1,2}
(MW)



Emissions reductions
(Millions tonnes CO₂)



Renewable capacity^{1,2}
(MW)



Since our last Investor Day

Free Cash Flow¹ increased by

\$360 Million

EBITDA¹ increased by

\$650 Million

Contractedness^{1,2} increased by

1.7 GW

Emissions reduced by

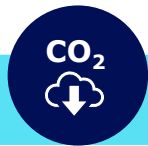
3 million tonnes CO₂

Increased renewable capacity^{1,2} by

1.4 GW



Electrification presents significant opportunities



Global efforts to **decarbonize** are accelerating at a rapid pace



Policy responses are fast-tracking the emergence of a **clean electricity economy**






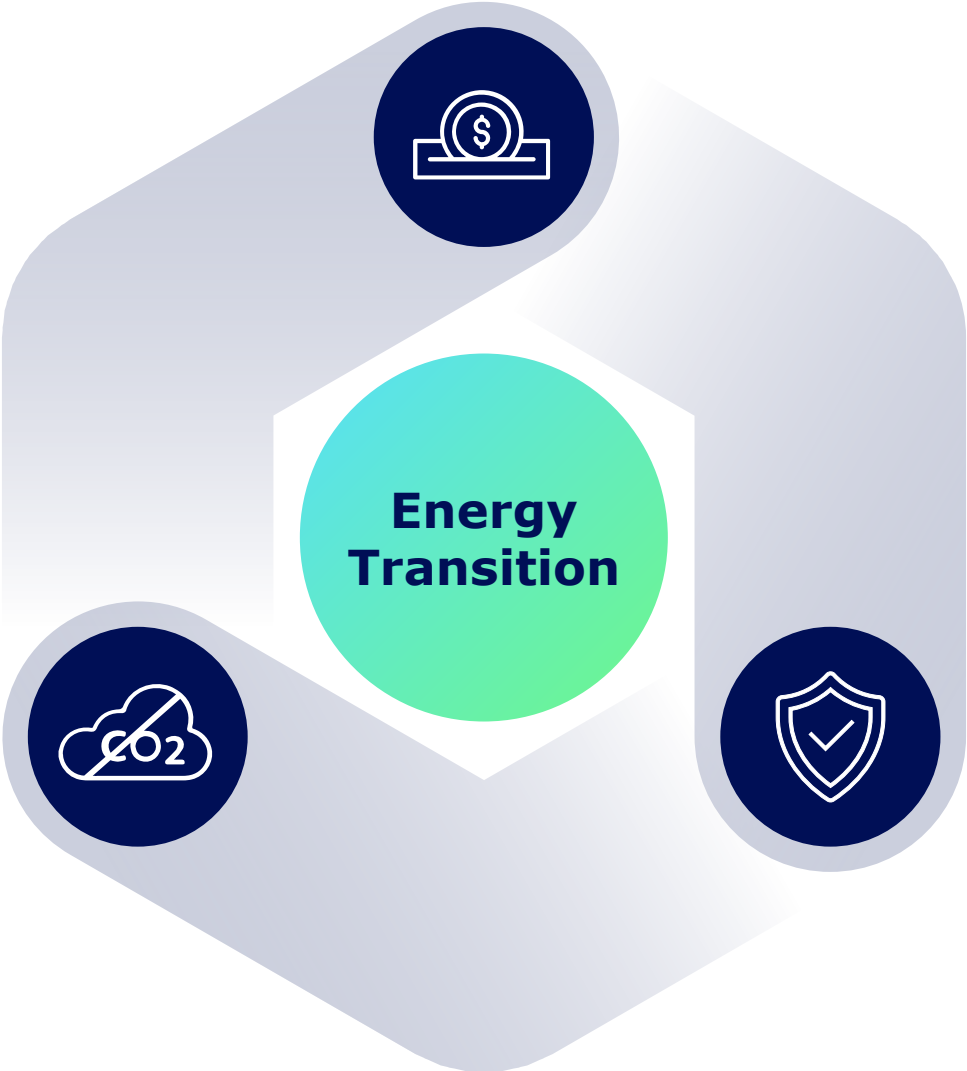
Corporations and investors are **leading** by committing to net-zero goals



Significant investment required to meet the challenge

Balanced approach required for success in energy transition

-  **Affordability**
-  **Reliability**
-  **Decarbonization**

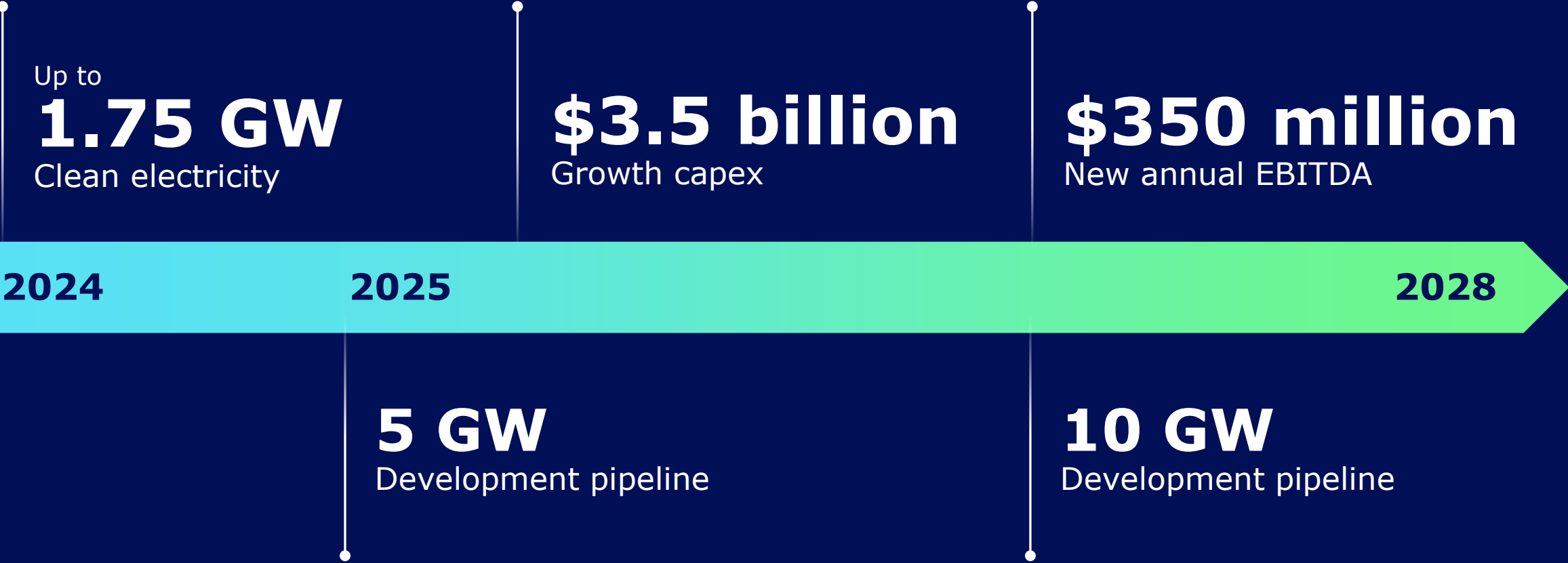


Strategic priorities to 2028

- 1 Optimize Alberta portfolio
- 2 Execute Clean Electricity Growth Plan
- 3 Selective expansion of flexible generation and reliability assets
- 4 Maintain financial strength and capital allocation discipline
- 5 Define next generation of power solutions
- 6 Lead in ESG and market policy development



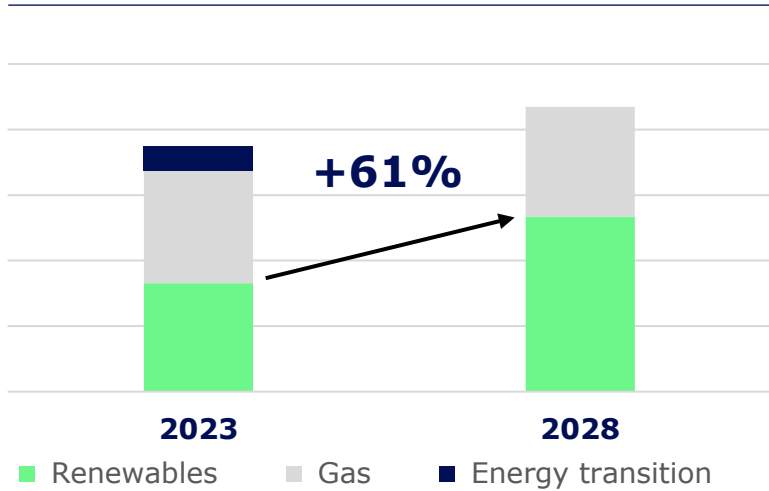
Clean Electricity Growth Plan to 2028



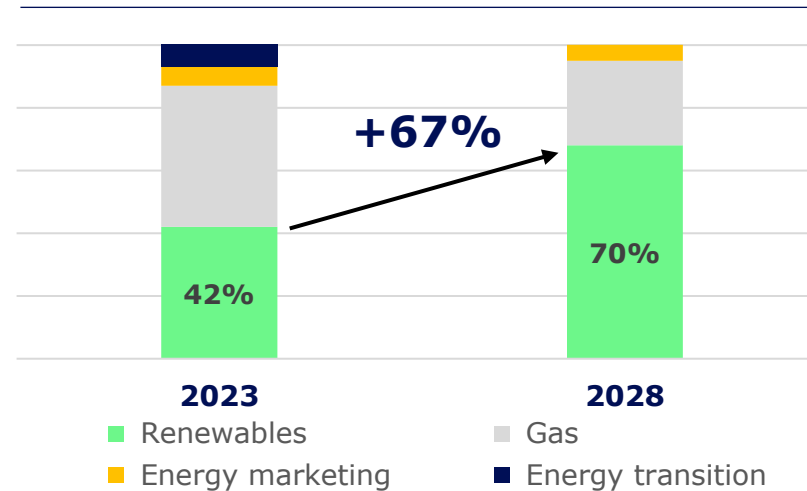
Evolution of the company

Capacity (MW)¹

Renewables



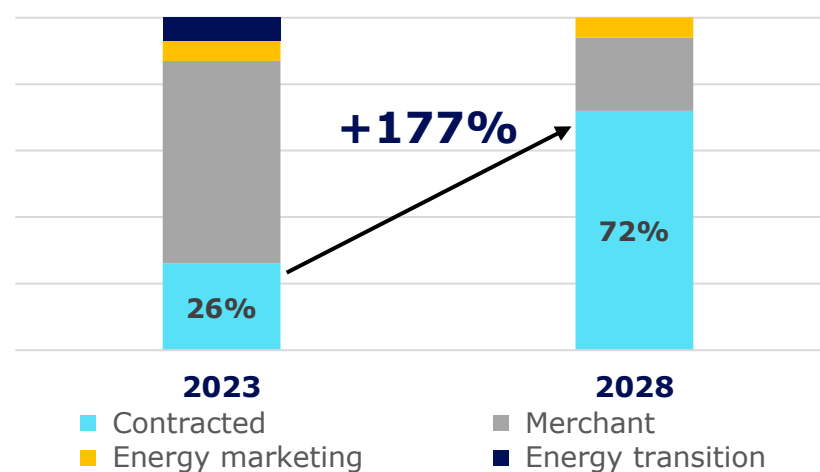
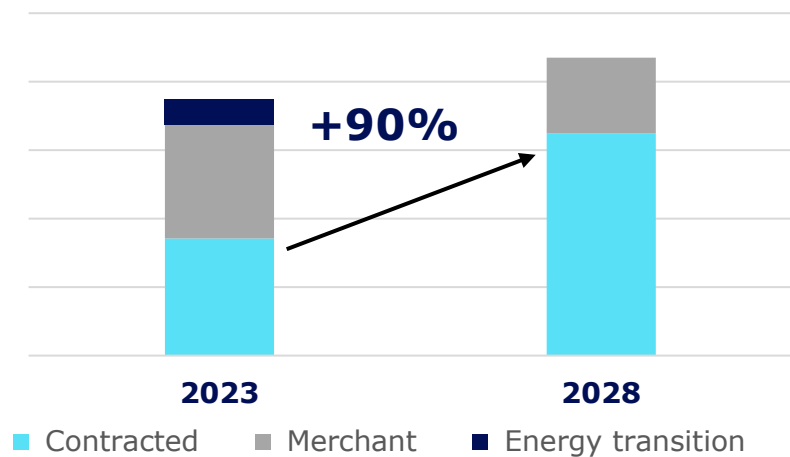
Adjusted EBITDA (%)



Growing our **renewable** generation

Growing our **contracted** base

Contracted



EBITDA attributable to renewables will reach **70%**

¹ Includes Horizon Hill, White Rock, the Clean Electricity Growth Plan and assets from the Heartland acquisition.



Foundations for our success



Optimization and trading expertise



Highly credible developer



Local presence



Operational excellence



Strong balance sheet



Technological innovation



Sustainability targets



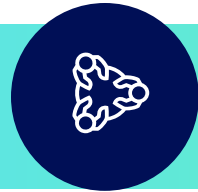
Environmental goals

Net zero by 2045

Reduce GHG emissions by **75%** by 2026¹

Verify 80% of our scope 3 emissions by 2024

End coal generation in US by 2025



Social goals

Support for **indigenous communities**

Reclaim mined land in Alberta and Washington State

By 2024, **80% of our spend** will be with suppliers committed to sustainability



Governance goals

50% female Board representation by 2030

40% company-wide female employment by 2030

Leadership on ESG reporting within financial disclosures



Committed to emissions reductions

TransAlta carbon reductions achieved to date¹

↓76%

From 2005 levels

↓32M

Annual tonnes from 2005

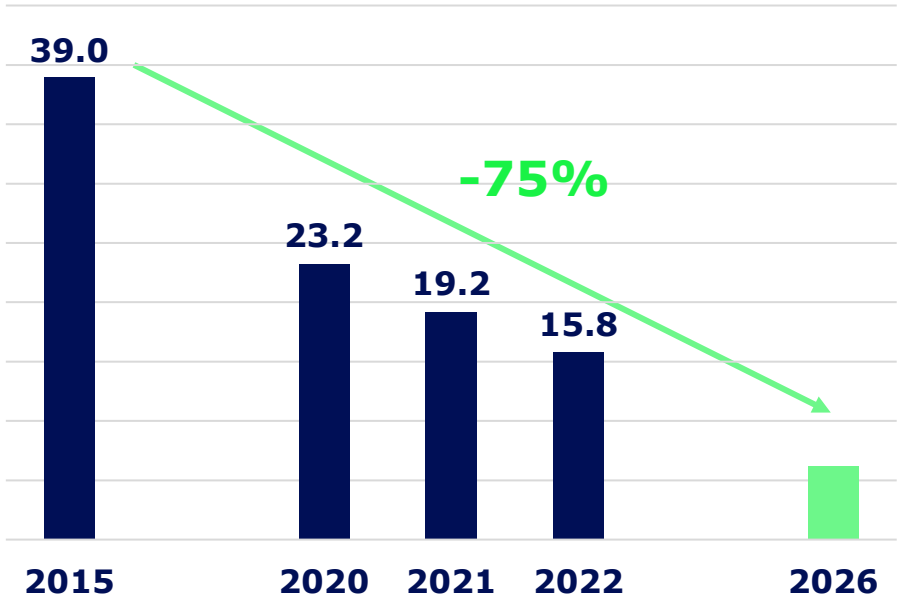
~10%

Of Canada's Paris Agreement Target

0%

Coal-fired emissions in Canada

Combined emissions of TransAlta and Heartland² (million tonnes CO₂)



¹ TransAlta's carbon reductions achieved to date do not include Heartland assets.

² Heartland's emissions are estimated values based on available data. As required by internationally accepted calculation methodologies, we will review our base-year emissions for any significant impacts as a result of changes in available data, calculation methodologies and major acquisitions or divestments.



Recognized as a global leader



TransAlta Corporation received an A-, which is in the Leadership band. This is above the thermal power generation sector average of B.”



TransAlta Corporation received an AA, which is the second highest rating given by MSCI on ESG related business practices.”



TransAlta Corporation received three awards for best overall (mid-cap) in the utilities sector, best ESG reporting (mid-cap) and best innovation in shareholder communications.”



26th
Ranking
Overall





2023 performance

Horseshoe, Alberta



Q3 2023 Achievements



Q3 2023 Results and Financial Position

Adjusted EBITDA¹ of **\$453 million**

FCF¹ of **\$228 million** or **\$0.87** per share

Availability of **91.9%**

Access to **\$1.8 billion** in liquidity²



Growth and Customer Solutions

418 MW of advanced-stage development projects

Garden Plain achieved COD

Energized **36 turbines** at the Kent Hills wind facilities

Advanced construction on Horizon Hill, Mount Keith, Northern Goldfields and White Rock



Strategic Initiatives

TransAlta Renewables acquisition adds proportionate capacity of **+1.2 GW**

Ownership in additional **~1.8 GW** of assets through acquisition of Heartland Generation

Added **186 MW** to development pipeline across Australia, Canada and the US in Q3

¹ Adjusted EBITDA, Free Cash Flow, and Free Cash Flow 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 M30-M38 in the MD&A for the third quarter of 2023, are available on SEDAR at www.sedarplus.ca, and on www.transalta.com under the Investors section.

² As at Sept. 30, 2023, we had access to \$2.6 billion in liquidity, including \$1.2 billion in cash; well in excess of the funds required for committed growth, sustaining capital and productivity projects. On Oct. 5, 2023, \$800 million of cash was used for the TransAlta Renewables transaction.



Attractive Deal Metrics for Heartland Transaction



TEV¹/EBITDA²
Multiple at Closing



Annual Average
EBITDA²
Contribution



Cost per kW³



Contracted Cash
Flows

~5.5x
Multiple

~\$115
Million

\$357
Per kW

~55%
Revenue

Adds 1,844 MW of complementary flexible capacity

¹ TEV is an abbreviation of total enterprise value.

² EBITDA is a non-IFRS measure, certain additional disclosure for these specified financial measures have been incorporated by reference and can be found on slide 2 of this presentation.

³ kW is an abbreviation of kilo-watt.



Heartland Transaction at a Glance



November 2023

Purchase price of \$390 million plus \$268 million of low-cost debt



Subject to customary closing conditions and regulatory approvals



2024

Transaction closes
Financed using available liquidity



TransAlta Segmented Results

3 and 9 Months Ended September 30, 2023

(\$millions)

Q3 2023	Q3 2022	Adjusted EBITDA ¹	YTD 2023	YTD 2022
150	245	Hydro	403	394
37	42	Wind and Solar	175	219
254	195	Gas	660	365
29	51	Energy Transition	96	67
13	53	Energy Marketing	95	120
(30)	(31)	Corporate	(86)	(72)
453	555	Total	1,343	1,093

**Alberta Gas
fleet
continues
to have
exceptional
value**

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 M30-M38 in the MD&A for the third quarter of 2023, are available on SEDAR at www.sedarplus.ca, and on www.transalta.com under the Investors section.



Alberta Electricity Portfolio

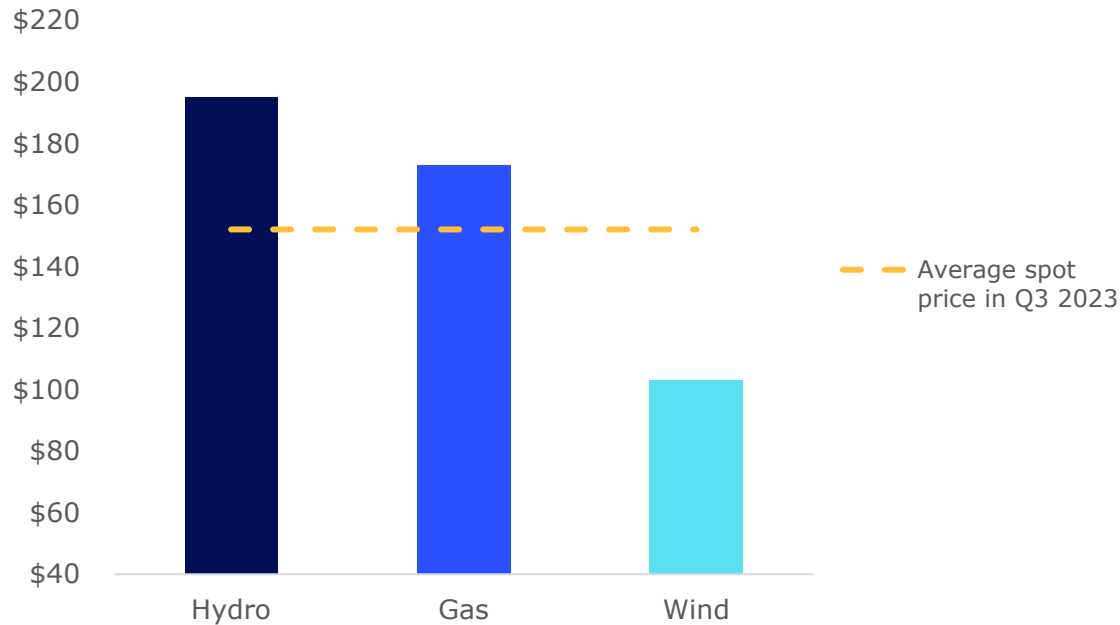
Q3 2023 Realized Prices

128%

AB Hydro average realized merchant energy price to spot in Q3 2023

114%

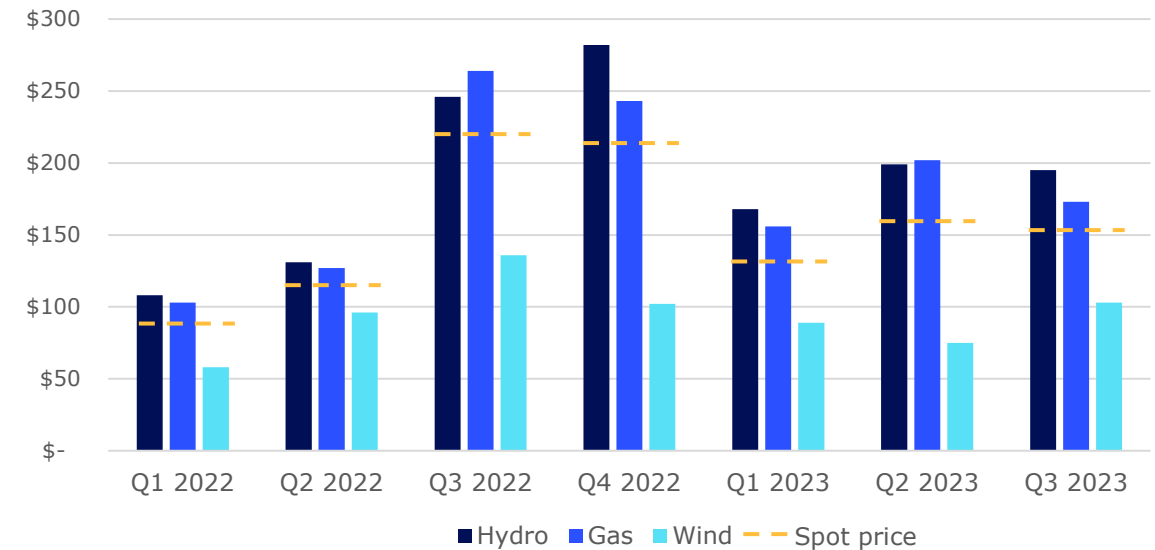
AB Gas average realized merchant energy price to spot in Q3 2023¹



Alberta Hedging

		Q4 2023	2024
Energy	Price	\$89 / MWh	\$84 / MWh
	Volume	1,697 GWh	6,642 GWh
Natural Gas	Price	\$2.34 / GJ	\$2.73 / GJ
	Volume	95% ²	85% ³

Quarterly Realized Merchant Prices



¹ Excludes gains and losses from hedging positions.

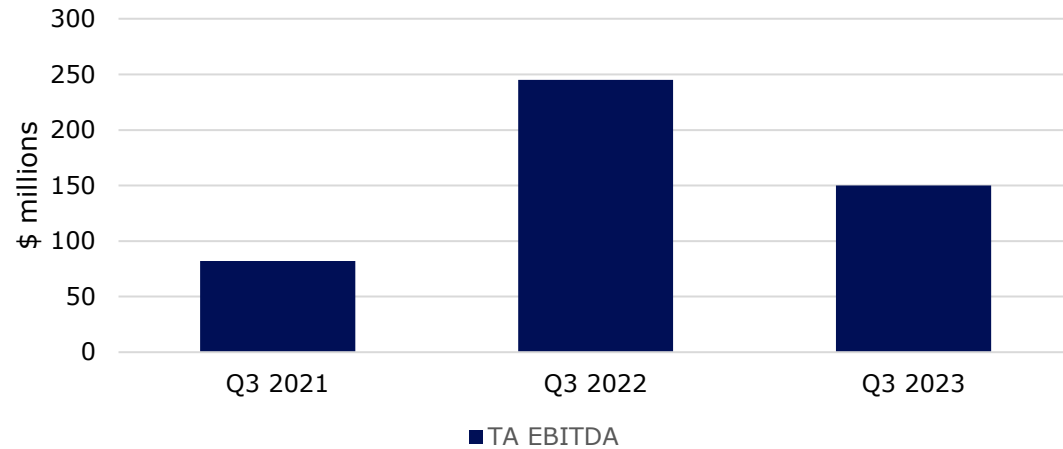
² 17 million GJ representing 95% of Q4 2023 hedged energy production.

³ 59 million GJ representing 85% of 2024 hedged energy production.

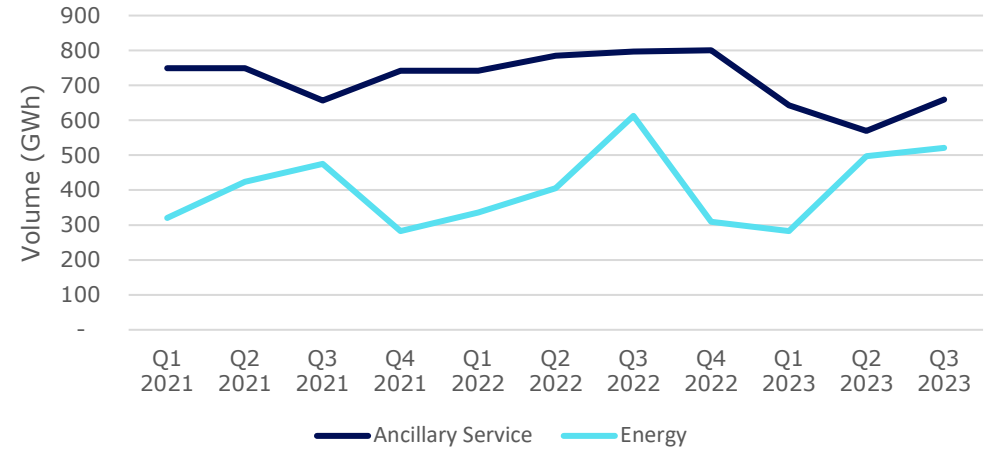


Strong Performance from Alberta Hydro

Hydro Adjusted EBITDA¹ (\$millions)

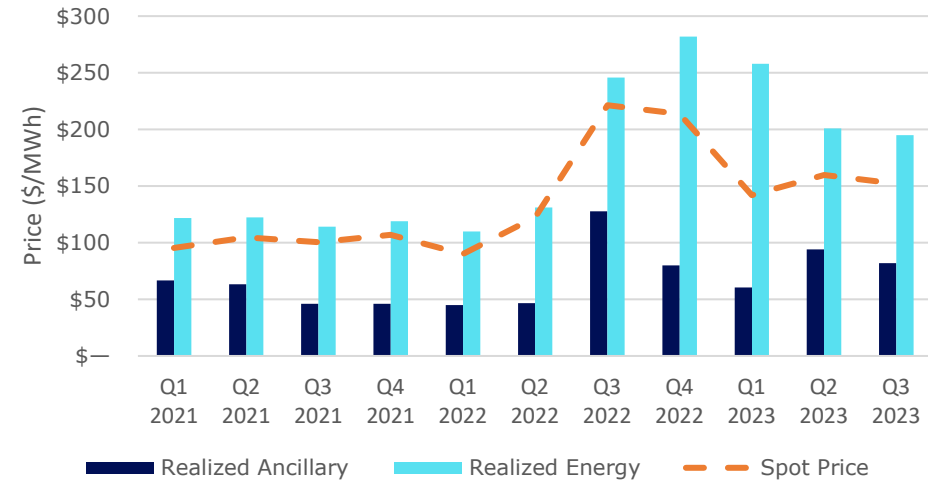


Hydro Volumes (GWh)



Hydro continues to provide premiums to spot prices

Realized Prices (\$/MWh)



50%

Average Realized Ancillary Price to Spot

126%

Average Realized Energy Price to Spot



2023 in-year priorities

Windrise, Alberta



2023 Priorities



Safety, Reliability and Availability

Achieve strong safety performance

Achieve strong fleet availability



Growth and Commercial

Progress 418 MW advanced-staged projects

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

Expand development pipeline

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 \$1,700 to \$1,800 million

Deliver FCF of \$850 to \$950 million

Complete rehabilitation and return to service of Kent Hills

Deliver financing for growth projects



Health and Values

Complete Indigenous Cultural Awareness Training across the US and Australia

Continue progress towards 40% gender diversity target



2024 outlook

Windrise, Alberta



2024 guidance

(\$ millions)	2024 Outlook
Adjusted EBITDA¹	1,150 to 1,300
FCF¹	450 to 600
Sustaining Capital	130 to 150

Market	2024 Outlook
Alberta Spot (\$/MWh)	75 to 95
Mid-C Spot (US\$/MWh)	85 to 95
AECO Gas Price (\$/GJ)	2.50 to 3.00



Alberta market evolution

Big Horn, Alberta



Alberta business



Maximize

shareholder returns through **active management** of our **diversified** merchant **portfolio**



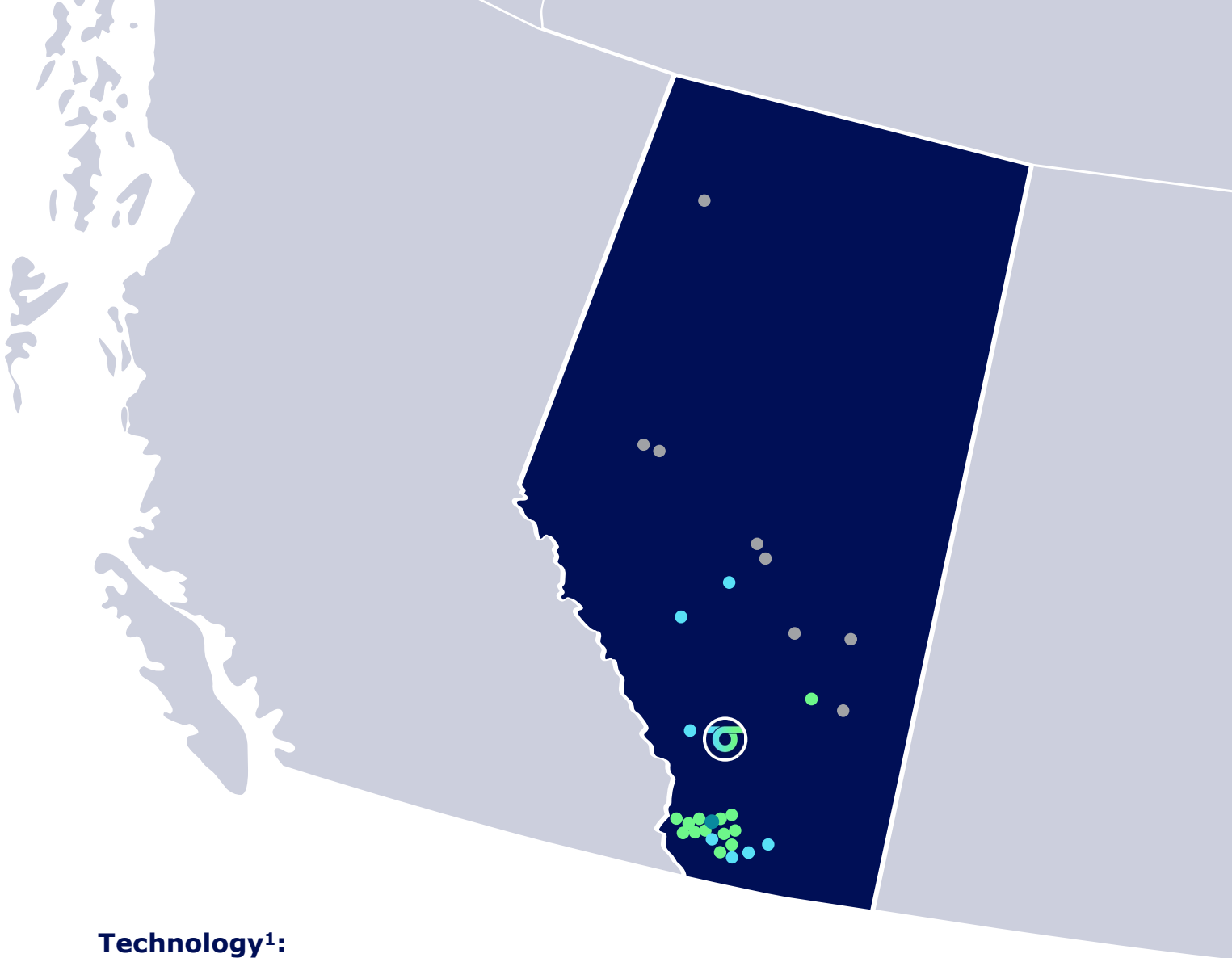
Provide

dynamic, cost-effective and low-carbon **solutions** to meet **customer power demand** and **ESG goals**



Identify

and evaluate market and technological sources for **long-term growth**



Technology¹:

- Wind
- Hydro
- Battery
- Natural Gas
- Head Office

¹ Includes Heartland Generation assets



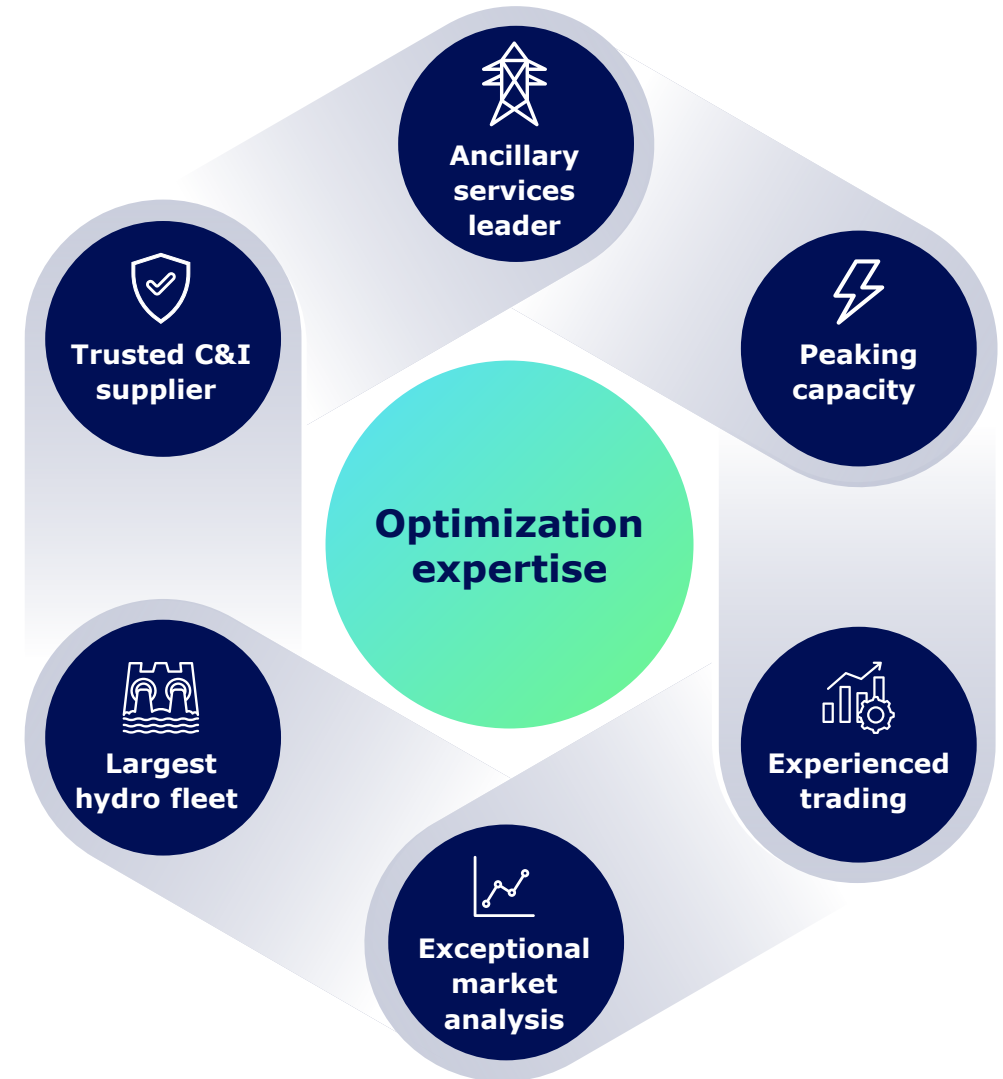
Hedging and optimization increases our advantage

112-year extensive operating expertise

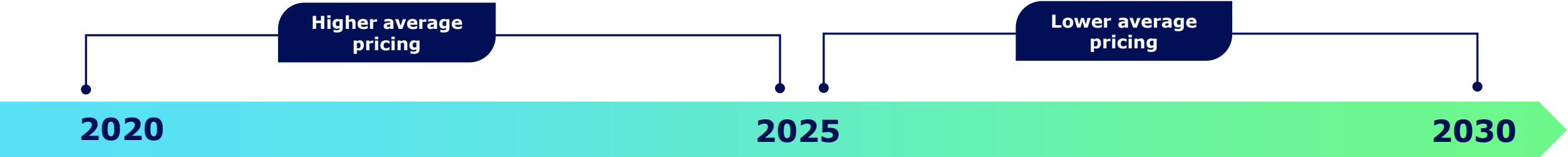
Exceptional **in-house forecasting and analytical** capabilities

Integrated **asset optimization and operations** to ensure portfolio value maximization

Large customer base spanning the wholesale, commercial and industrial base



Merchant electricity market evolution



Moderate volatility

Baseload generation

Higher carbon footprint

Hedging and optimization



Higher volatility

Peaking generation and fleet diversity

Lower carbon footprint

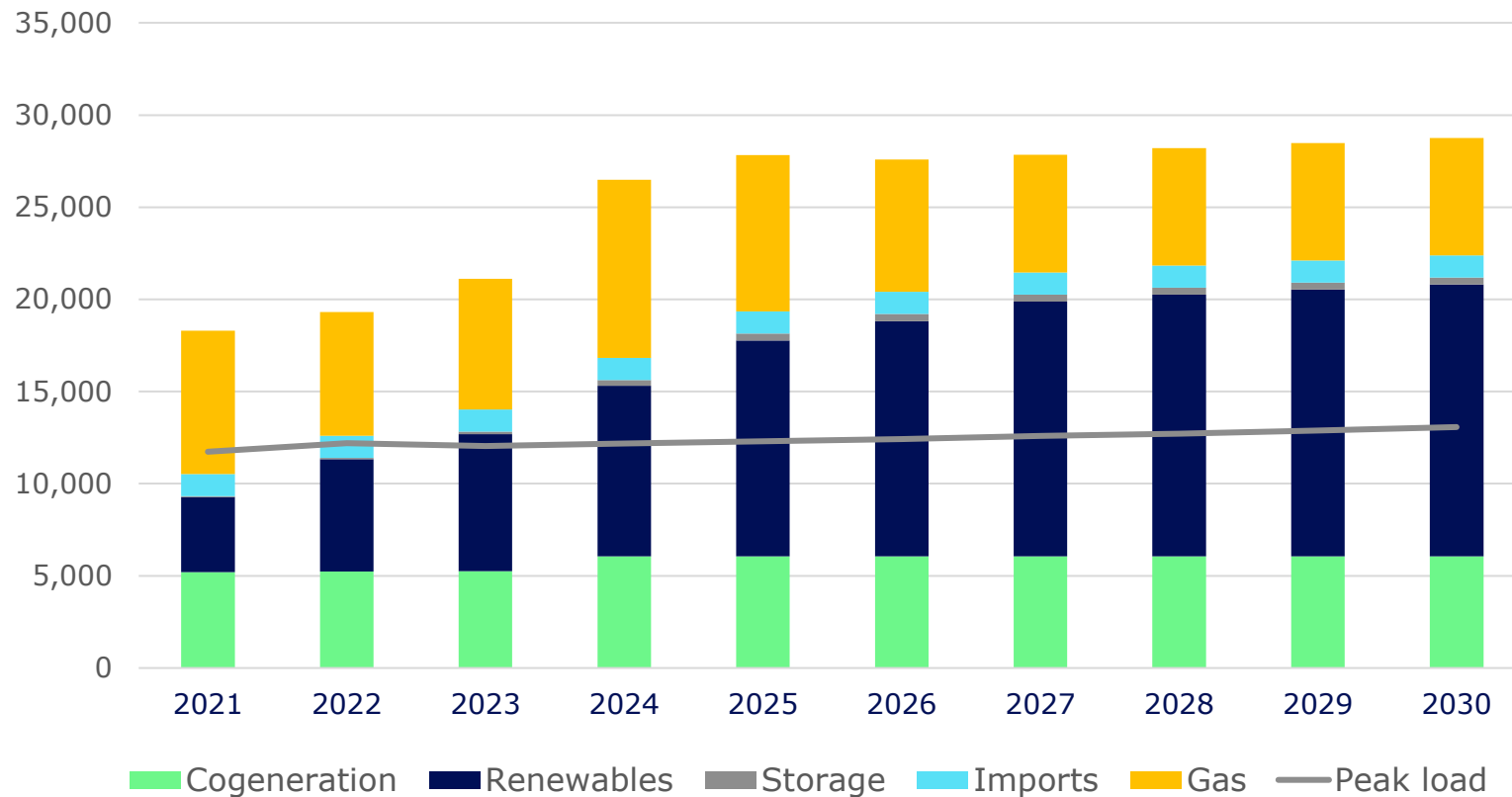
Optimization

Grid reliability services



Major supply shift continues

Alberta installed capacity and peak load (MW)



+185%

Expected supply growth in renewables

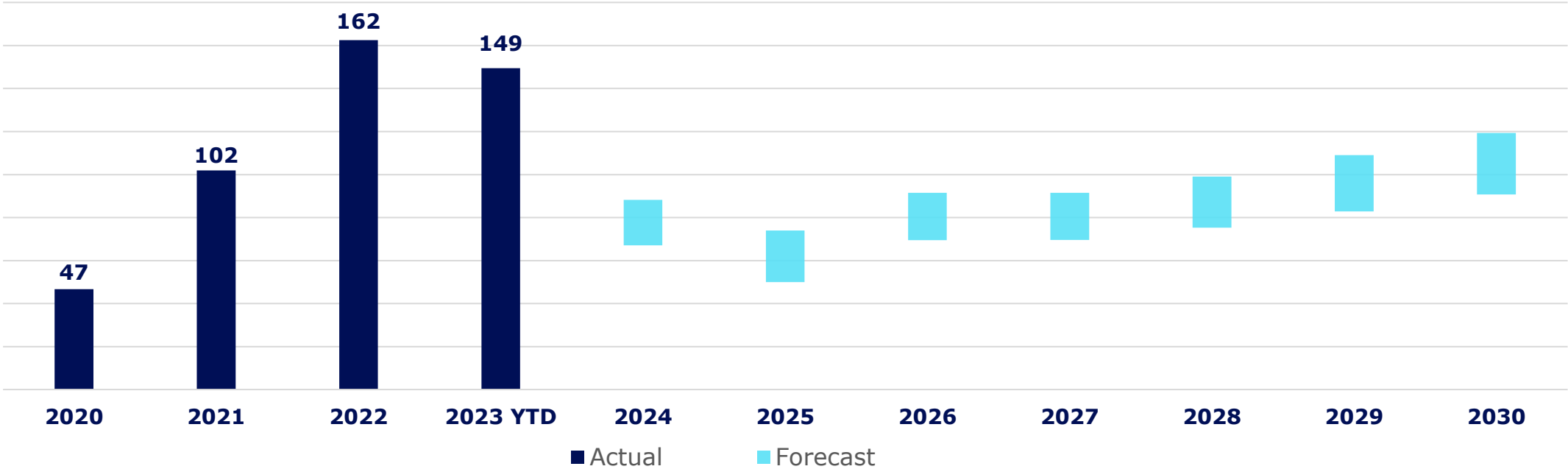
+140%

Expected supply growth in combined cycle gas



Prices expected to soften mid-decade with supply

Annual average power price forecast (\$ per MWh)

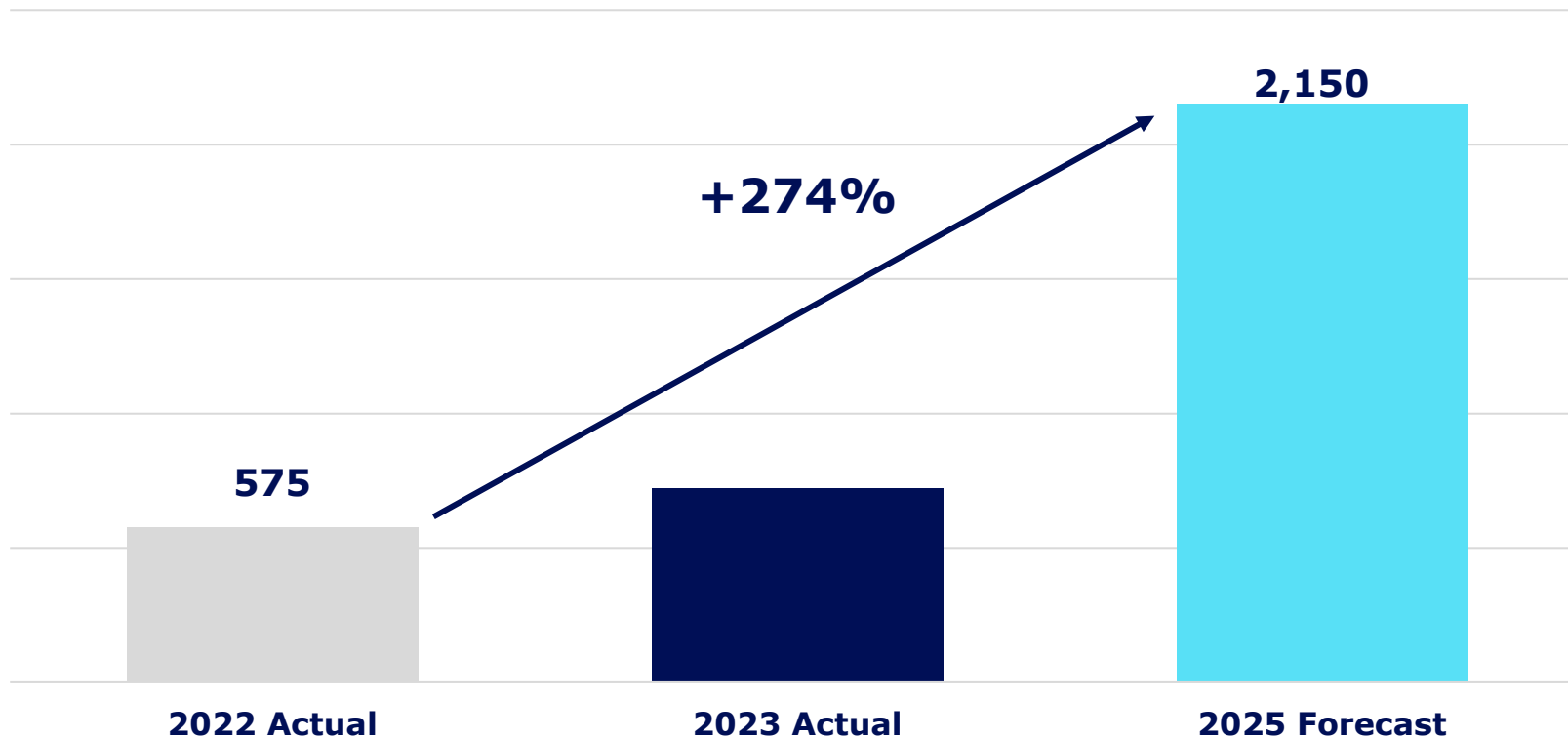


Prices to decline before **rebounding** later in the decade



Intraday volatility of renewable supply

Renewable generation - maximum hourly change (MW)



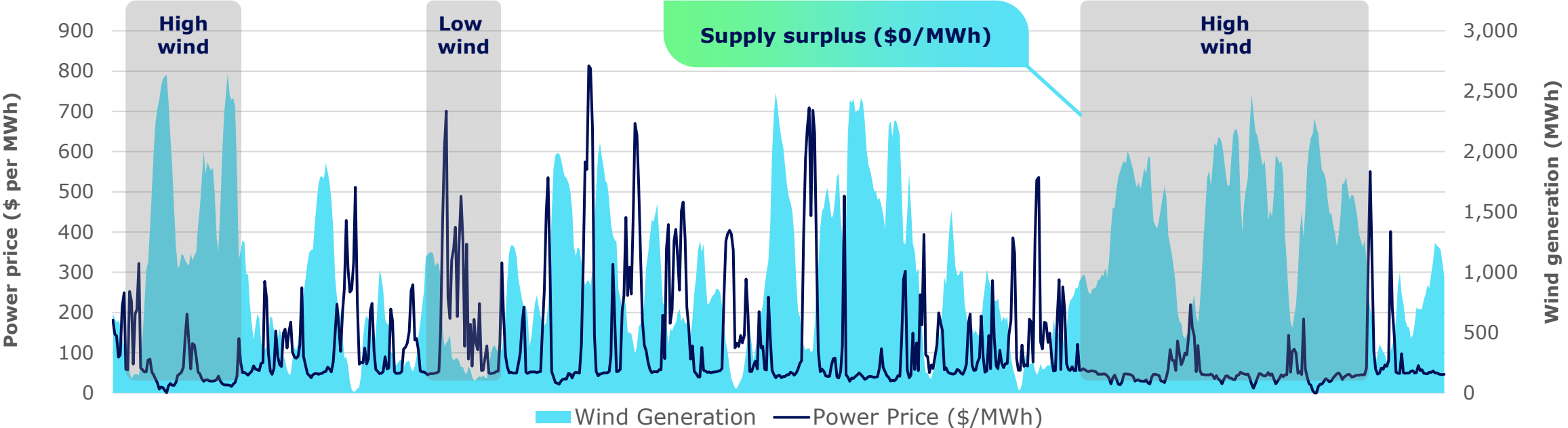
Increasing renewable generation will result in larger hour-to-hour changes in output

Challenging the reliability of the system



Wind penetration will increase volatility in price

September 2023 wind generation and power price volatility



Low wind generation allows for higher prices, while high wind generation tends to drive lower pricing or even supply surplus conditions.



Increasing diversification of future portfolio



Wind¹



Hydro²



Storage³



Thermal Gas⁴



Peaking Gas^{4,5}



Cogen Gas⁴

Assets

15	17	3	7	5	5
Capacity					
1,134 MW	834 MW	350 MW	2,439 MW	431 MW	542 MW
Intermittent Carbon-free	Baseload and peaking energy	Energy arbitrage / peaking	Baseload + dispatchable – long lead start-ups	Peaking/ flexible	Non-dispatchable
Energy only	Ancillary services	Ancillary services including fast frequency response	Energy plus ancillary services	Energy plus ancillary services	Energy only

Total All Types: 5.7 GW

¹Includes Alberta, Tempest and Riplinger.
²Includes all Alberta hydro assets.
³Includes Tent Mountain and WaterCharger.
⁴Includes Heartland Generation.
⁵Includes Pinnacle.



Comparison of technology capabilities

Technology	Baseload Energy ¹	Fast Response Energy ¹	Carbon Free Energy ¹	Regulating Reserve	Spinning Reserve	Supplemental Reserve	Fast Frequency Response
Hydro	✓	✓	✓	✓	✓	✓	
Wind / Solar			✓				
Thermal CTG	✓			✓	✓		
NGCC	✓			✓	✓	✓	
NG Peaking		✓			✓	✓	
Storage		✓	✓		✓	✓	✓

Legend:

● TA capabilities²

¹Baseload energy is capable of running 24 hours per day; fast response energy can deliver within 10 minutes or less; carbon free energy cannot respond to system operator instructions.
² Includes Heartland Generation.



Value of hydro portfolio



Key supplier of regulating reserves



Market size of ancillary services to be in the range of **\$200M to \$400M** per year



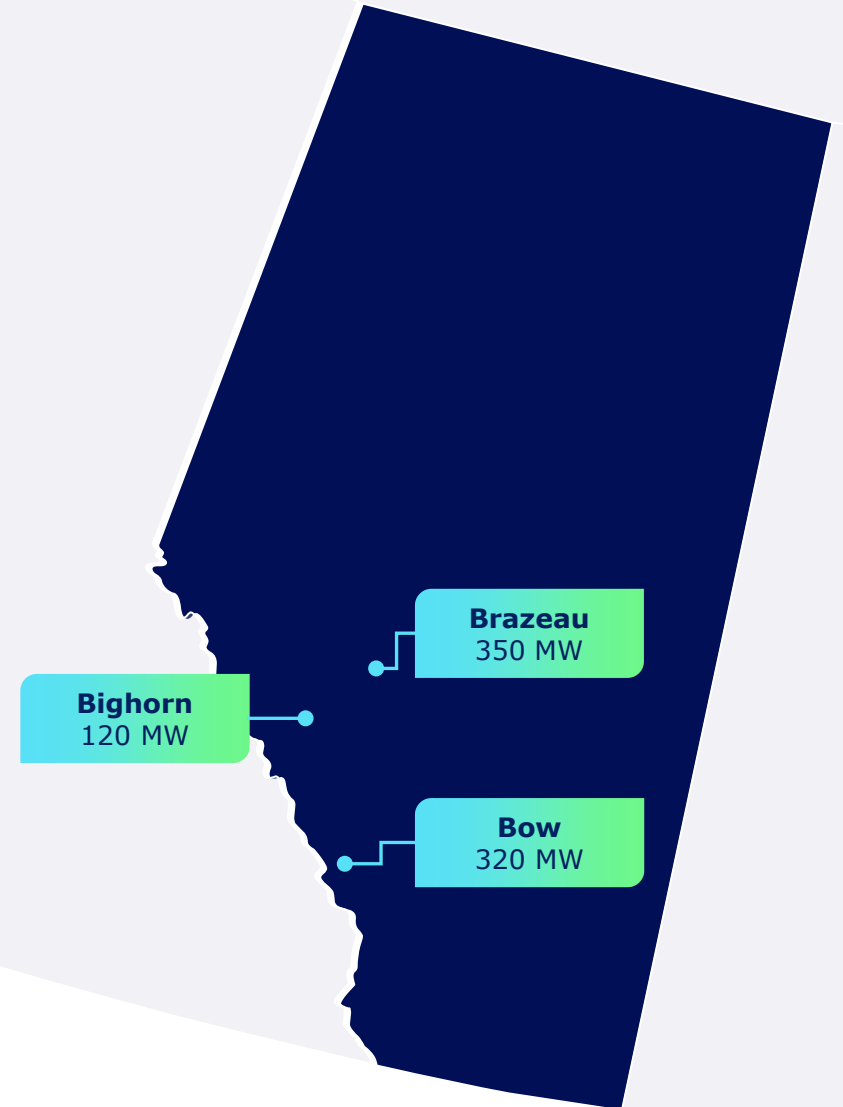
Merging conventional hydro and battery storage **expands optionality**



Growth in electrification, demand, renewables and energy imports are **all supportive of hydro** valuation

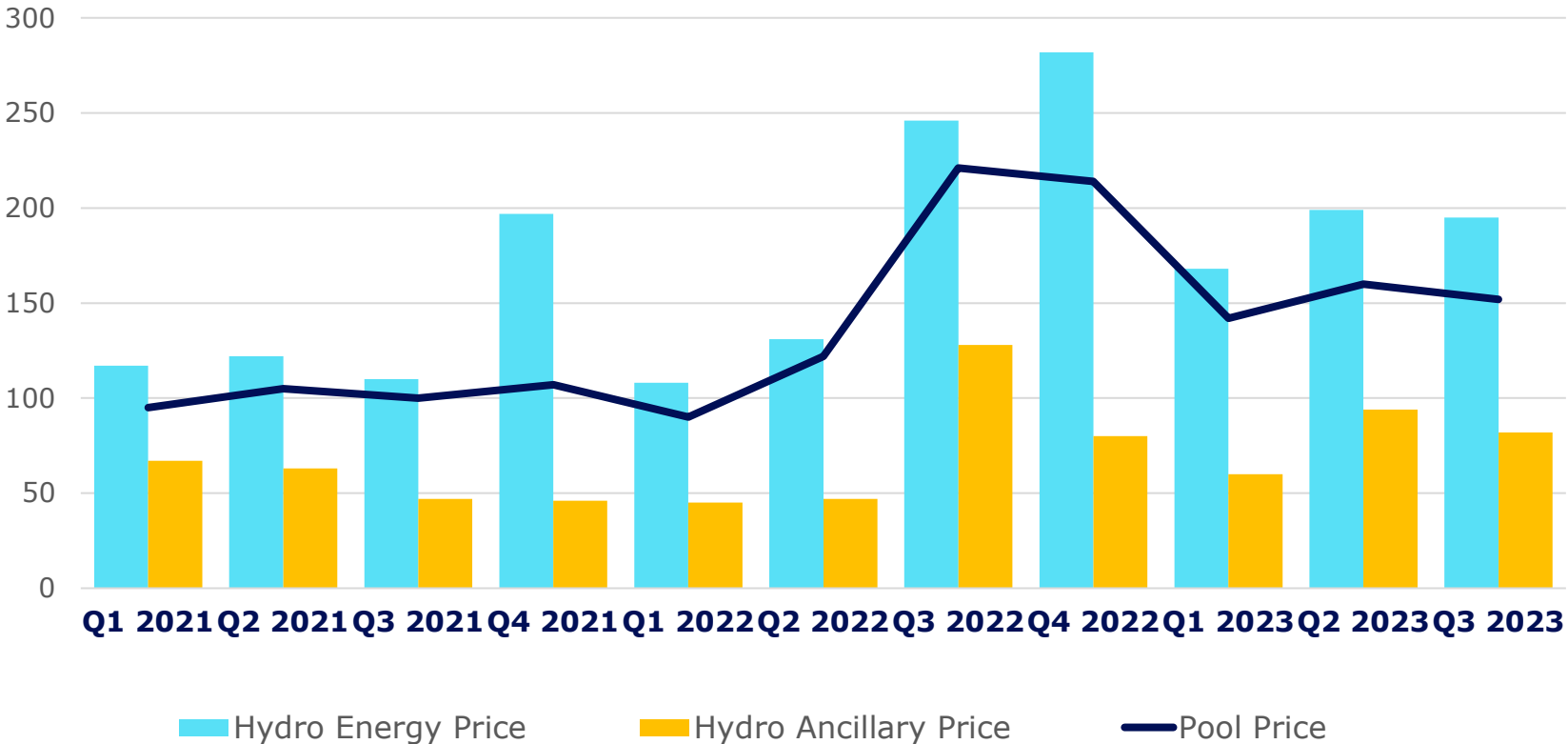


Brookfield conversion expected to be **below 30%** due to **strong performance**



Strong track record of realized pricing and optimization

Realized energy and ancillary prices (\$ per MWh)



50%

Average Realized Ancillary Price to Spot

126%

Average Realized Energy Price to Spot



Value of CTG portfolio



Operates in the **high-value part** of the offer curve – acting as **super-peakers**



Key resources needed for **market reliability**



Retirement and/or mothball decisions based on **economics**



Optimization and **market expertise** to ensure effective dispatch and portfolio efficiency

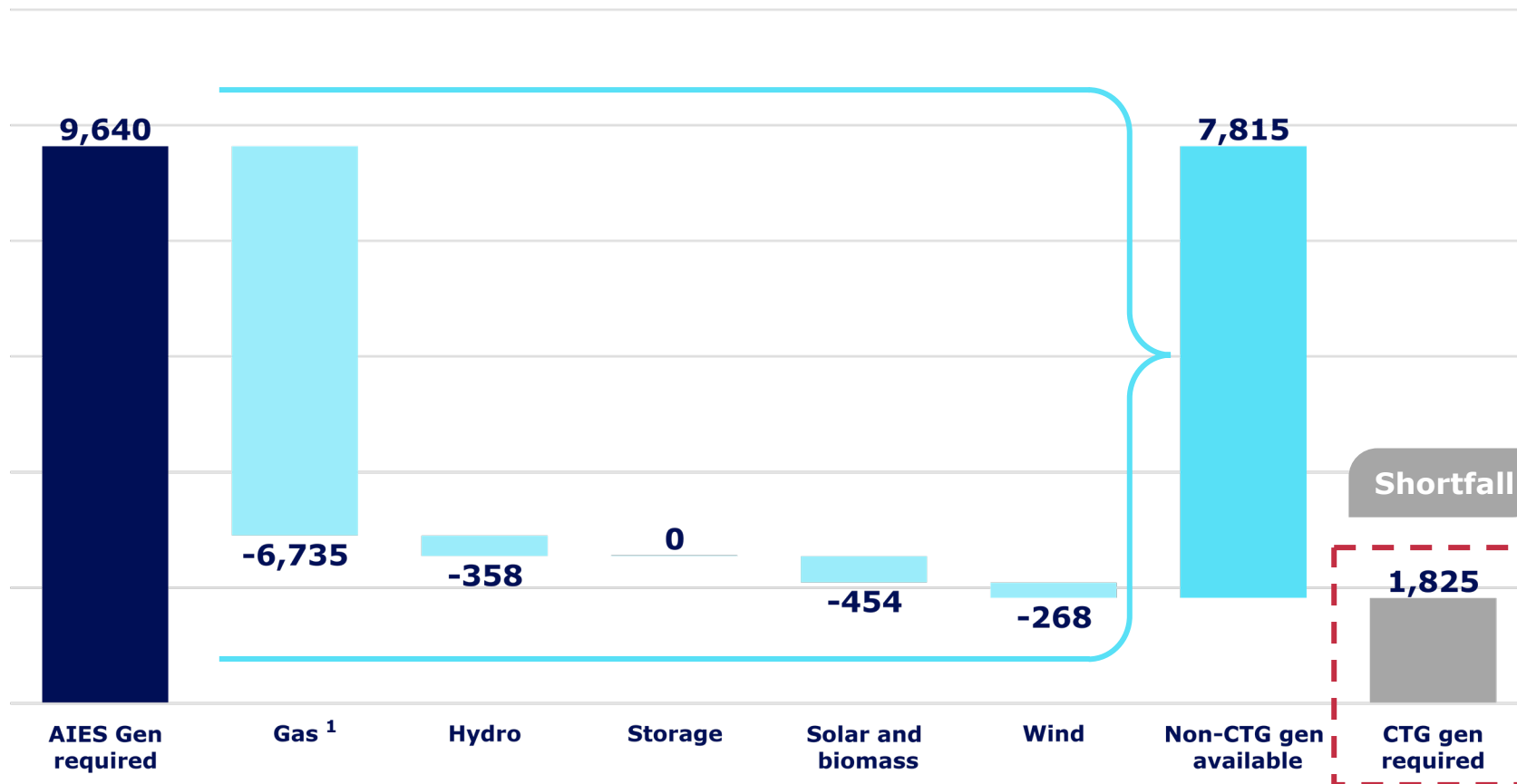


¹ CTG refers to coal-to-gas units.
² Heartland Generation assets. TransAlta owns 400 MW of Sheerness.



Thermal gas required when renewable resources are low

Estimated thermal gas generation required (MW)



Thermal gas capacity is required to meet Alberta demand and reliability

Province loses 5.5 GW of capacity on low renewable-resource days



Value of peaking portfolio



Peaking asset **value to increase** with intermittent generation



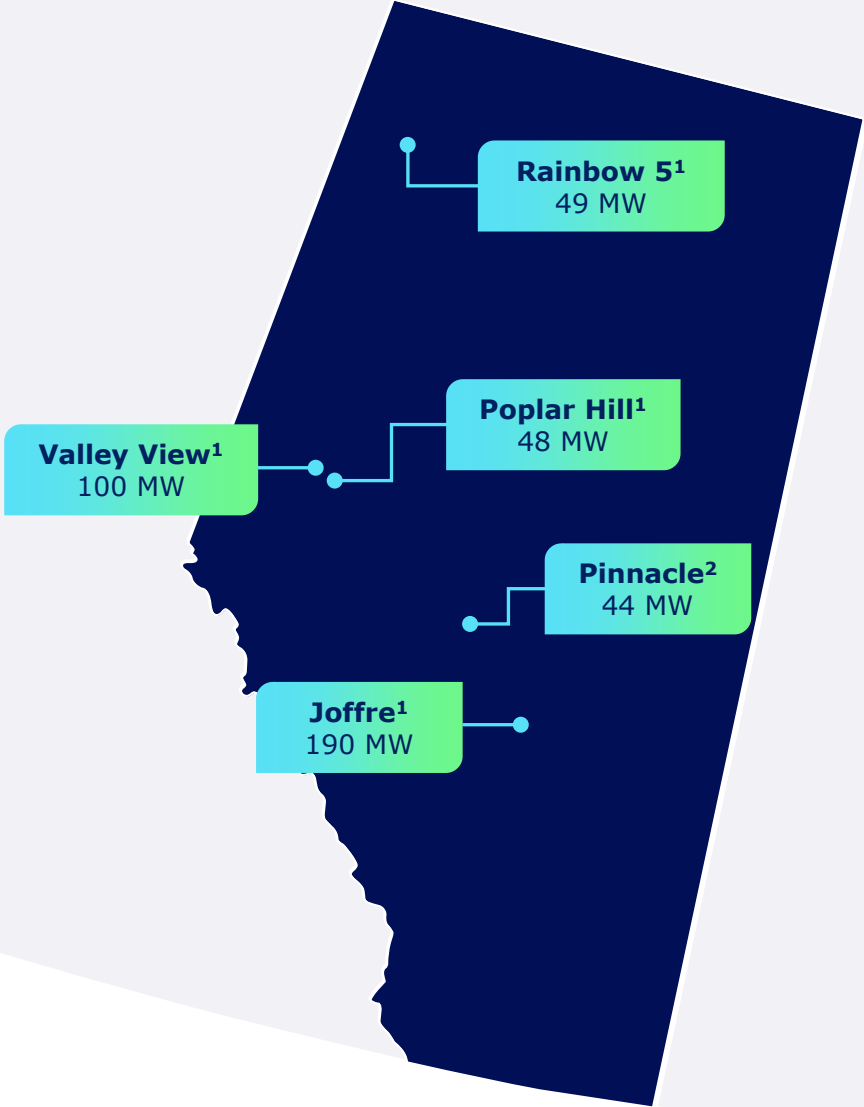
Fast-ramping **flexible units** and combined with our hydro, coal-to-gas and storage cover the entire dispatch curve



Best-in-class asset **optimization team**



Backstops **hydro** in the ancillary services market



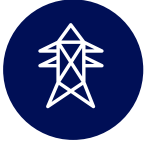
¹ Heartland Generation assets
² Assets in development pipeline.



Value of storage portfolio



Strategically-located units will store surplus generation for **discharge at peak periods**



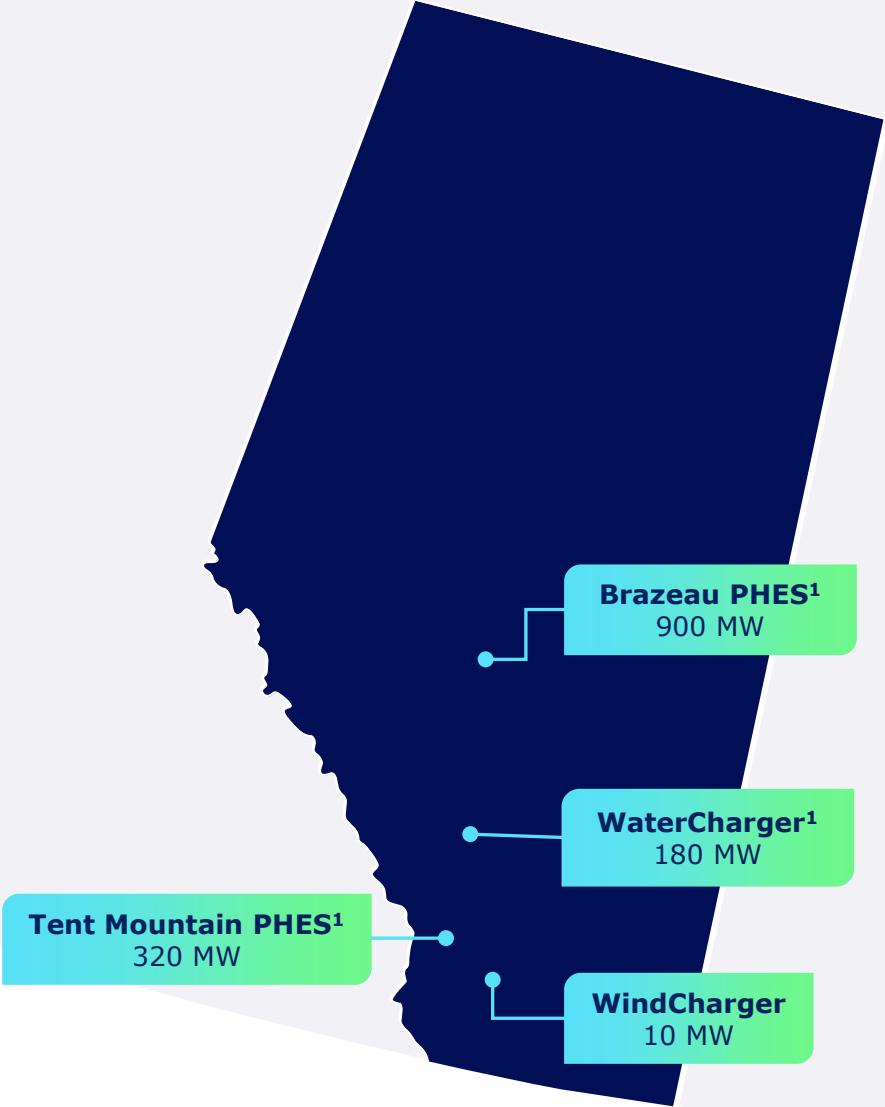
Extremely valuable in ancillary services and fast-frequency response markets



Volatile price environment expected



Opportunities for **pumped hydro**

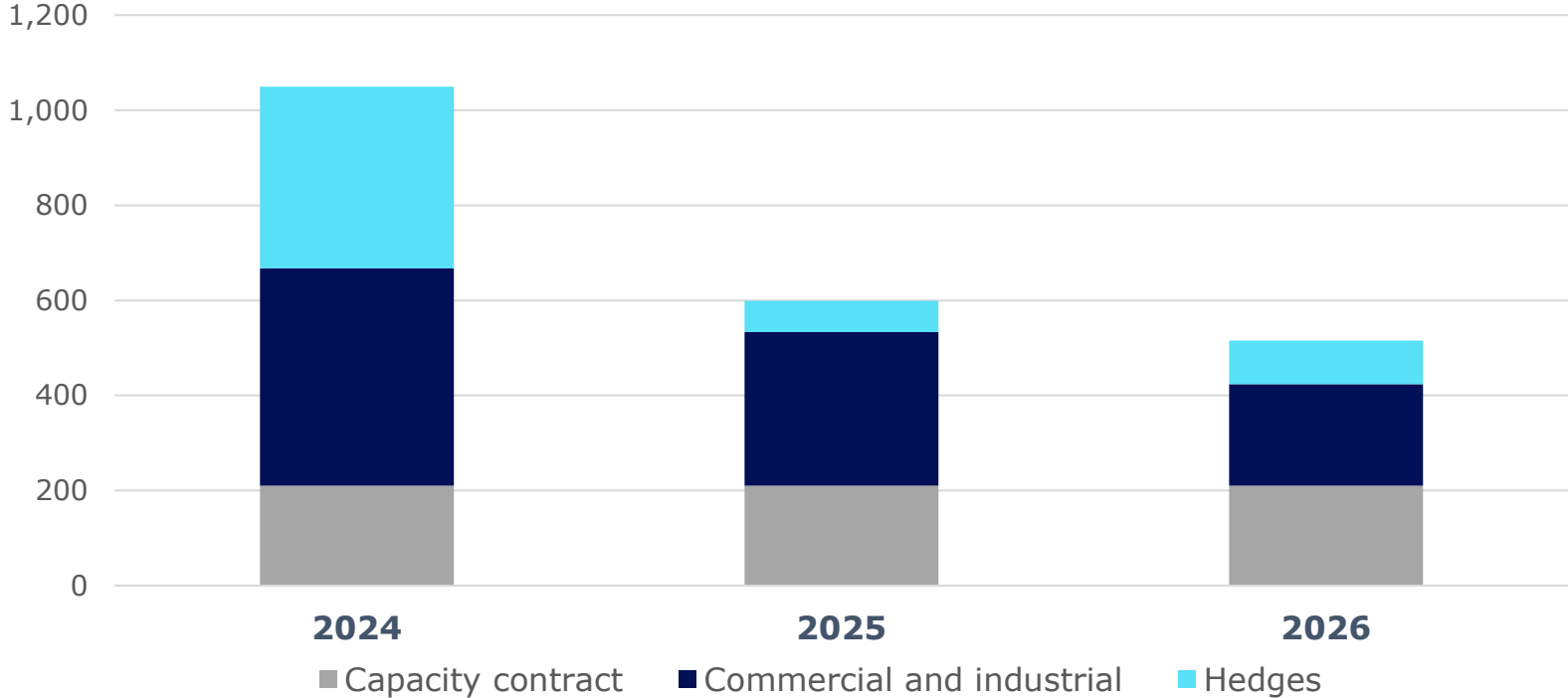


¹ Assets in development pipeline.



Hedging strategy aligned with market outlook

Power positions 2024-2026 (average MW per hour)



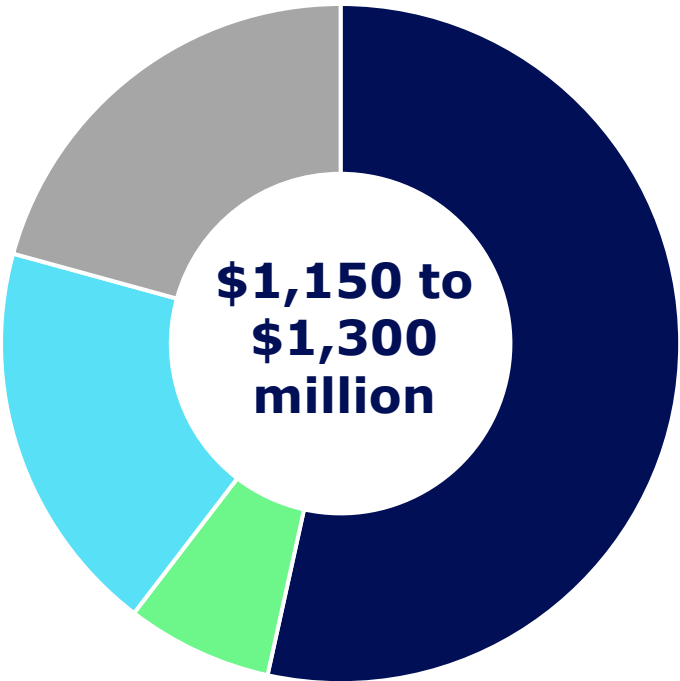
Expected 2024 production mostly hedged

+600 MW of sales achieved through 2025 hedging program



Alberta portfolio provides solid cash flows for 2024

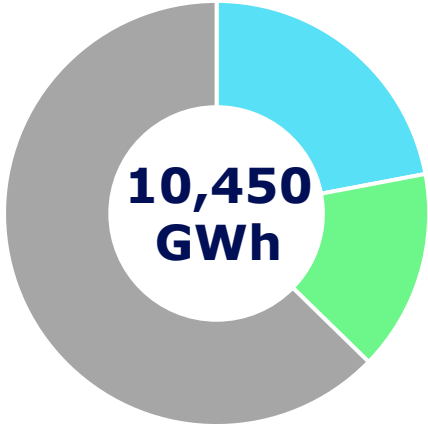
2024E adjusted EBITDA guidance



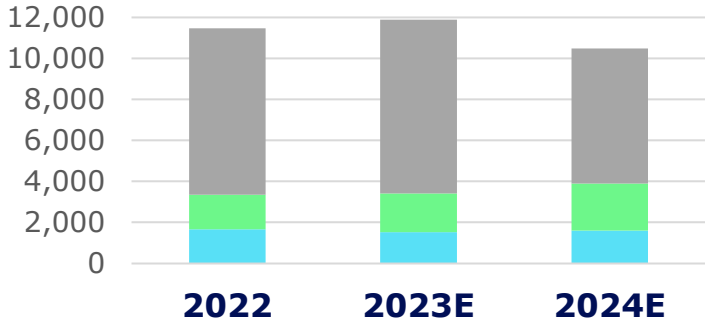
Legend:

- Alberta Hydro
- Alberta Gas
- Alberta Wind
- Rest of fleet

2024E Alberta fleet production (GWh)



2022-2024E fleet production (GWh)



Alberta portfolio expected to contribute \$500 to \$600 million or ~45% of 2024 adjusted EBITDA target

\$5 per MWh change in spot price is expected to have a \$20 million impact on adjusted EBITDA

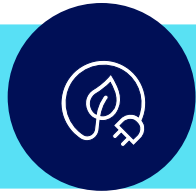


Growth execution

Horizon Hill, Oklahoma



Our investment focus to 2028



Renewables and storage

Expand core focus of **onshore wind**

Expand position in **solar**

Expand position in **storage** to meet future grid stability

Expand position in **hybrid solutions**

Optimize legacy Alberta **hydro** assets to **maximize** cash flow



Responsive and flexible generation for reliability

Optimize legacy **gas generation** to maximize cash flow and fund renewables and storage growth

Complete Heartland Generation acquisition and **integrate 1.8 GW**

Pursue **selectively higher-returning** natural gas generation where TransAlta can add tangible value



New technology

Monitor and assess **new technologies** such as storage, hydrogen, fusion, SMRs and carbon capture for deployment post-2025

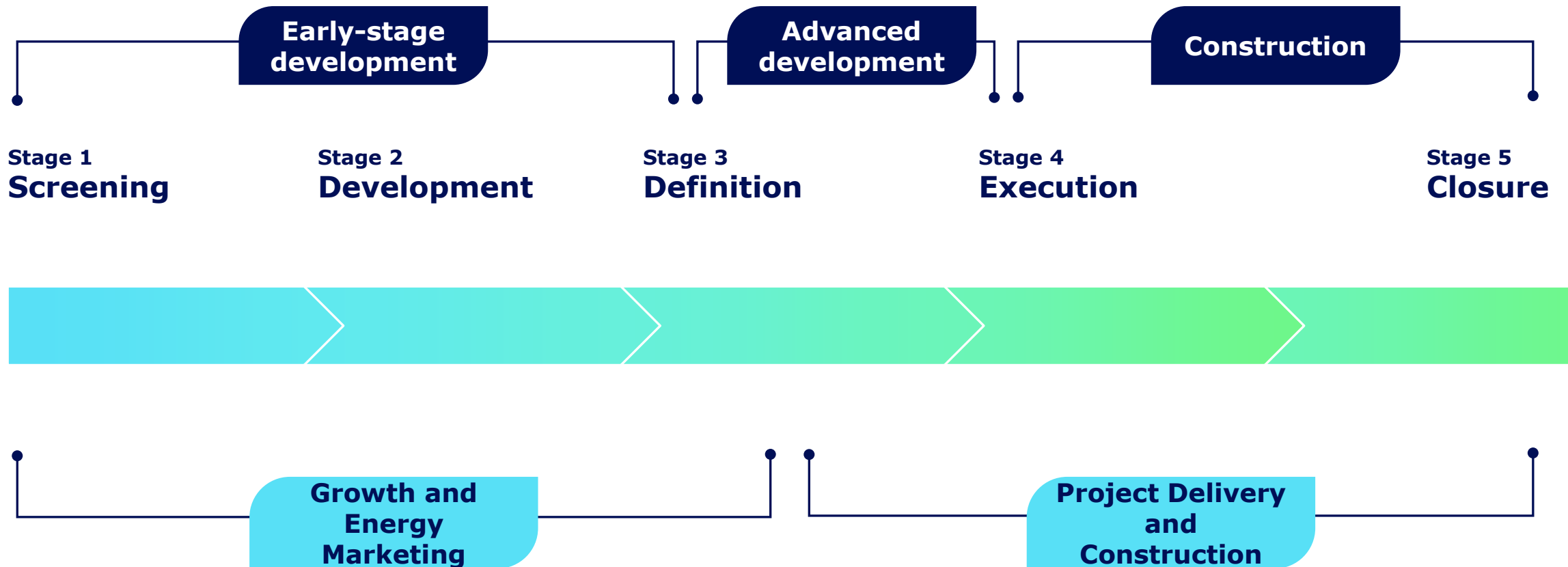


Our competitive advantage

-  Owner / operator business model
-  Optimization and trading excellence
-  Strong balance sheet
-  Extensive wind platform
-  Full lifecycle capabilities and risk control
-  Strong customer relationships
-  Demonstrated ESG results

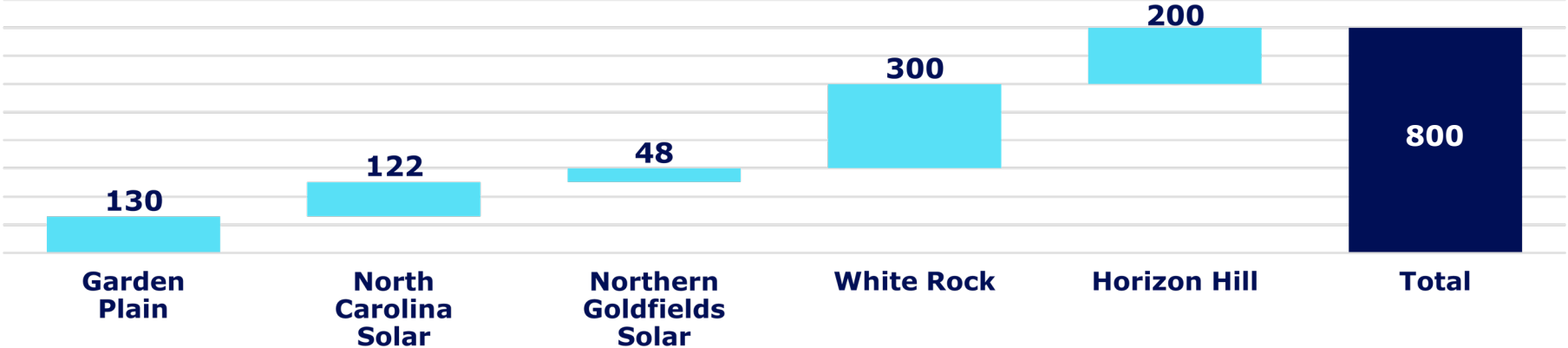


TransAlta project development lifecycle

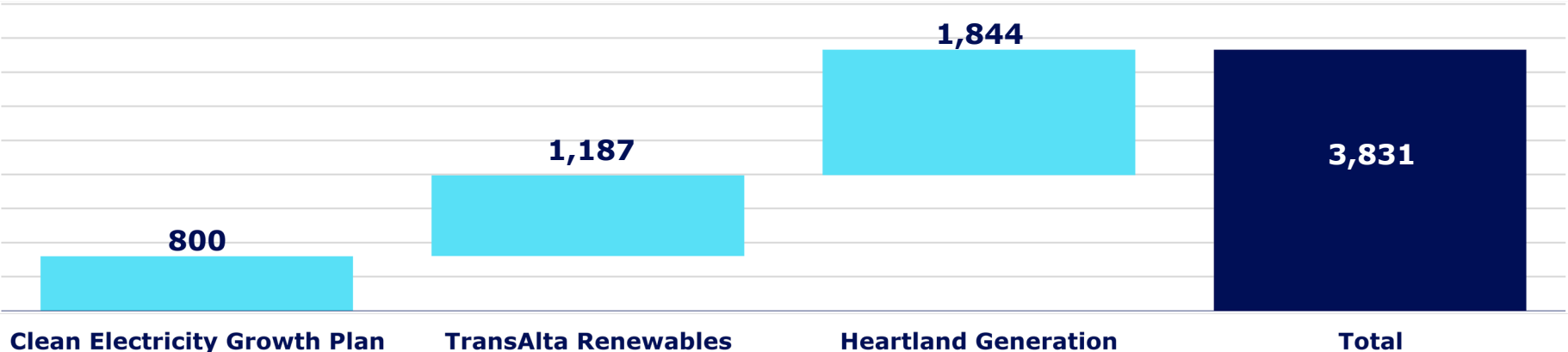


Growing our fleet

Clean Electricity Growth Plan progress (MW)



Clean Electricity Growth Plan and strategic transactions (MW)



800 MW

delivered since 2021



3 GW

through strategic transactions



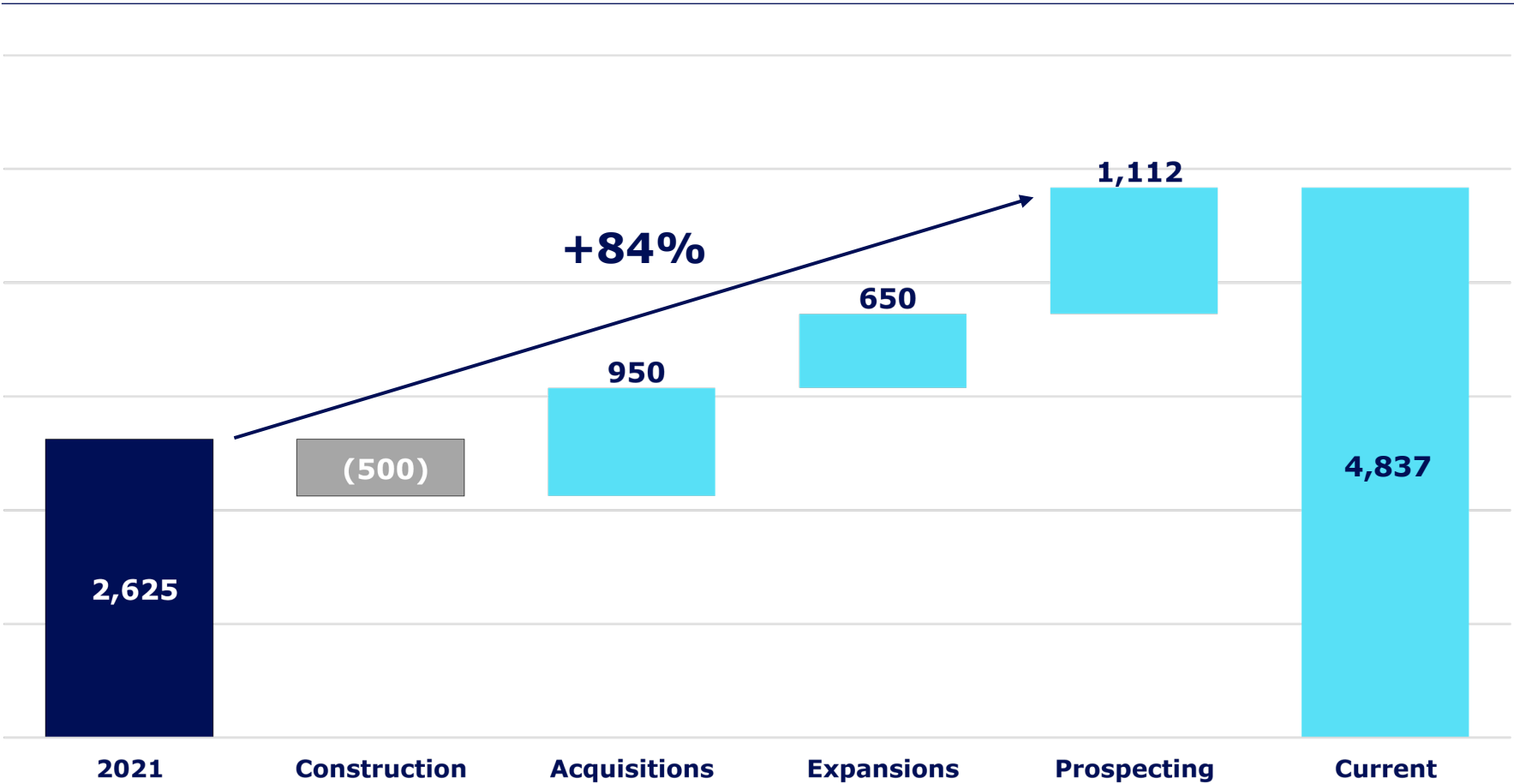
400 MW

in advanced stage



Successful pipeline growth

Development pipeline (MW)



Pipeline expanded by

>2.7 GW

Since 2021



On track to achieve

5 GW

pipeline

By 2025



New target to deliver

10 GW

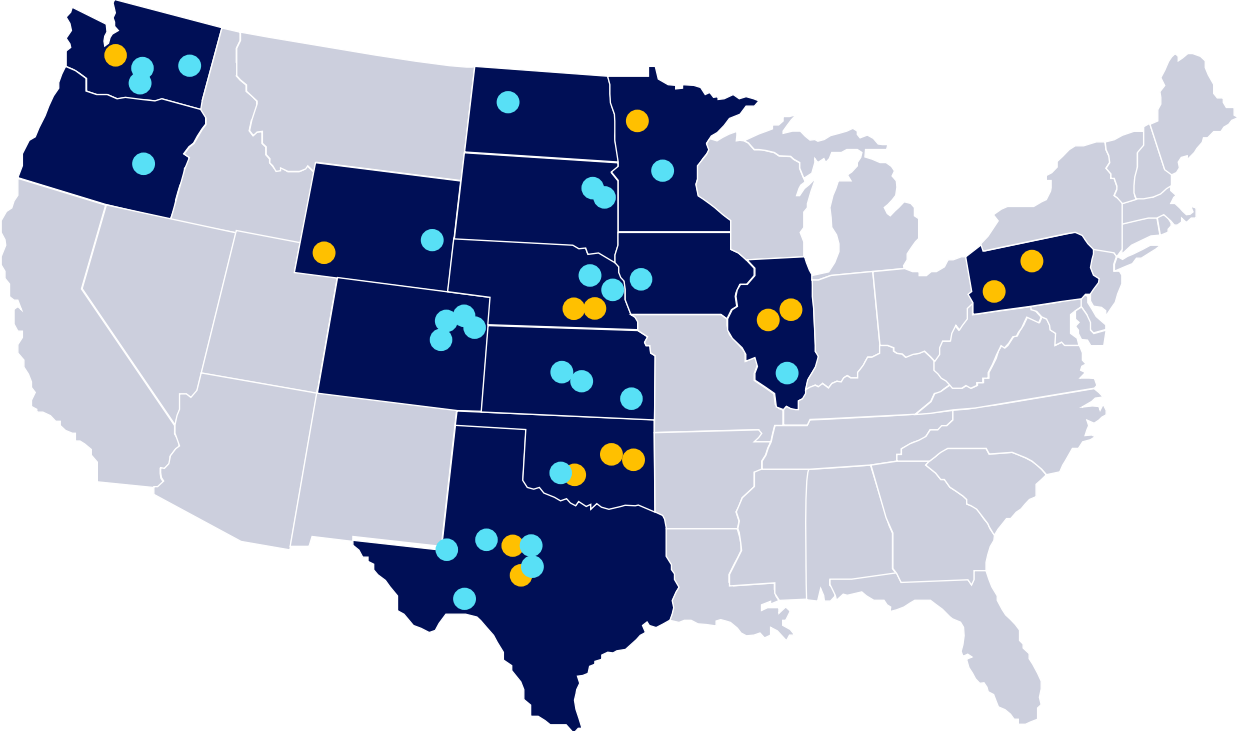
pipeline

By 2028



Development pipeline

United States



Legend:

- Early
- Prospects

Potential Development (excluding prospects):

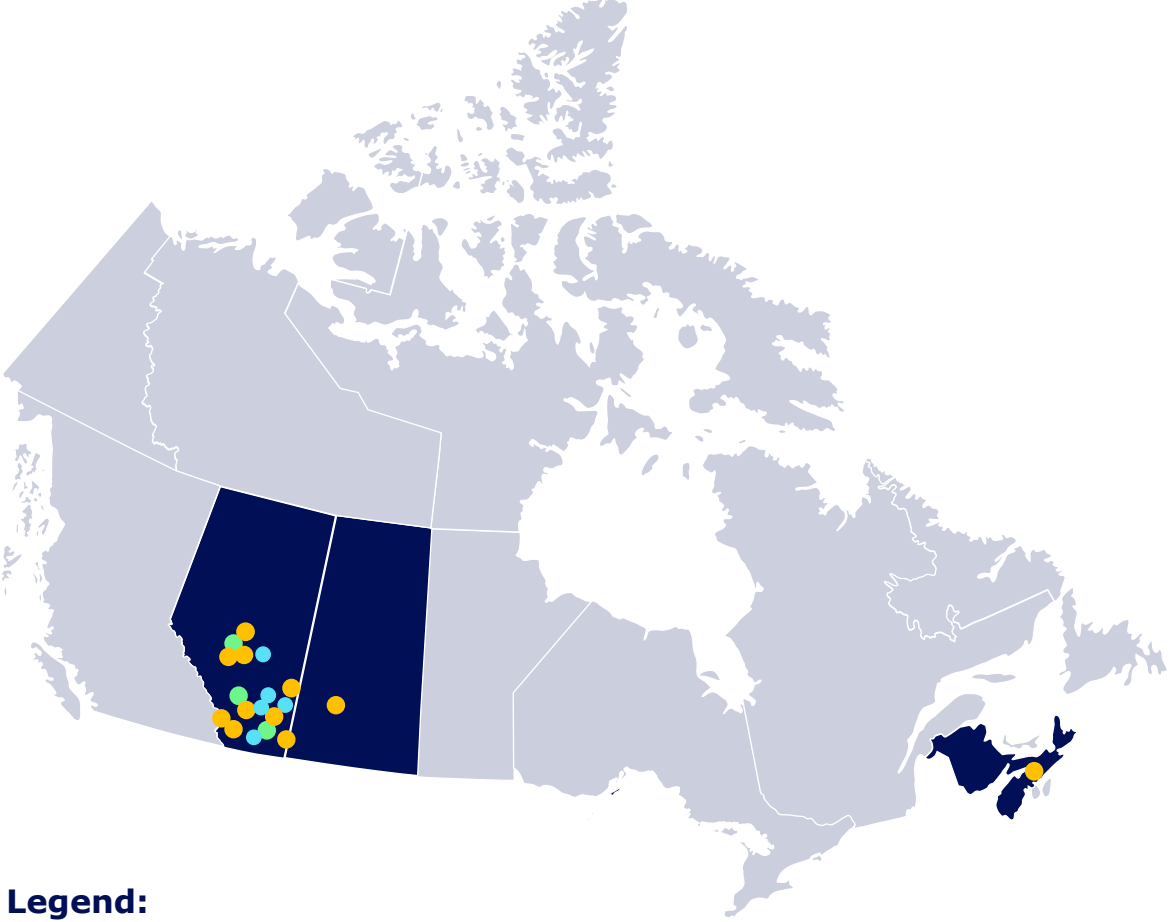
2,235 – 2,485 MW

Project	MW	Technology	State	Stage	FID
Monument Road	152	Wind	NE	●	2025
Swan Creek	126	Wind	NE	●	2025
Dos Rios	242	Wind	OK	●	2025
Old Town	185	Wind	IL	●	2025
Cotton Belle 1	96	Solar	TX	●	2025
Quick Draw	174	Wind	TX	●	2025
Square Top	195	Solar	OK	●	2026
Canadian River	250	Wind	OK	●	2026
Prairie Violet	130	Wind	IL	●	2026
Big Timber	50	Wind	PA	●	2026
Trapper Valley	225	Wind	WY	●	2027
Wild Waters	40	Wind	MN	●	2027
Coolspring	120	Wind	PA	●	2027
Centralia Site Redevelopment	250-500	Various	WA	●	TBD
Other US Prospects	>2000	Wind/Solar		●	2025+



Development pipeline

Canada



Legend:

- Advanced
- Early
- Prospects

Potential Development (excluding prospects):

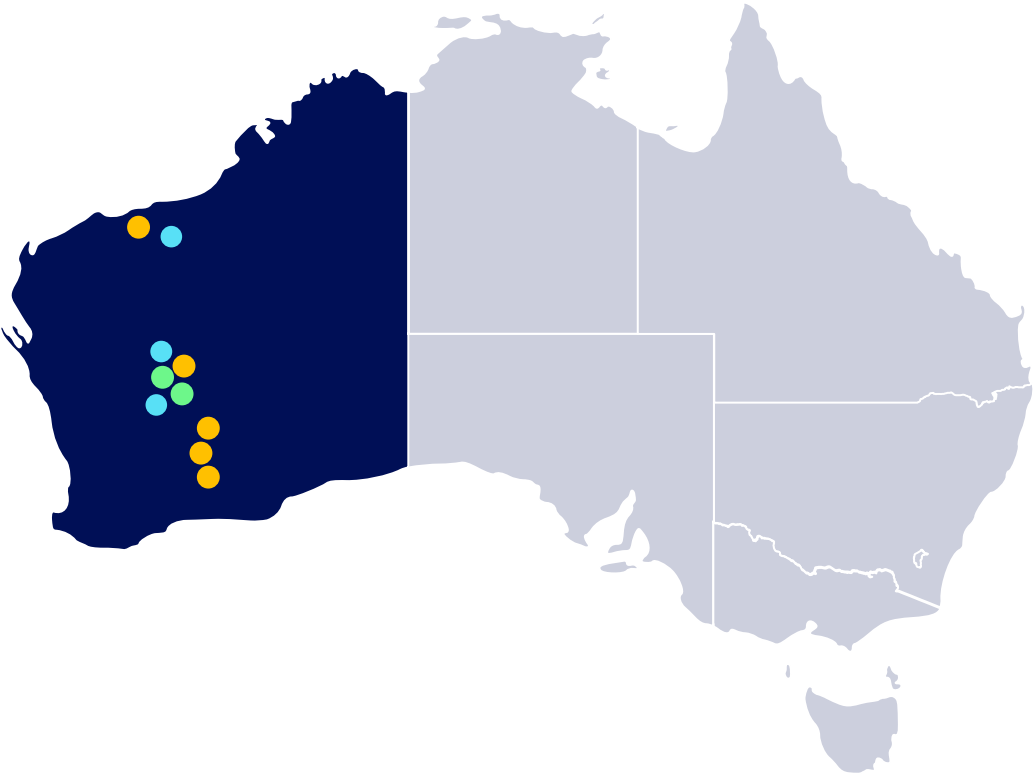
2,181 – 3,031 MW

Project	MW	Technology	Location	Stage	FID
Tempest	100	Wind	AB	●	2024
WaterCharger	180	Battery	AB	●	2024
Pinnacle 1 & 2	44	Gas	AB	●	2024
Riplinger	300	Wind	AB	●	2025
SunHills Solar	170	Solar	AB	●	2025
McNeil Solar	57	Solar	AB	●	2025
New Brunswick Power Battery	10	Battery	NB	●	2025
Tent Mountain	160	Pumped storage	AB	●	2025
Provost	170	Wind	AB	●	2026
Antelope Coulee	200	Wind	SK	●	2027
Red Rock	100	Wind	AB	●	2027
Willow Creek 1 & 2	140	Wind	AB	●	2027
Brazeau	300-900	Pumped storage	AB	●	TBD
Alberta Thermal Redevelopment	250-500	Various	AB	●	TBD
Alberta Cogen Prospects	400	Cogen	AB	●	2025
Alberta Wind Prospects	450	Wind	AB	●	2027+



Development pipeline

Australia



Legend:

- Advanced
- Early
- Prospects

Potential Development (excluding prospects):

421 MW

Project	MW	Technology	Location	Stage	FID
Mt. Keith West Network Upgrade	32 ¹	Transmission	Mt Keith	●	2023
Mt. Keith Capacity Additions	94	Gas	Mt Keith	●	2023
Mt. Keith Wind	100	Wind	Mt Keith	●	2024
Boodarie Solar	50	Solar	Port Hedland	●	2024
Southern Cross Energy	120	Solar/Wind	Kalgoorlie	●	TBD
Transmission Expansion Projects	25 ¹	Transmission	Various	●	2023+
Ridley Solar	50	Solar	Pilbara	●	2024
Other Australian Prospects	150	Various	Various	●	2024+

1 Transmission projects converted to equivalent MW using \$2,000/kW multiple



WaterCharger

Largest battery installation in Alberta, providing energy optimization and key reliability service to the Alberta system

First Nation equity partnership

Funding secured through Canada's Smart Renewables and Electrification Pathways Program

Alberta Utilities Commission permits in place

Location Ghost Hydro Facility

Technology Battery Storage

Chemistry Lithium-Ion Phosphate

Size 180 MW, 1-hour

COD H1 2025

EBITDA +\$20 Million



Pinnacle

Fast dispatch gas-fired peaking facility, will respond to periods of high demand

Acquired gas reciprocating engines at significant discount

Leverages existing infrastructure at Keephills site

Positioning for a more volatile energy market

Location

Keephills

Fuel

Natural Gas

Contract Type

Merchant

Size

44 MW

COD

H2 2025

EBITDA

\$14 - \$16 Million



Mt Keith Expansion

**Efficient gas-fired
generating capacity to meet
customer's growing
demand and to enable
increased renewable
generation**

**Developing under the
BHP Nickel West PPA**

**Adding synchronous
condenser capability to
improve grid stability**

**Delivers annual
emissions reduction of
~19%**

Location

Mount Keith

Fuel

Gas

Contract Type

13-year PPA

Size

94 MW

COD

H2 2025

EBITDA

\$36 – \$40 Million



Hancock Prospecting Joint Development Agreement

Strategic development partnership to provide reliable supply to Hancock Prospecting

HANCOCK
ENERGY

+

transalta

Hancock Prospecting is a large and diversified Australian company and fourth largest iron ore producer in the country

Partnership builds on expertise in reliable supply to remote operations in Western Australia

Hancock and TransAlta together define the supply need and the optimal behind-the-fence solution which TransAlta will build, own and operate

Hancock will have an option to co-invest with TransAlta maintaining the role as the managing partner and operator



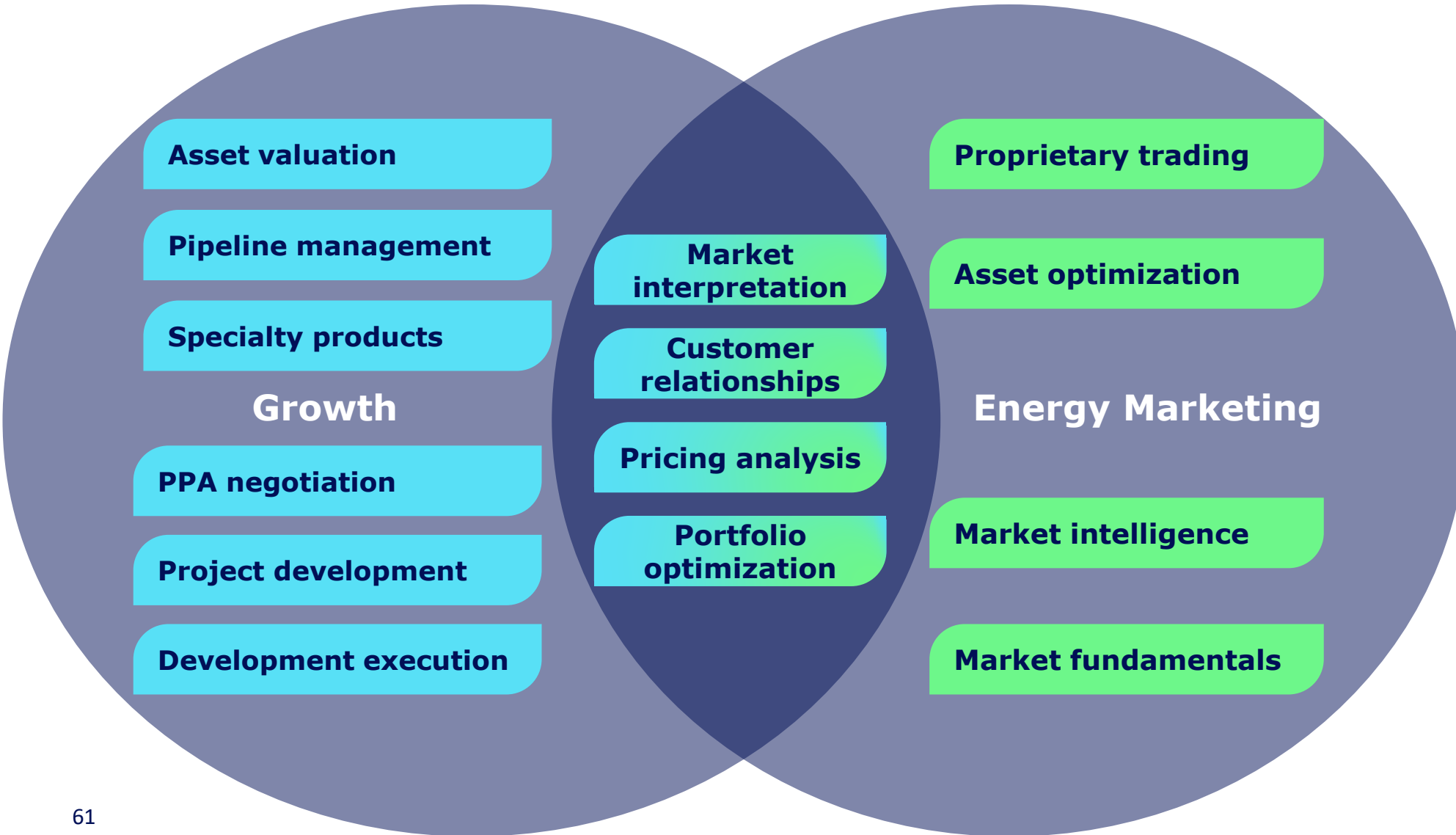


Enhancing Value with Energy Marketing

Le Nordias, Quebec



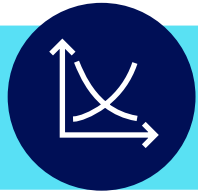
Aligning Growth and Energy Marketing



Aligned global team committed to accelerating value delivery of **high-quality portfolio** through cross-team enablement



Energy marketing fulfils key roles



Asset optimization

Manages **optimization** and **commodity risk** for Ontario and US assets



Asset growth

Provides **market insights** to the growth and M&A teams



Segment profitability

Track record of generating **strong segment revenues**

Energy marketing capabilities

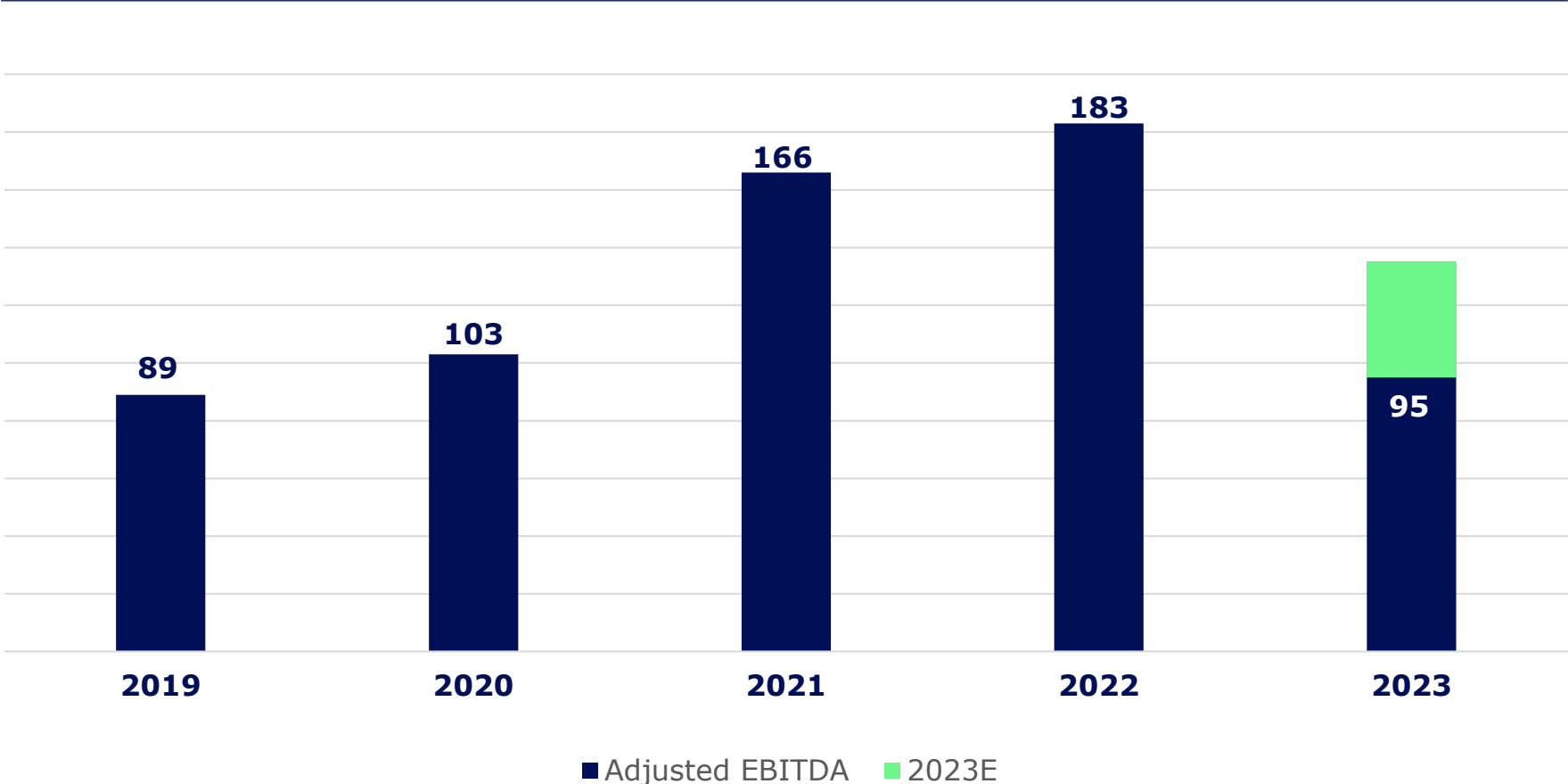
	Electricity	Natural Gas	Emissions	
Markets	NWPP, CAISO, SPP, SWPP, IESO, ISO-NE, NYISO, PJM, MISO, ERCOT	Canada and US	Canada and US	
Products	Execution for TransAlta and third-party assets	✓	✓	
	Origination and structured products	✓	✓	
	Real-time trading	✓	✓	-
	Term trading	✓	✓	✓
	Congestion trading	✓	-	-
	Transmission / transportation	✓	✓	-
	Options	✓	✓	✓

Diverse product knowledge base provides key insights into North American Markets



EBITDA contribution of over \$630 million since 2019

EBITDA contribution (\$ million)



Increasing volatility across North American markets

Positioned to deliver value in all market conditions

Tightly managed risk profile

\$135 million 4-year average EBITDA



Financial strategy and plan

Brazeau, Alberta



Investment return targets

- ✓ Disciplined capital allocation to enhance shareholder value
- ✓ Project returns are assessed based on the unique characteristics of each project

Targeting returns at 10% or higher

Required return evaluation criteria

Investment size

Contractedness

Customer quality

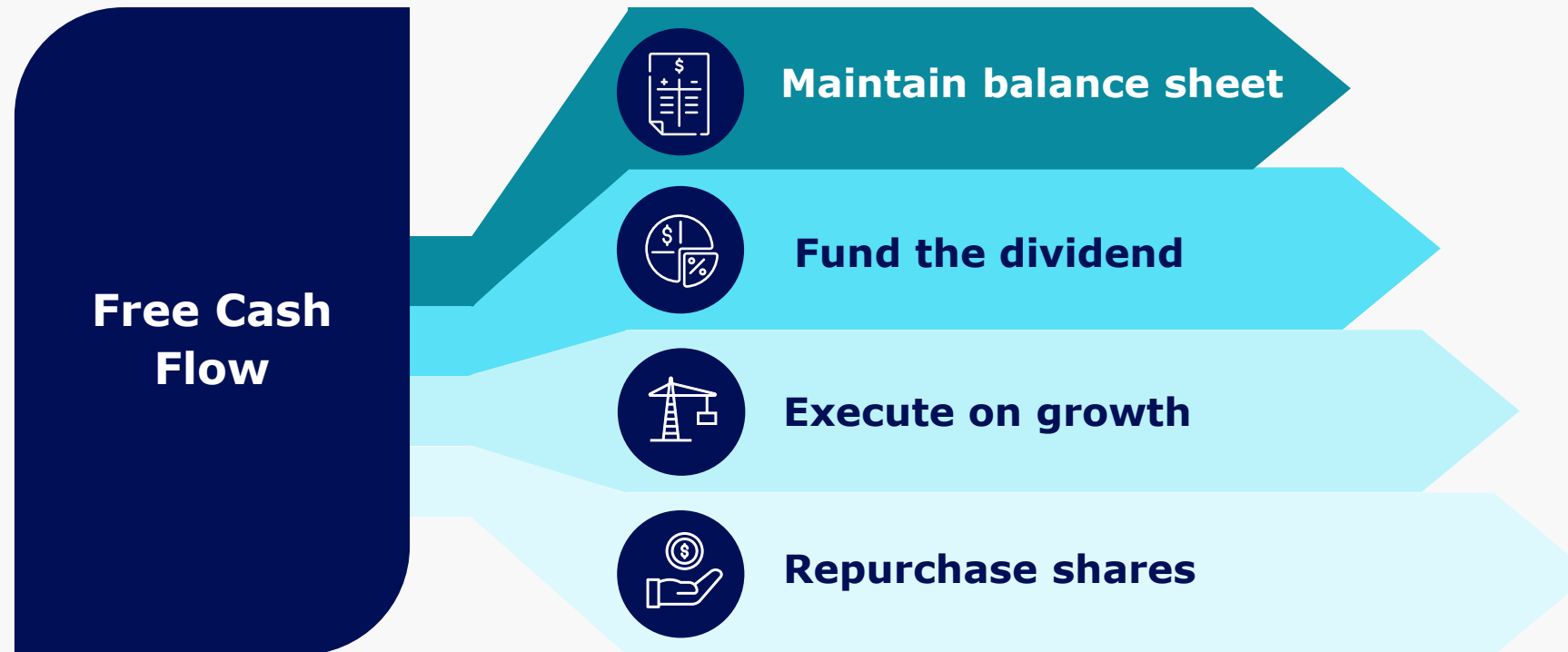
Future business potential

Construction risk

Ability to finance



Simplified capital allocation



Since 2021

Maintained **strong credit metrics**

Returned **\$160 million** in dividends

Dividend increased by **10%** annually

Deployed **\$1.4 billion** towards the Clean Electricity Growth Plan

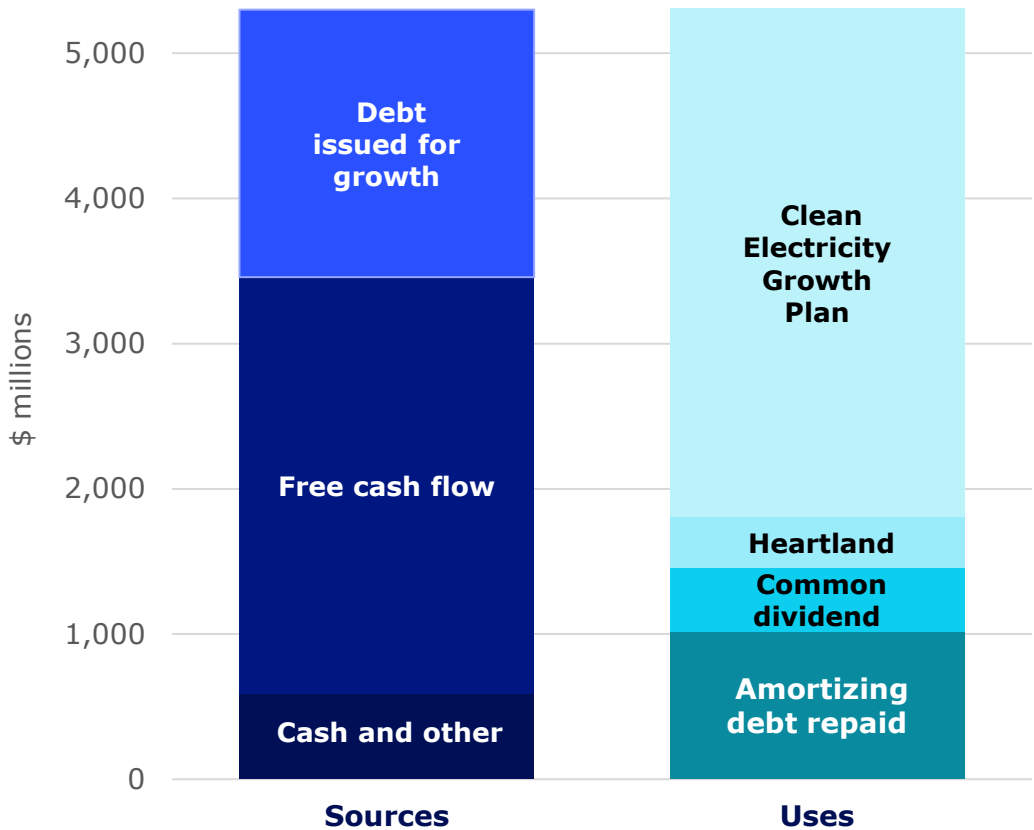
Invested **\$1.4 billion** to acquire TransAlta Renewables

Returned **\$125 million** through share buybacks

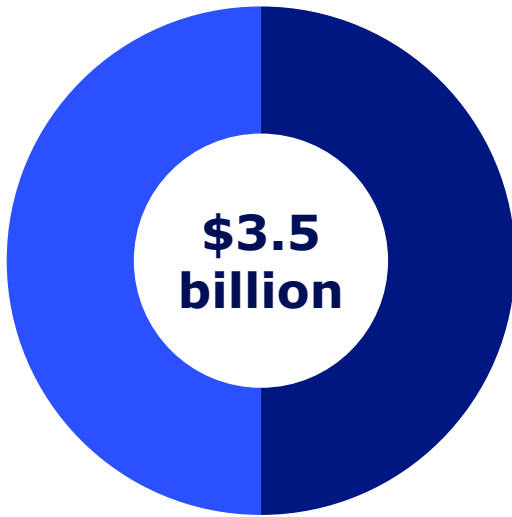


Growth plan is well funded

Consolidated sources and uses 2024-2028



Growth funding 2024-2028



Legend:

- Free cash flow
- Debt issued for growth

Operating cash flow will fund equity requirements for growth program



Prudent capital management



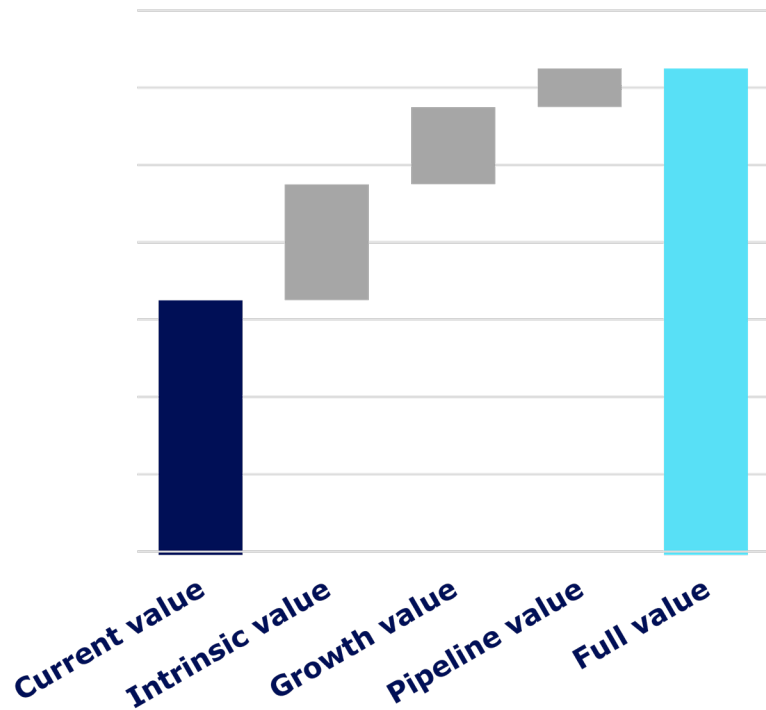
Share Valuation



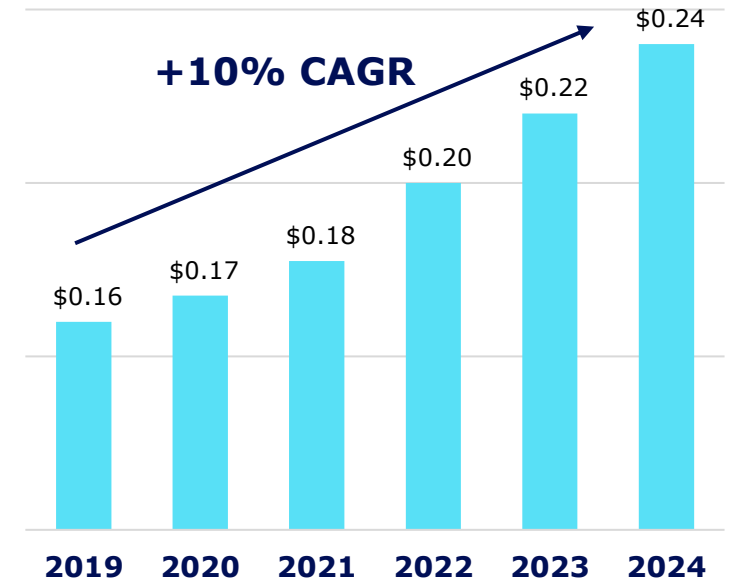
Credit ratings



Dividend



S&P	BB+
Moody's	Ba1
DBRS	BBB (low)
Debt/EBITDA target	3.0 - 4.0x



Our Value Proposition



Diversified and resilient fleet



Clean electricity leader with ESG focus



4.8+ GW growth pipeline



Strong financial position





Questions & Answers

Visit us at: www.transalta.com

Investor_relations@transalta.com

