transalta™

Investor Presentation

March 2025

Forward-looking statements and non-IFRS measures

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 Private Securities Litigation Reform Act of 1995 (collectively referred to herein as "forward-looking statements"). Forward-looking statements are not facts, but only predictions and generally can be identified by the use of statements that include phrases such as "may", "will", "can", "could", "would", "shall", "believe", "expect", "estimate", "anticipate", "intend", "plan", "forecast", "foresee", "potential", "enable", "continue" or other comparable terminology. These statements are not guarantees of our future performance, events or results and are subject to risks, uncertainties and other important factors that could cause our actual performance, events or results to be materially different from those set out in or implied by the forward-looking statements. In particular, this presentation contains forward-looking statements about the following, among other things: the strategic objectives of the Company and that the execution of the Company's strategy will realize value for shareholders; our capital allocation and financing strategy; our sustainability goals and targets, including those in our 2024 Sustainability Report; our 2025 Outlook; our financial and operational performance, including our hedge position; optimizing and diversifying our existing assets; the increasingly contracted nature of our fleet; expectations about strategies for growth and expansion, including opportunities for Centralia redevelopment, and data centre opportunities; expected costs and schedules for planned projects; expected regulatory processes and outcomes, including in relation to the Alberta restructured energy market; the power generation industry and the supply and demand of electricity; the cyclicality of our business; expected outcomes with respect to legal proceedings; the expected impact of future tax and accounting changes; and expected industry, market and economic conditions.

The forward-looking statements contained in this presentation are based on many assumptions including, but not limited to, the following: no significant changes to applicable laws and regulations; no unexpected delays in obtaining required regulatory approvals; no material adverse impacts to investment and credit markets; no significant changes to power price and hedging assumptions; no significant changes to gas commodity price assumptions and transport costs; no significant changes to interest rates; no significant changes to the demand and growth of renewables generation; no significant changes to the integrity and reliability of our facilities; no significant changes to the Company's debt and credit ratings; no unforeseen changes to economic and market conditions; and no significant event occurring outside the ordinary course of business.

These assumptions are based on information currently available to TransAlta, including information obtained from third-party sources. Actual results may differ materially from those predicted. 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 power prices; changes in supply and demand for electricity; our ability to contract our electricity generation for prices that will provide expected returns; our ability to replace contracts as they expire; risks associated with development projects and acquisitions; any difficulty raising needed capital in the future on reasonable terms or at all; our ability to achieve our targets relating to ESG; long-term commitments on gas transportation capacity that may not be fully utilized over time; changes to the legislative, regulatory and political environments; environmental requirements and changes in, or liabilities under, these requirements; operational risks involving our facilities, including unplanned outages and equipment failure; disruptions in the transmission and distribution of electricity; reductions in production; impairments and/or writedowns 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; reduced labour availability and ability to continue to staff our operations and facilities; disruptions to our supply chains; climate-change related risks; reductions to our generating units' relative efficiency or capacity factors; general economic risks, including deterioration of equity and debt markets, increasing interest rates or rising inflation; general domestic and international economic and political developments, including potential trade tariffs; industry risk and competition; counterparty credit risk; inadequacy or unavailability of insurance coverage; increases in the Company's income taxes and any risk of reassessments; 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 "Governance and Risk Management" in the MD&A. Readers are urged to consider these factors carefully when evaluating the forward-looking statements and are cautioned not to place undue reliance on them. The forward-looking statements included in this presentation 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. The purpose of the financial outlooks contained herein is 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.

Certain financial information contained in this presentation, including Adjusted EBITDA, Annual Average EBITDA, Free Cash Flow (“FCF”), FCF per share do not have standardized meanings as prescribed by International Financial Reporting Standards (“IFRS”) and therefore may not be comparable to similar measures presented by other entities. The most directly comparable measures presented in the financial statements are: (i) in respect of Adjusted EBITDA and Annual Average EBITDA, earnings before income taxes; and (ii) FCF and FCF per share, Cash Flow From Operating. 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 “Key Non-IFRS Financial Ratios” sections of MD&A, 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 that such outlooks 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.

TransAlta at a glance

$8.5 billion

Enterprise value[1]

Strong balance sheet and capital discipline

114 years

Generation experience

Foundation of our focused strategy

$4.2 billion

Market capitalization[1]

Listed on the TSX and NYSE

1,450

Employees

Central to value creation

~9,000 MW

Diversified portfolio

88 generating facilities in Canada, United States and Australia

~$500 million

2025 expected **free cash flow[2]**

~50%

Adjusted EBITDA[2] attributable to renewables

Hydro and Wind and Solar fleet are core operations

[1] Enterprise value and market capitalization calculated as of March 13, 2025.
[2]Adjusted EBITDA and FCF are non-IFRS measures, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information..

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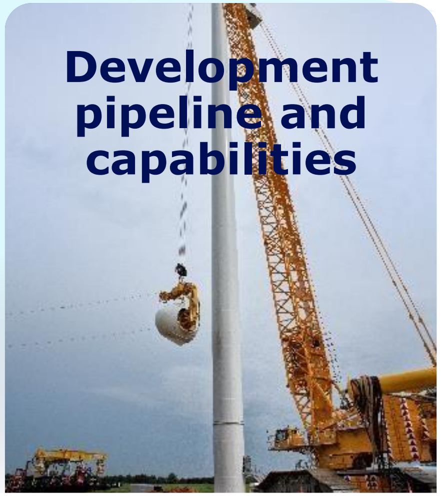
Hydro

Gas

Wind and solar

Energy marketing

Development pipeline and capabilities



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

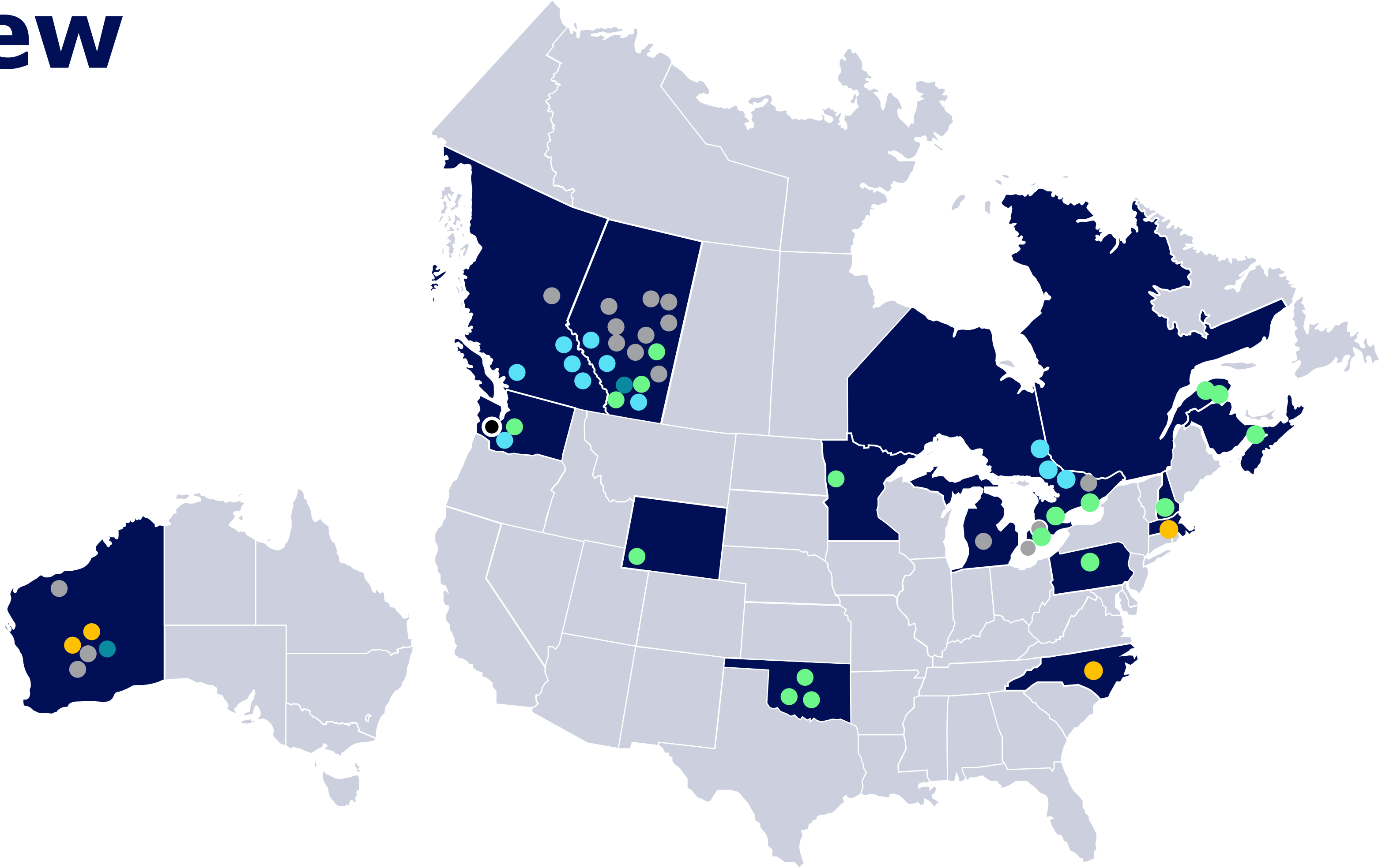
Fleet Overview

Wind, Solar and Storage
36 Facilities

Hydro
25 Facilities

Natural Gas
26 Facilities

Coal
1 Facility

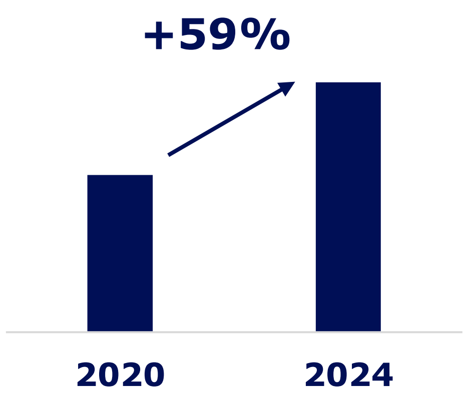


Technology:

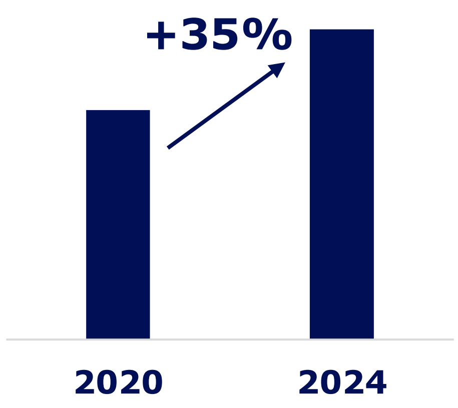
Wind · Solar · Hydro · Battery · Natural Gas · Coal

Strategic position strengthened since 2020

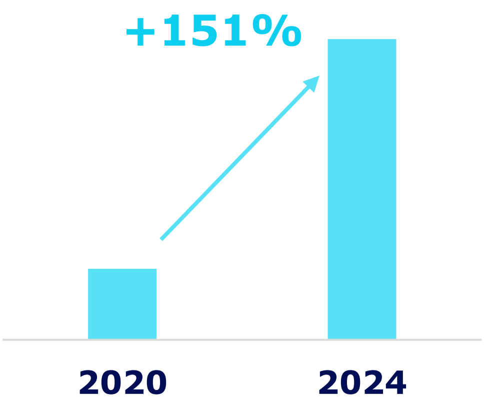
Free Cash Flow[1]



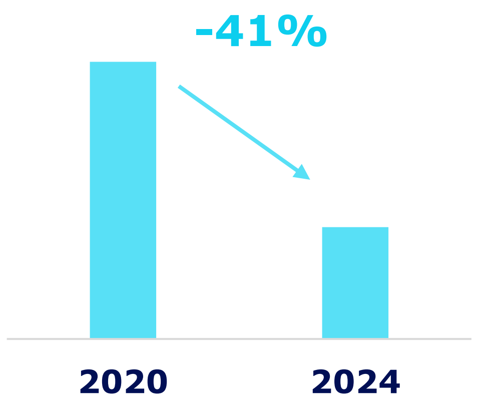
Adjusted EBITDA[1]



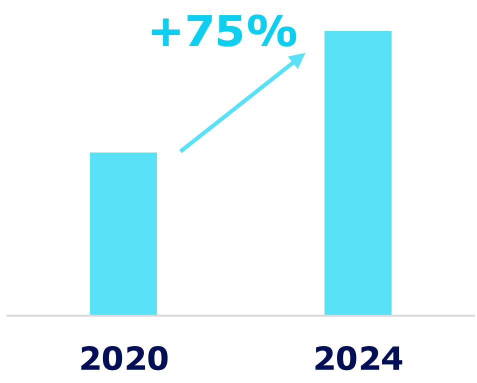
Contractedness[1,2]
(MW)



Emissions reductions[3]
(Millions tonnes CO_2)



Renewable capacity[1,2]
(MW)



Free Cash Flow[1] increased by

$210 Million

Adjusted EBITDA[1] increased by

$330 Million

Contractedness[1,2] increased by

2.8 GW

Emissions reduced by

6.8 million tonnes CO_2

Increased renewable capacity[1,2] by

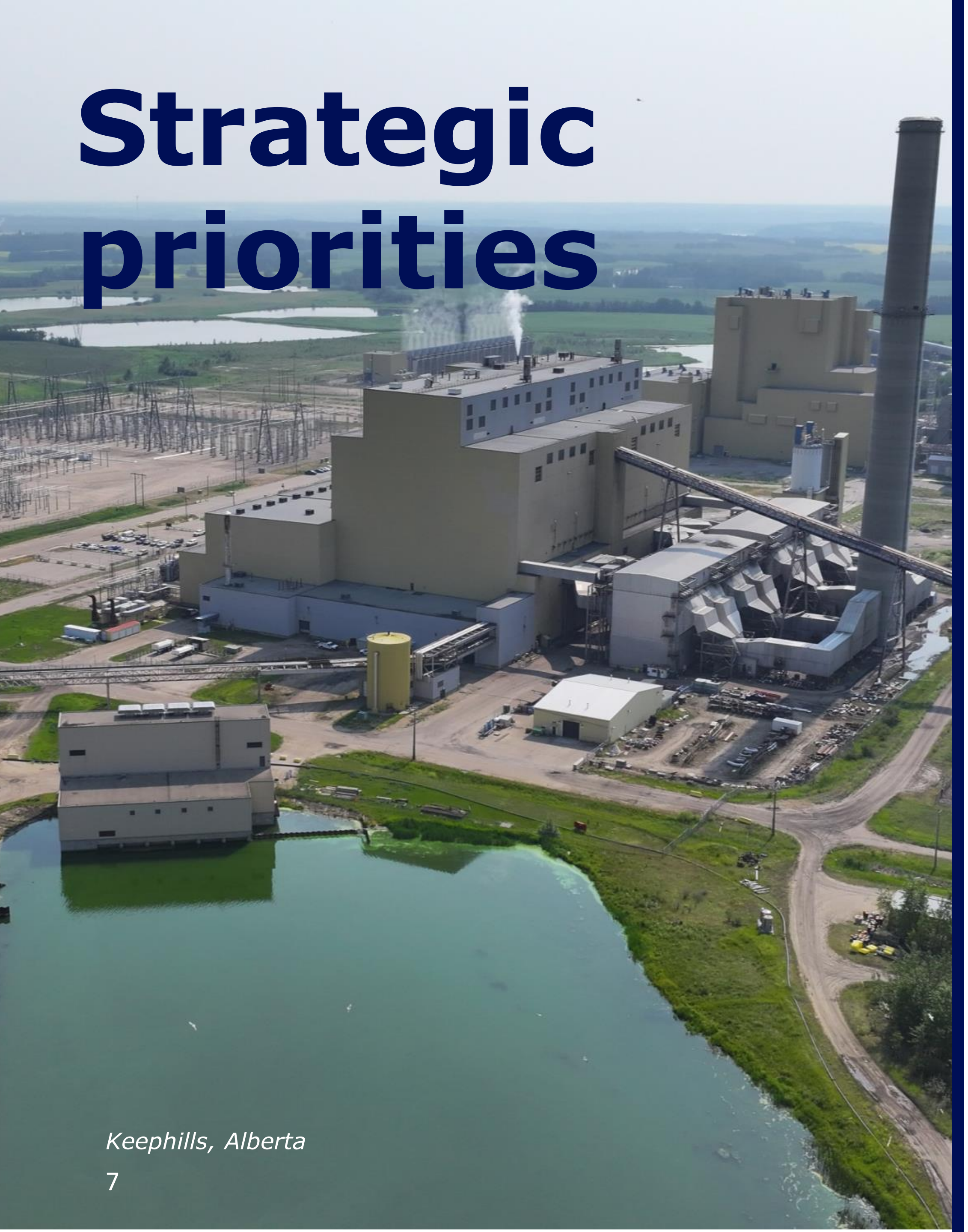
1.5 GW

[1] Adjusted EBITDA and FCF are non-IFRS measures, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.

[2] 2020 Contractedness and Renewable Capacity have been adjusted to exclude TransAlta's non-controlling interest in TransAlta Renewables.

[3] Emission reductions include Scope 1 and 2 greenhouse gas emissions but do not include emissions from assets acquired from Heartland Generation on Dec. 4, 2024.

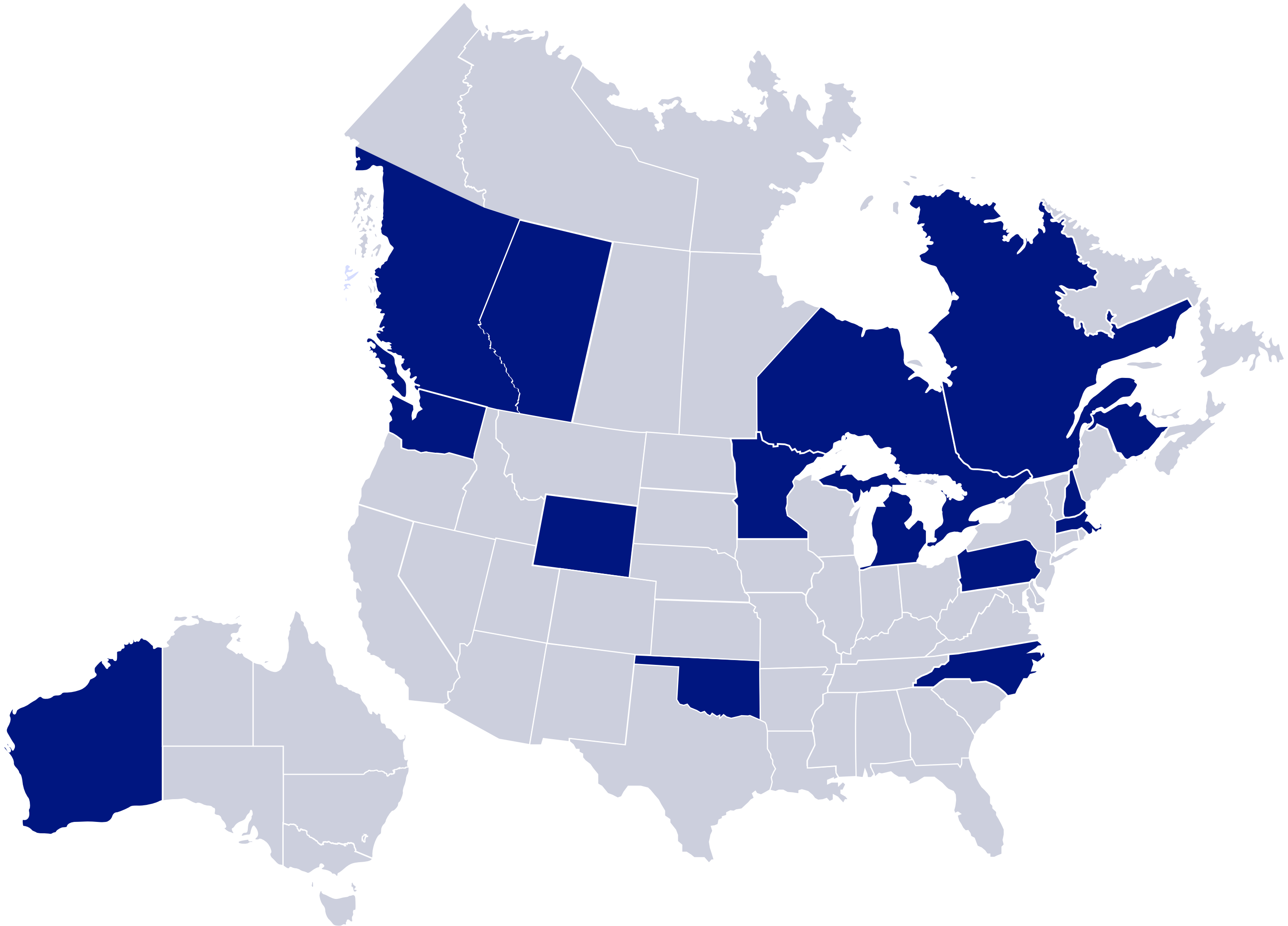
Strategic priorities



Keephills, Alberta

1. Optimize Alberta portfolio
2. Execute Growth Plan
3. Realize the value of legacy generating facilities
4. Maintain financial strength and capital discipline
5. Define next generation of power solutions
6. Lead in ESG and market policy development

Portfolio is highly hedged and contracted in 2025



67%

Of Alberta fleet revenue contracted or hedged

73%

Of US fleet revenue contracted or hedged

86%

Of Canadian fleet[1] revenue contracted

100%

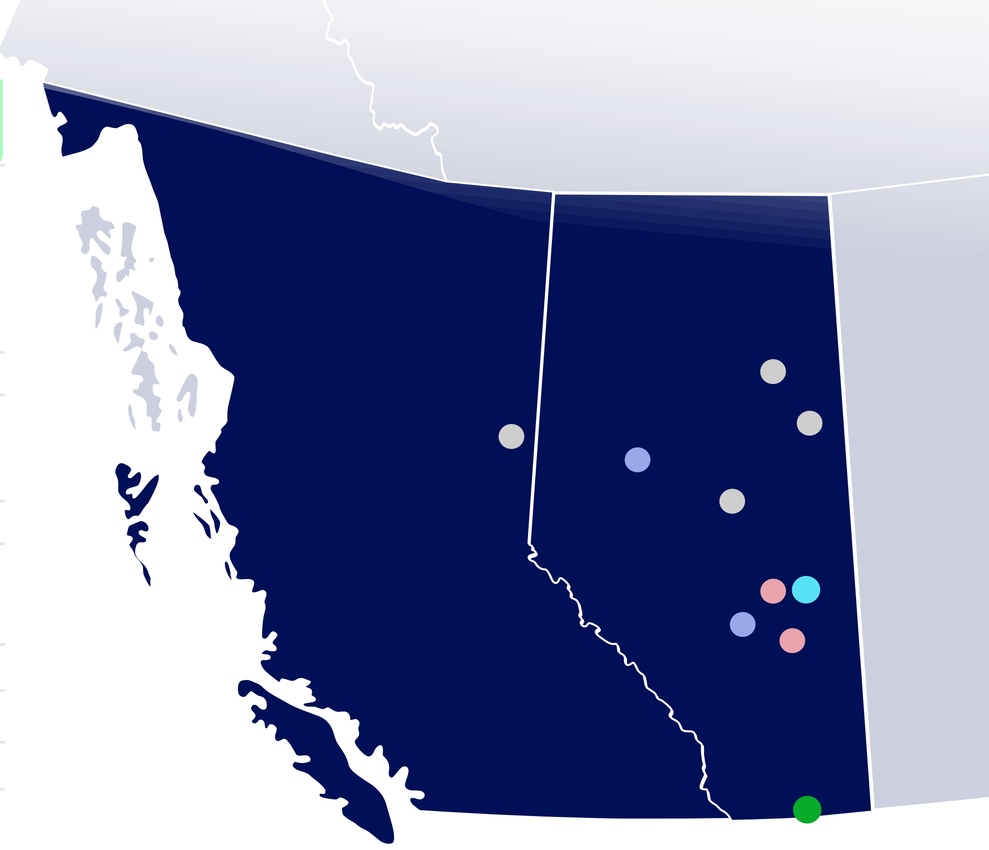
Of Australian fleet revenue contracted

~75% of generation revenue[2] is expected to come from contracted assets and hedging position

[1] Includes all Canadian assets outside of Alberta.
[2] Based on 2025 guidance expectations.
[3] As of December 31, 2024.

Heartland portfolio provides significant upside with reliability and contracted assets

Facility	Type	Contracted Capacity	Gross Capacity (MW)	Owned Capacity (MW)
Muskeg River	Cogen	85%	202	202
Scotford	Cogen	54%	195	195
McMahon	Cogen	100%	120	60
Primrose	Cogen	100%	100	50
Contracted Cogen			**617**	**507**
Joffre	Cogen	~26%	474	190
Valleyview 1&2	OCGT	0%	100	100
Peaker Gas			**574**	**290**
Sheerness 1&2[4]	CTG	0%	800	400
Battle River 4&5	CTG	0%	550	550
Coal-to-Gas Units			**1,350**	**950**
Total			**2,541**	**1,747**
Transmission				
Montana Alberta Tie Line Capacity Contract	Transmission	-	**200**	**200**
Development Assets				
Battle River Carbon Hub	Hydrogen	-	**400**	**400**



Facilities

Contracted cogen · Peaker gas · Coal-to-gas · Development assets · Transmission

5.4x adjusted EBITDA multiple[1]

~$270 per kW[3], significantly lower than new build

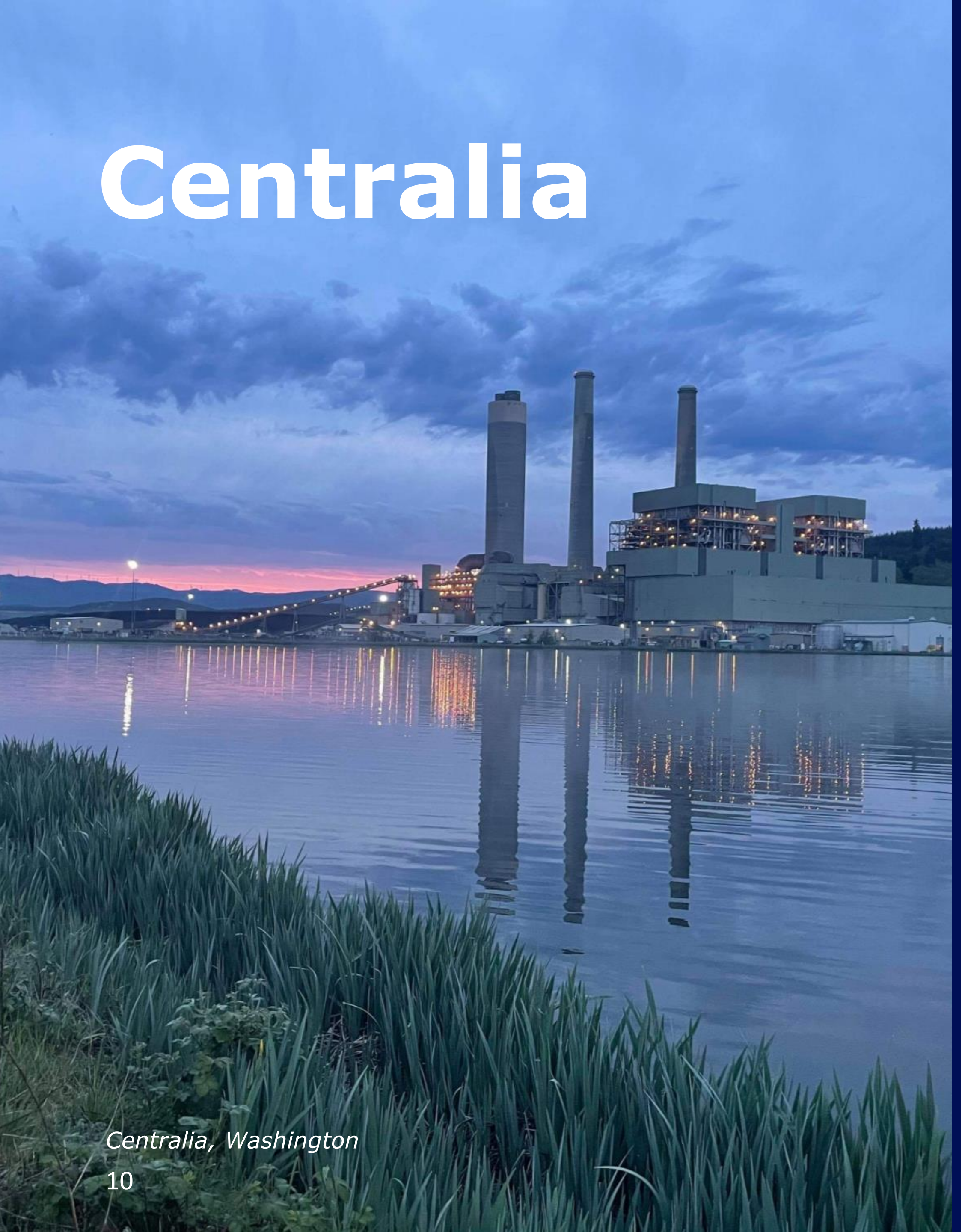
~$85-$90 million annual average adjusted EBITDA[2] contribution

~60% contracted revenue, 15-year average contract life

Closed Dec. 4, 2024

1 Adjusted EBITDA multiple is a metric calculated by dividing expected capital expenditures by expected average annual adjusted EBITDA. Readers are cautioned that our method for calculating adjusted EBITDA multiple may differ from methods used by other entities. Therefore, it may not be comparable to similar measures presented by other entities.
2 Average annual EBITDA is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.
3 kW is an abbreviation of kilowatt.
4 Owned capacity does not include the portion of Sheerness that TransAlta Cogeneration owns.

Centralia



Centralia, Washington

Valuable redevelopment opportunities for existing infrastructure and land base

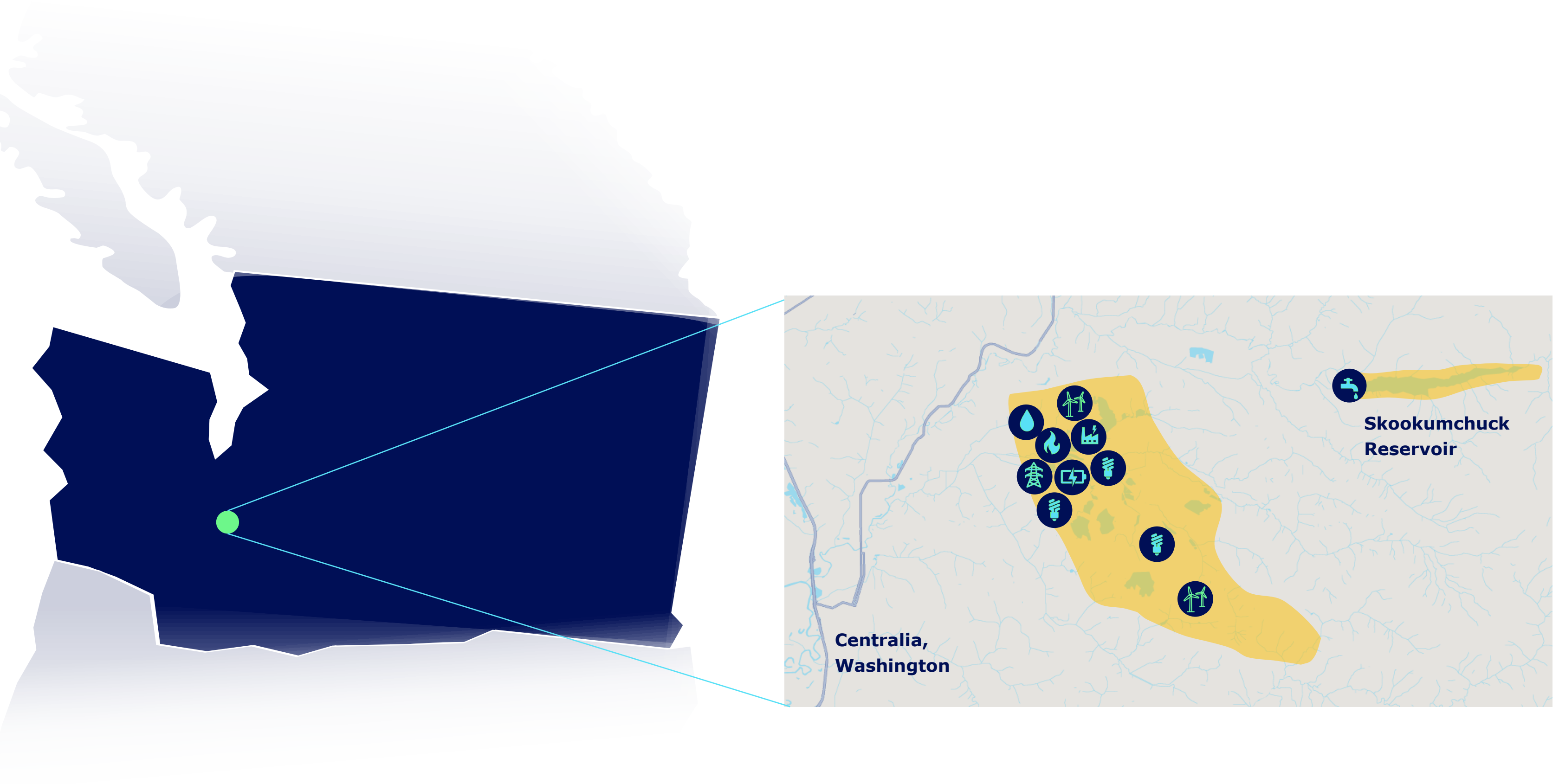
Attractive risk-adjusted returns and build multiples

Highly contracted cash flow

Advances TransAlta's customer-centred approach

Location	Centralia, WA
Potential Fuel	Gas, Wind, Solar, Battery, New Technology
Potential Contract Type	Long-term
Size	500-1,000 MW
COD	2027+
Owned Land	~12,000 acres

Pursuing multiple options for Centralia redevelopment



Operating unit	✓
Transmission interconnection	✓
Natural gas	✓
Next generation technology potential site	✓
Water rights	✓
Temperate climate and existing cooling ponds	✓
Skilled workforce availability	✓
Renewables potential site	✓
Battery potential site	✓
Owned Land:	**~12,000 Acres**

Potential to surface significant value through existing infrastructure

TransAlta has entered Keephills into the interconnection queue

Keephills, Alberta

Three phased approach to data centre development

Phase 1

Socialization

Engage potential customers and gauge interest

Phase 2

Technical

Development of technical specifications and advancement of sites

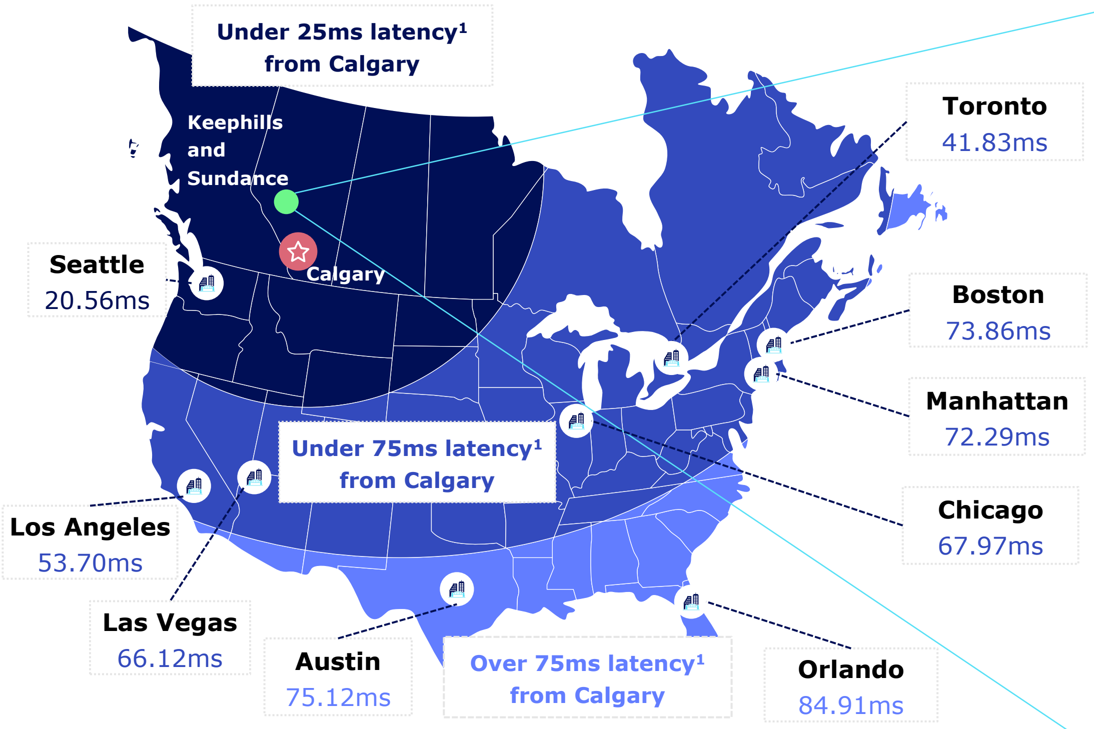
Current phase

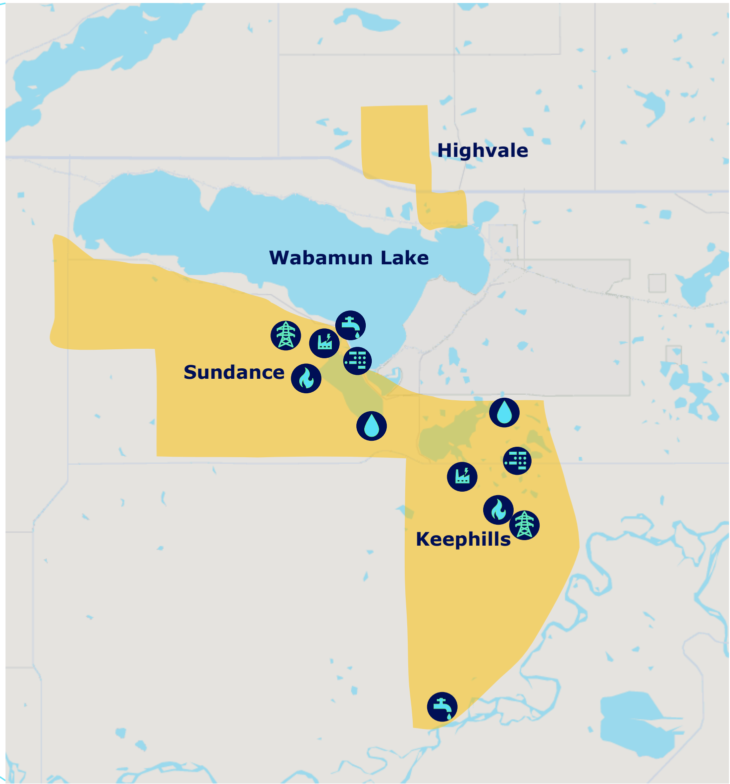
Phase 3

Commercialization

Contracting with high-quality counterparties

TransAlta offers attractive locations for data centres





	Wabamum Lake Area
Reliable operating units / speed to market	
Transmission interconnection	
Natural gas	
Fibre optic access	
Water rights	
Temperate climate and existing cooling ponds	
Owned Land:	**~40,000 Acres**

Alberta positioned to deliver latency under 75ms for most of Canada and the US

[1] *Network latency is the amount of time it takes for data to travel from a data centre to an end user (i.e., consumer or commercial internet user), measured in milliseconds ("ms") with a low (fast) latency being more desirable; latencies vary by location of fibre optic lines and are not directly correlated with distance. Sourced from Boston Consulting Group.*

Our competitive advantage

- Owner / operational excellence
- Optimization and trading excellence
- Strong balance sheet
- Local presence
- Full life cycle capabilities and risk control
- Strong customer relationships
- Demonstrated ESG results

Sustainability targets

Environmental goals

Net zero by **2045**

Reduce GHG emissions by **75%** by **2026**[1]

Reduce GHG emissions intensity by **30%** by **2030**[2]

End coal generation in US by **2025**

Social goals

Support for **indigenous communities**

Reclaim mined land in Alberta and Washington State

Achieve a Total Recordable Injury Frequency rate of **0.0**

Governance goals

50% female Board representation by **2030**

40% company-wide female employment by **2030**

Leadership on ESG reporting within financial disclosures

[1] As of TransAlta's 2015 Annual Integrated Report.
[2] As of TransAlta's 2023 Annual Integrated Report.

2024 performance

Horseshoe, Alberta

2024 delivered solid results in an evolving landscape

Results and financial position

Adjusted EBITDA[1] of **$1.25 billion**

FCF[1] of **$569 million** or **$1.88/share**

Met **upper range** of **guidance**

Returned **$0.71 per share or 38% of FCF**[1] to shareholders through buybacks and dividends

Increased common share **dividend** by **8%**

Achievements

Closed acquisition of **Heartland Generation** adding ~1.7 GW of assets

Fleetwide **availability** of **91.2%**

Horizon Hill, White Rock, Kent Hills rehabilitation and Mount Keith **achieved commercial operation** adding 650 MW of generation

CO_2 emissions intensity decreased to **0.35 tCO2e/MWh**

Strategic initiatives

Pursuing **Centralia redevelopment** opportunities

Advancing options to power **data centres in Alberta**

Continue to evolve **Growth Plan**

Engaging on **Alberta Restructured Energy Market**

[1] Adjusted EBITDA, FCF, and FCF per share are non-IFRS measures, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.

TransAlta segmented results

Year and three months ended December 31, 2024

($millions)

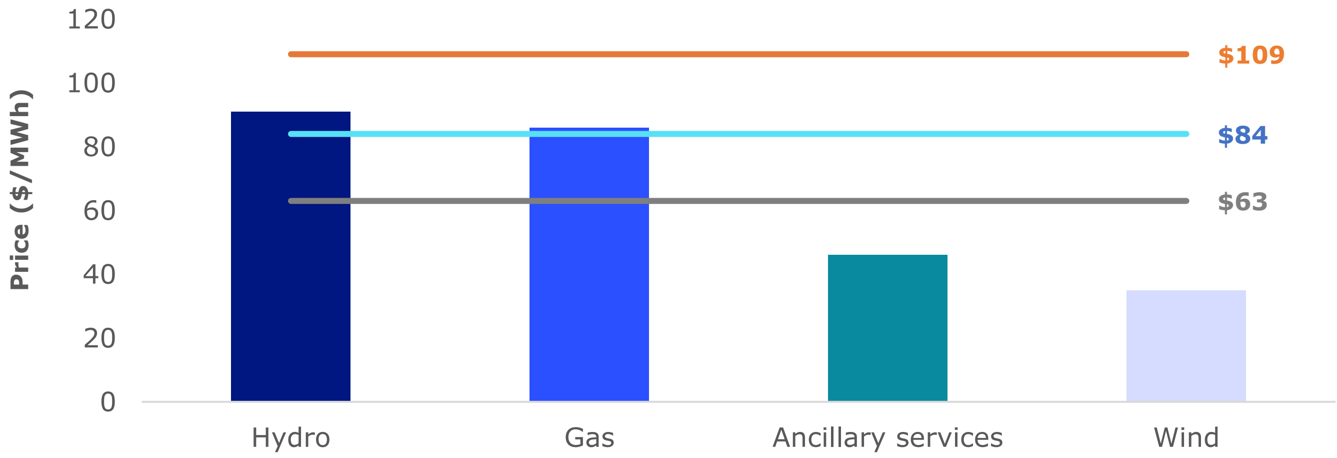
2024	2023	Adjusted EBITDA[1]	Q4 2024	Q4 2023
316	459	Hydro	**57**	56
316	257	Wind and Solar	**95**	82
535	801	Gas	**116**	141
91	122	Energy Transition	**28**	26
131	109	Energy Marketing	**27**	14
(136)	(116)	Corporate	**(38)**	(30)
1,253	1,632	Total	**285**	289

Strong operating and financial performance

[1] *Adjusted EBITDA is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.*

Realized significant premiums in Alberta

2024 full year prices



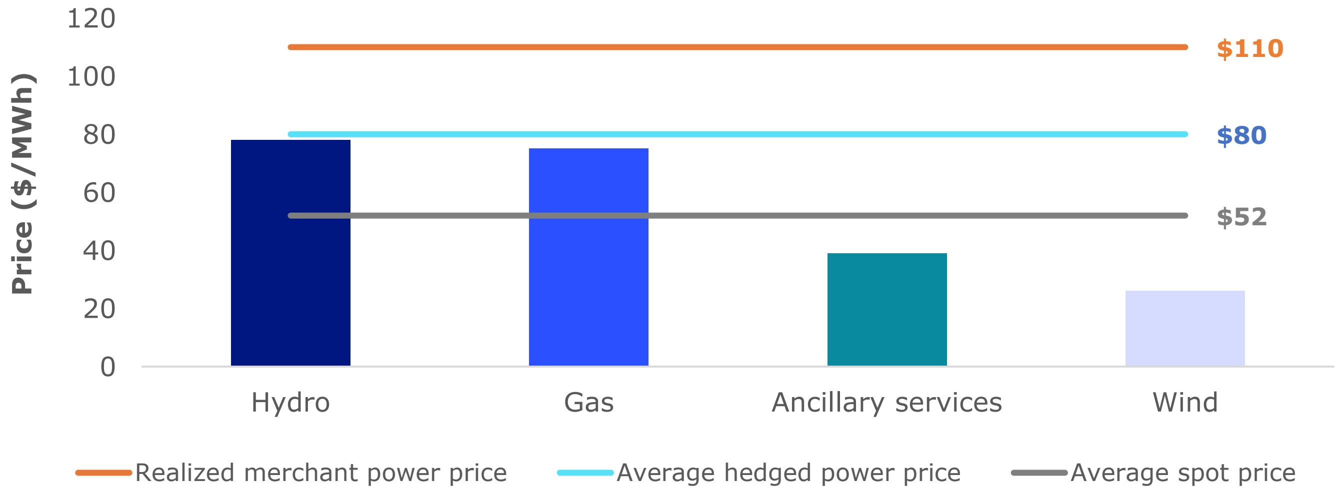
174% realized premium to spot price[1]

144% Hydro premium to spot price[2]

137% Gas premium to spot price[2]

73% Ancillary services to spot price

2024 Q4 prices



212% realized premium to spot price[1]

150% Hydro premium to spot price[2]

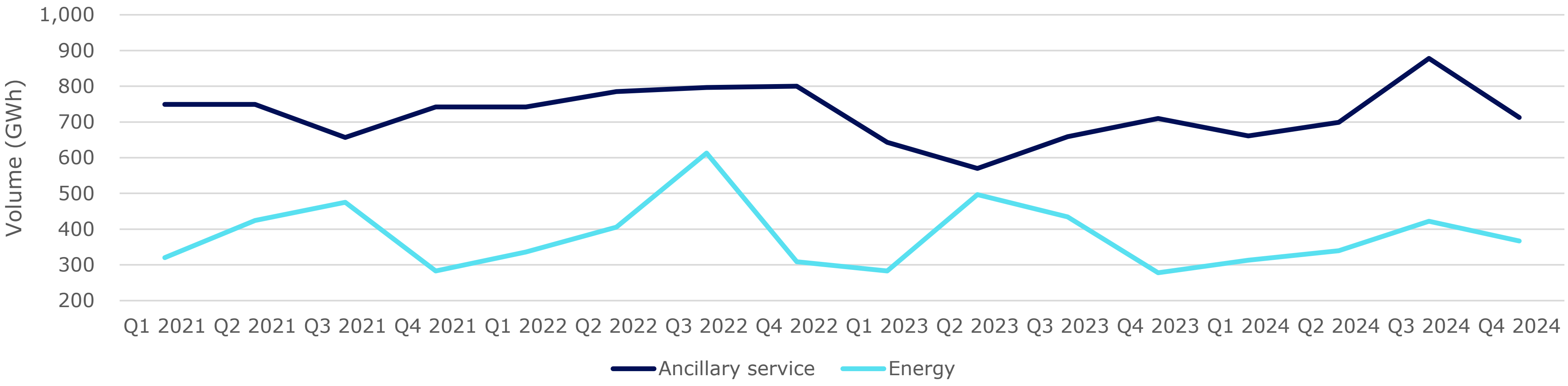
144% Gas premium to spot price[2]

75% Ancillary services to spot price

[1] Realized merchant power price for the Alberta electricity portfolio is the average price realized as a result of the Company's merchant power sales and portfolio optimization activities (excluding assets under long-term contract and ancillary revenues) divided by total merchant GWh produced.
[2] Excludes gains and losses from hedging positions.

Hydro ancillary services provide stability

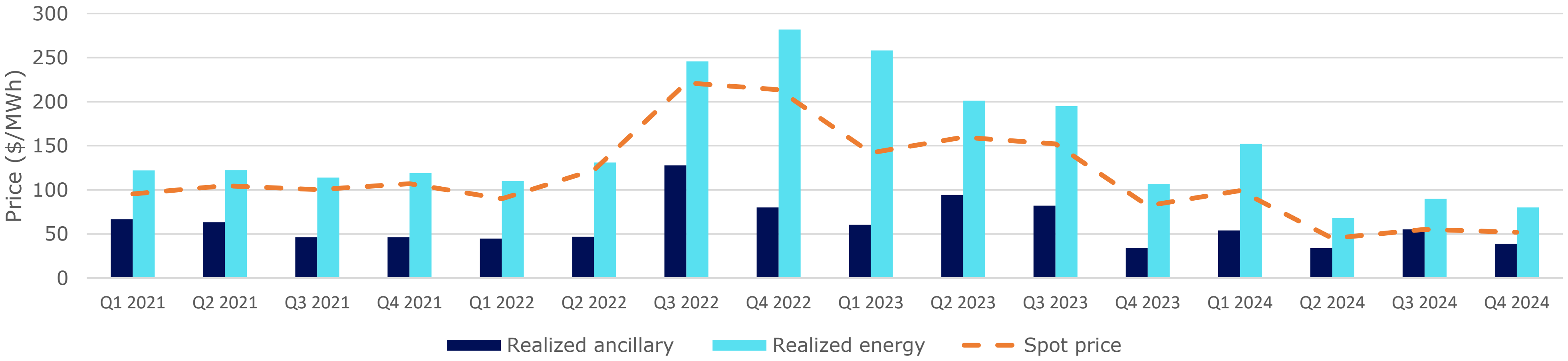
Alberta hydro fleet volumes (GWh)



+14%

Ancillary volume increase from 2023 to 2024

Alberta realized prices ($/MWh)



53%[1]

Average realized ancillary price to spot

130%[1]

Average realized energy price premium to spot

[1] *Average from Q1 2021 until Q4 2024.*

2025 outlook

Windrise, Alberta

2025 guidance

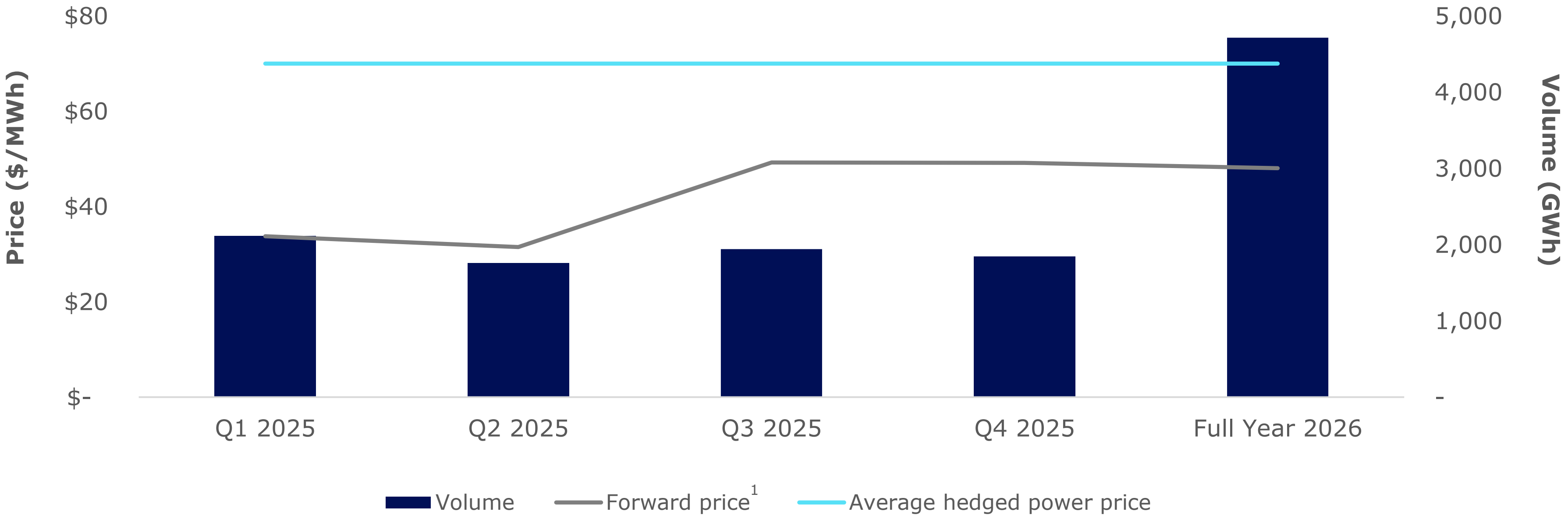
($ millions)	2025 Outlook
Adjusted EBITDA[1]	1,150 to 1,250
FCF[1]	450 to 550
FCF/share ($/share)[1]	$1.51 to $1.85
Energy Marketing Gross Margin	110 to 130
Sustaining Capital	145 to 165

Market	2025 Outlook
Alberta Spot ($/MWh)	40 to 60
Mid-C Spot (US$/MWh)	50 to 70
AECO Gas Price ($/GJ)	1.60 to 2.10

Reflects strong hedged position and contracted cash flows

[1] *Adjusted EBITDA is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.*

Strong hedge position in Alberta



	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Full year 2026
Price ($/MWh)	72	70	70	70	75
Volume[2] (GWh)	2,117	1,758	1,942	1,845	4,713

Hedged power prices above forward curve

$1 per MWh change in spot price ~$3 million impact on adjusted EBITDA[3]

[1] As of February 20, 2025.
[2] C&I and financial hedges; excludes capacity contract.
[3] Adjusted EBITDA is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.

2025 in-year priorities

Windrise, Alberta

2025 priorities

Safety, people and culture

Improve leading and lagging **safety performance**

Advance **leadership and talent** development

Continue progress towards **40% gender diversity** target by 2030

Financial and operational

Deliver adjusted EBITDA[1] of **$1.15 - $1.25 billion**

Deliver FCF[1] of **$450 - $550 million**

Maintain **strong balance sheet** and credit ratings

Achieve fleet availability of **91.8%**

Strategic initiatives

Maximize value of **legacy thermal energy campuses**

Successfully integrate **Heartland** Generation

Execute **strategic M&A** and advance **Growth Plan**

Implement our new **ERP system**

Develop comprehensive **funding plan** to **facilitate growth**

Progress CO_2 **emissions reduction** to 75% from 2015 levels by 2026

Delivering operational excellence and executing strategic initiatives

[1] Adjusted EBITDA and FCF are non-IFRS measures, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.

Alberta market evolution

Big Horn, Alberta

Alberta business

Maximize

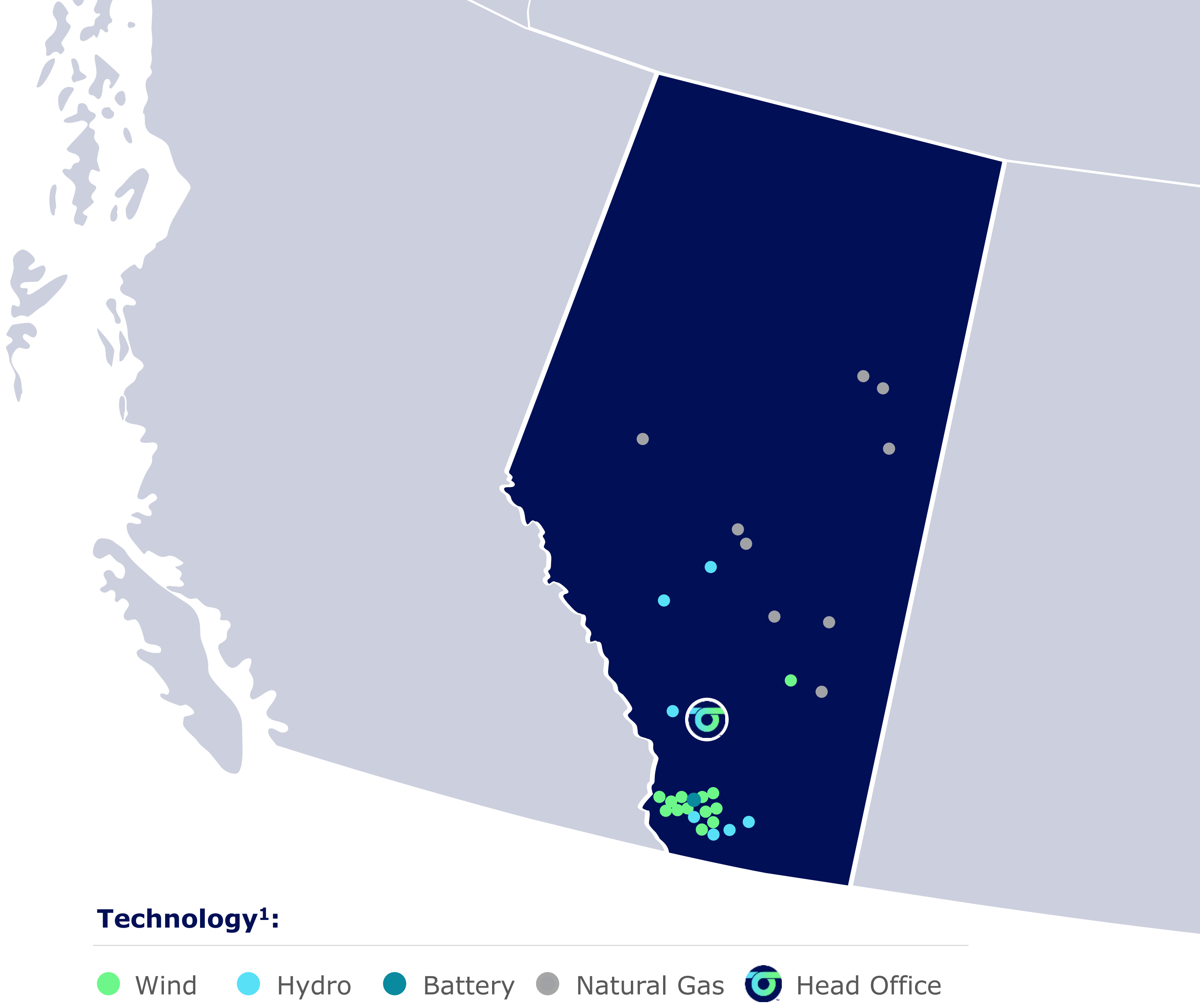
shareholder returns through **active management** of our **diversified** merchant **portfolio**

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**



[1] *Includes Heartland Generation assets*

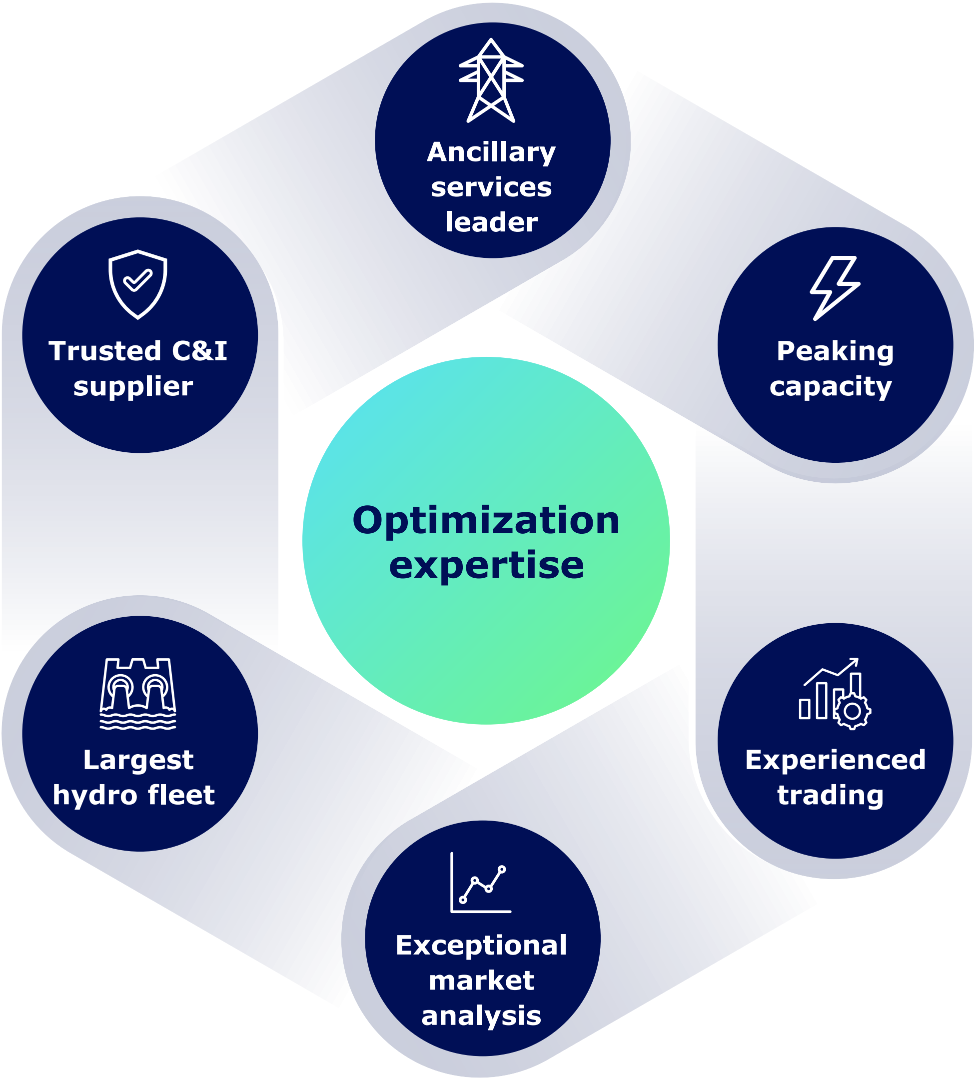
Hedging and optimization increases our advantage

114-year extensive operating expertise

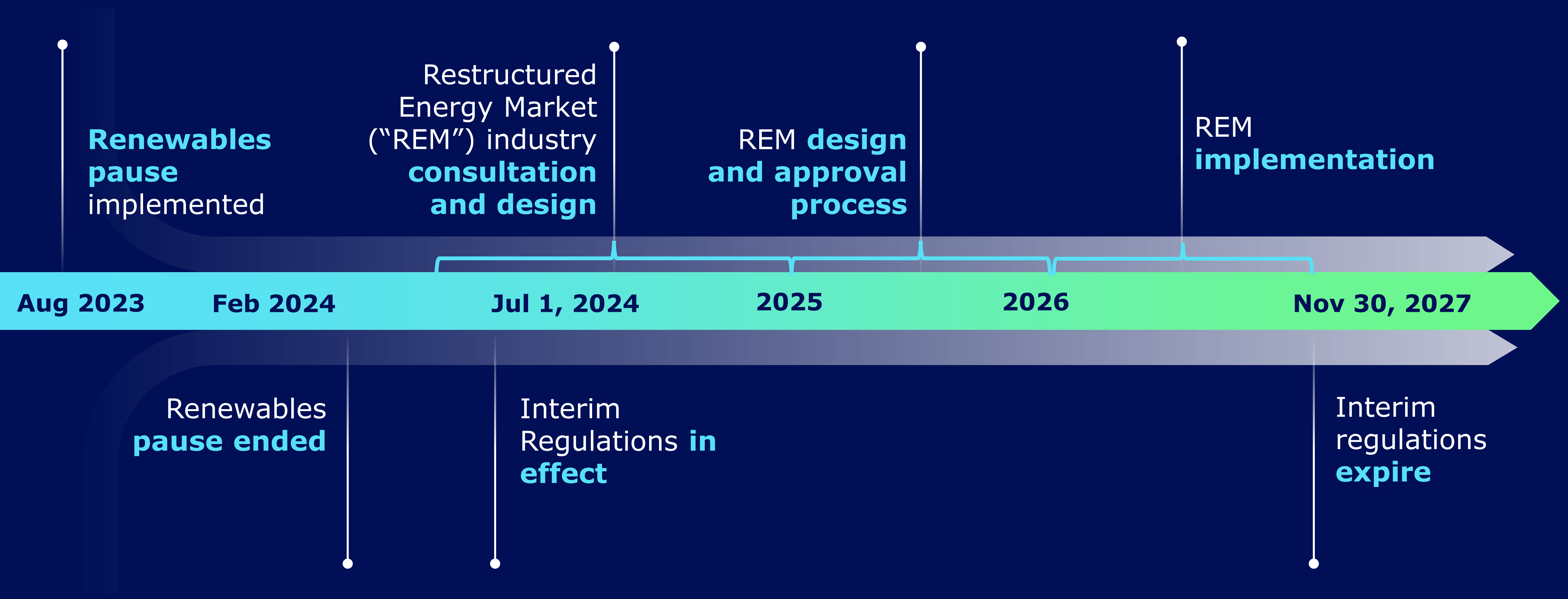
Exceptional **in-house forecasting and analytical** capabilities

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

Large customer base spanning the wholesale, commercial and industrial base



Alberta regulatory change timeline



Alberta interim regulations

July 1, 2024 to November 30, 2027

1 Market power mitigation regulation

Creates offer limit for only gas-fired resources with offer control ≥ 5%

Triggered when monthly cumulative **net revenues** exceeds 2 months of annualized costs for a theoretical combined cycle unit

Offers from gas-fired resources will be limited at the greater of $125/MWh or 25 times the day-ahead gas price

Offer limit resets at start of every month

2 Supply cushion regulation

Requires the AESO to direct long lead time assets to operate at minimum stable

Targets a **supply cushion** of 932 MW[1]

The long lead time assets would be **compensated for variable costs net of revenues earned**

Interim regulations not expected to significantly impact TransAlta

[1] Double the most severe single contingency of 466 MW.

Restructured Energy Market update

State of play

- Mandatory day-ahead market
- Strategic energy bidding mechanisms
- Review of the current price ceiling and floor
- Reduction of settlement windows
- Dispatch optimization
- Intertie expansion market participation options

TransAlta's positioning

- Changing energy landscape requires a long-term focus
- Market redesign is necessary to deliver reliable, affordable electricity
- Market will have to be incentivized to be effective

Market requires low-cost flexible generation for grid reliability

Merchant electricity market evolution

2020 – 2025	2025 – 2030
Higher average pricing	Lower average pricing

Moderate volatility

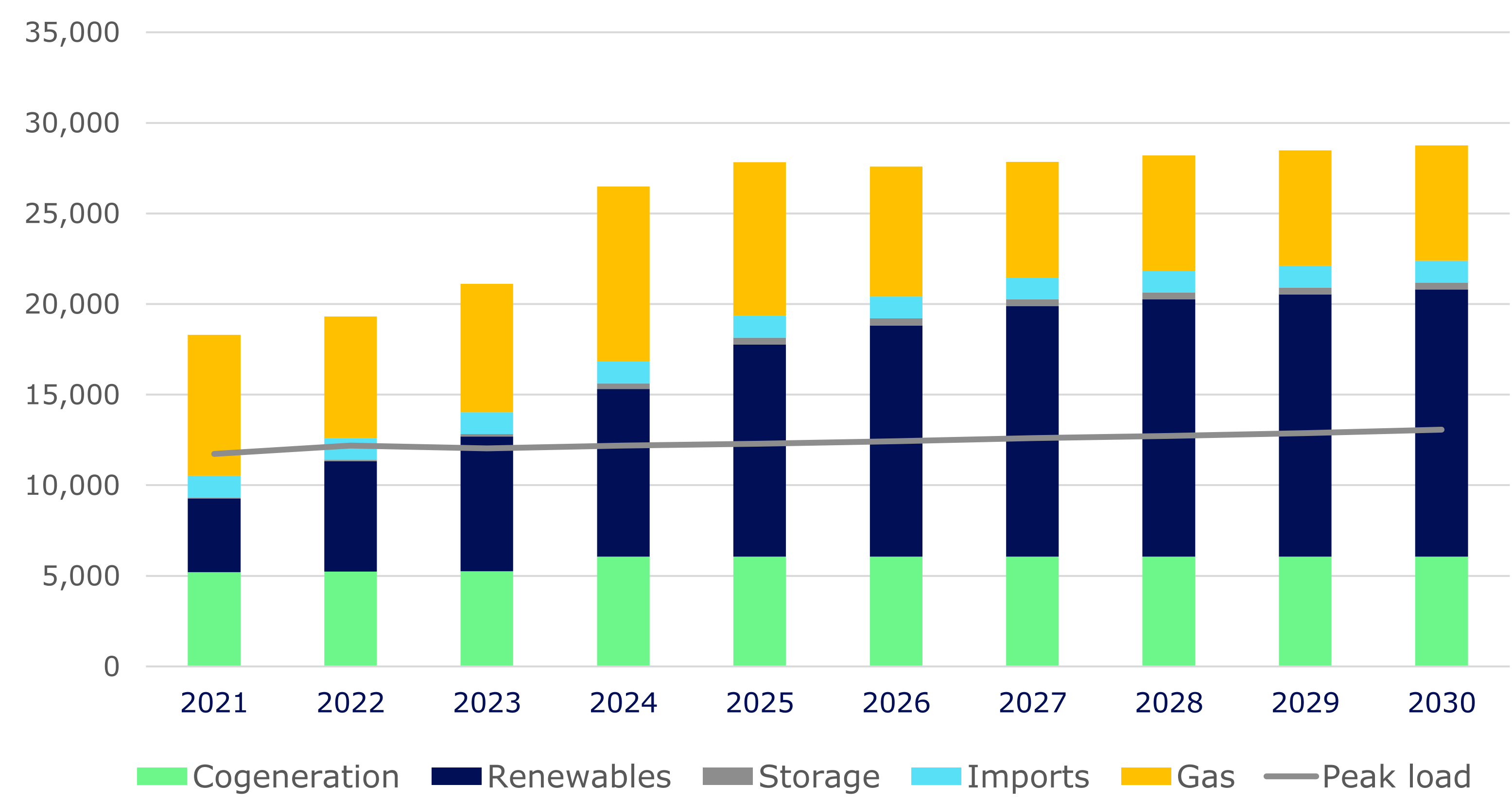
- Baseload generation
- Higher carbon footprint
- Hedging and optimization

Higher volatility

- Peaking generation and fleet diversity
- Lower carbon footprint
- Optimization and hedging
- Grid reliability services

Major supply shift continues

Alberta installed capacity and peak load (MW)[1]



+185%

Expected supply growth in renewables

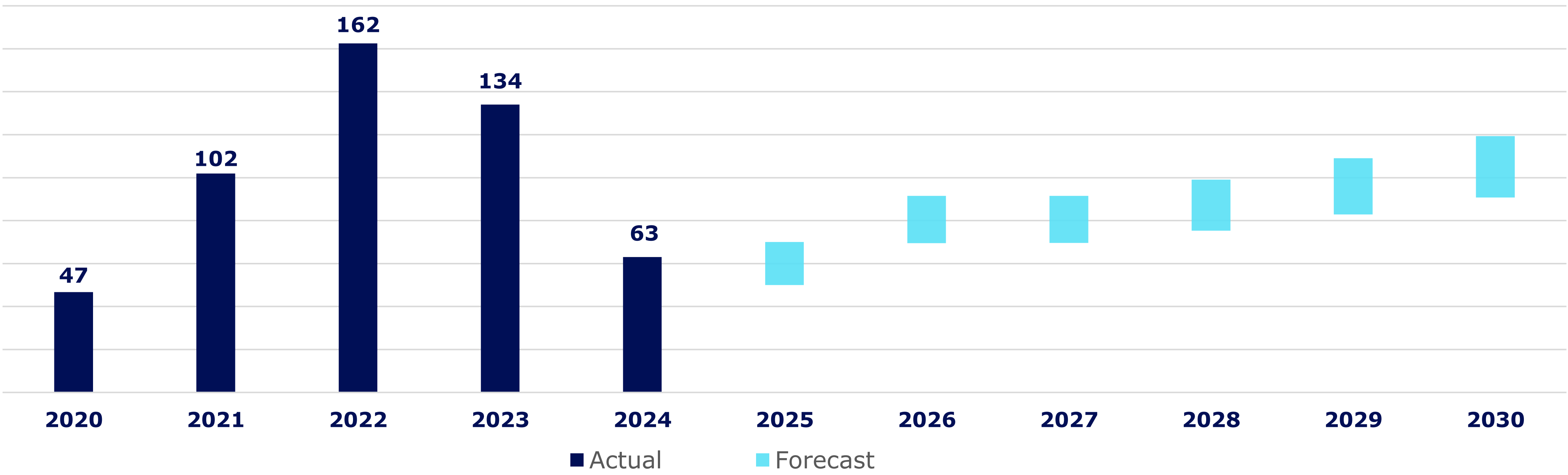
+140%

Expected supply growth in combined cycle gas

[1] *As of and sourced from TransAlta's 2023 Investor Day presentation, which can be found at https://transalta.com/investors/presentations-and-events/*

Prices expected to soften mid-decade with supply

Annual average power price forecast ($ per MWh)[1]

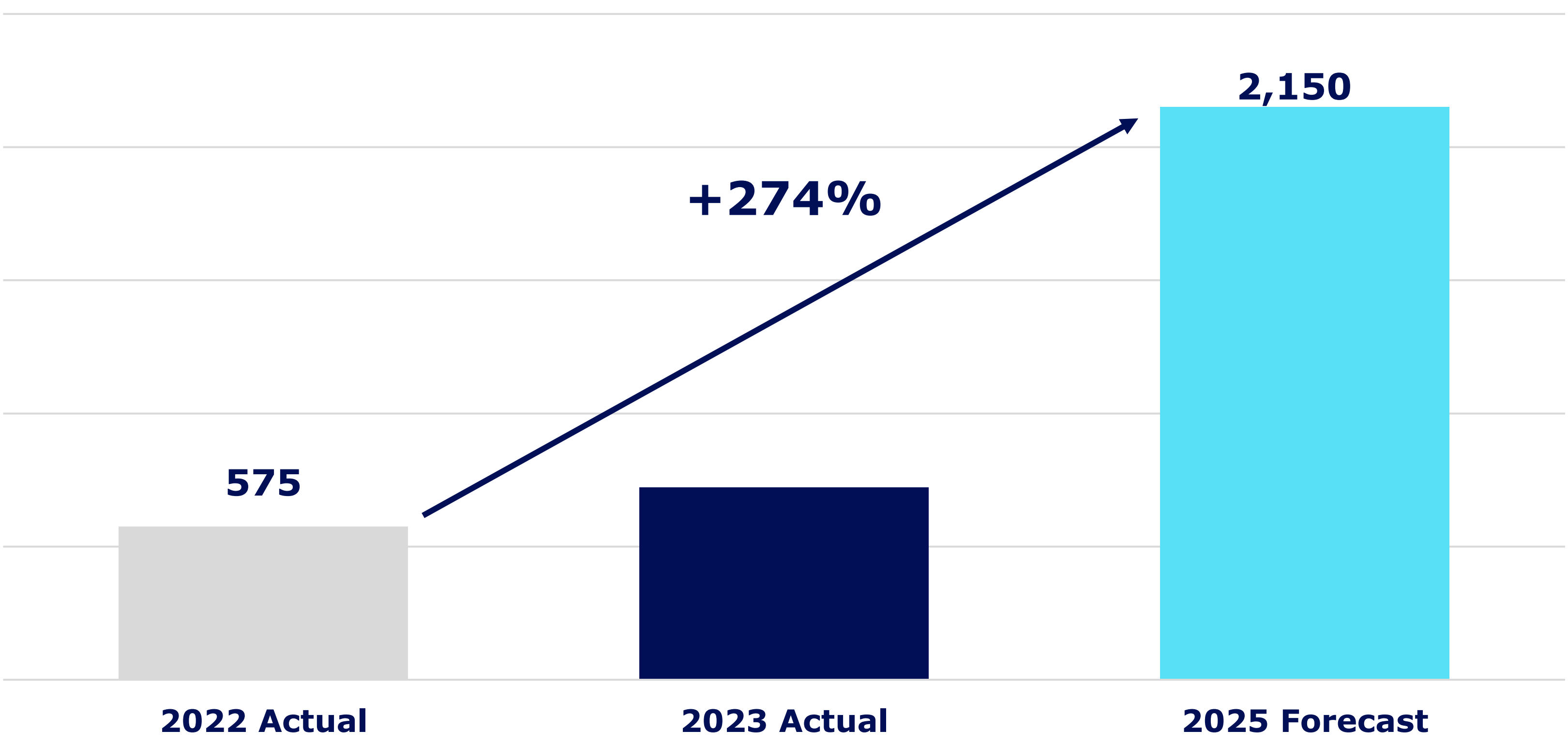


Prices to rebound later in the decade

[1] *Forecast is as of and sourced from TransAlta's 2023 Investor Day presentation, which can be found at https://transalta.com/investors/presentations-and-events/*

Intraday volatility of renewable supply

Renewable generation - maximum hourly change (MW)[1]



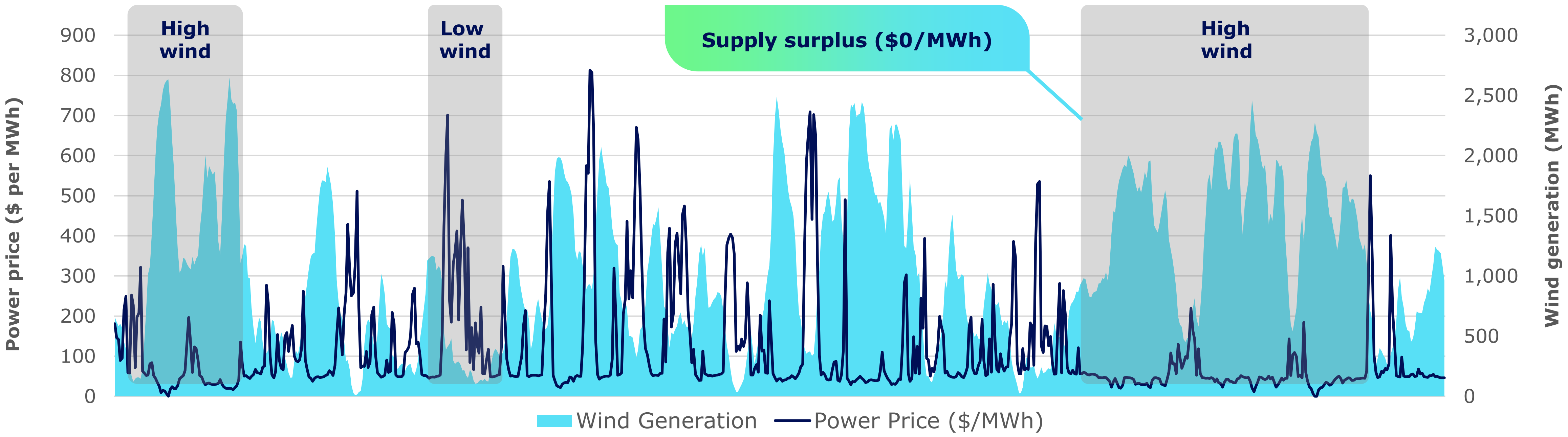
Increasing renewable generation will result in larger hour-to-hour changes in output

Challenging the reliability of the system

[1] *As of and sourced from TransAlta's 2023 Investor Day presentation, which can be found at https://transalta.com/investors/presentations-and-events/*

Wind penetration increases volatility in price

September 2023 wind generation and power price volatility[1]

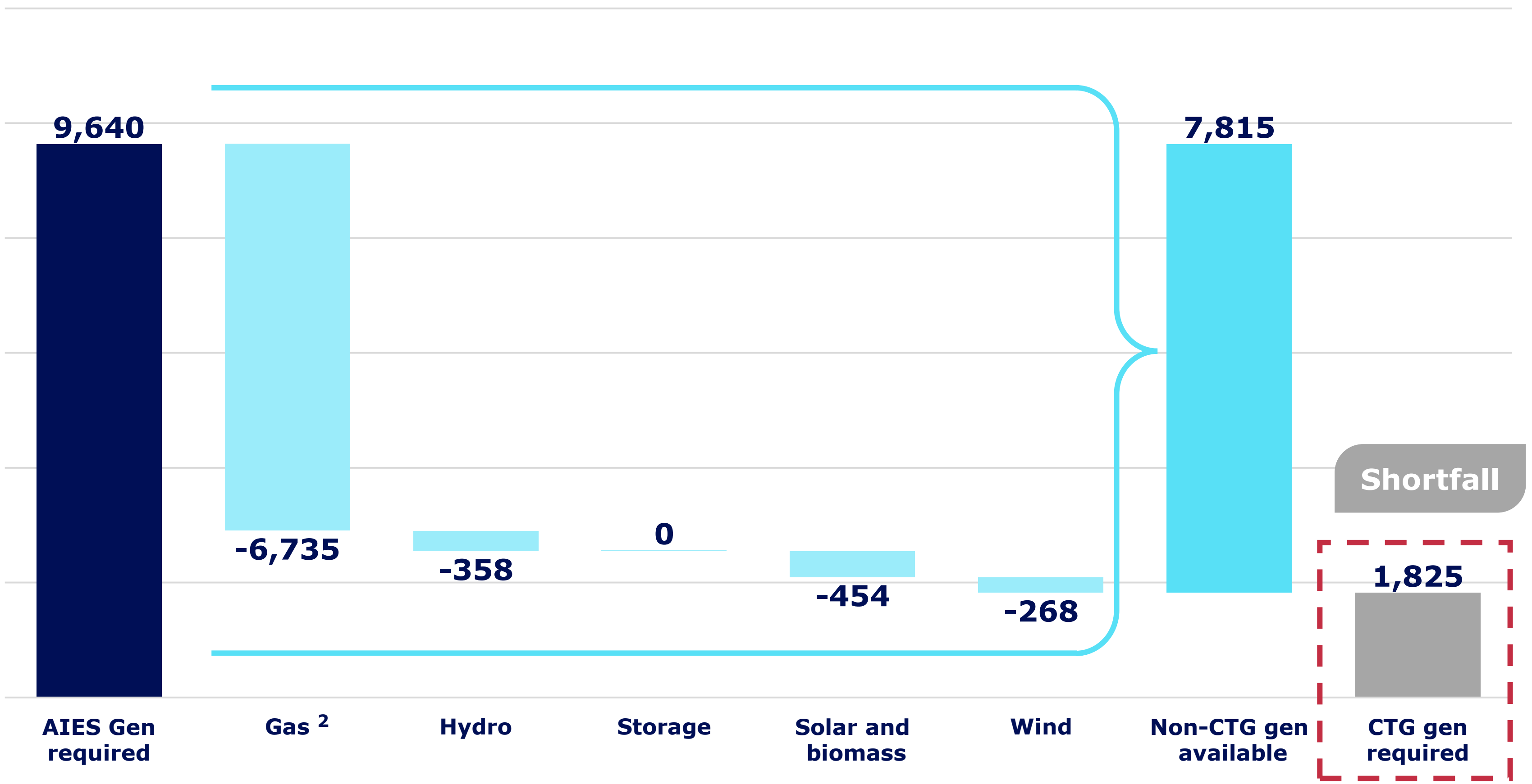


Low wind generation allows for higher prices, while high wind generation tends to drive lower pricing or even supply surplus conditions.

[1] As of and sourced from TransAlta's 2023 Investor Day presentation, which can be found at https://transalta.com/investors/presentations-and-events/

Thermal gas required when renewable resources are low

Estimated thermal gas generation required (MW)[1]



Thermal gas capacity is required to meet Alberta demand and reliability

Province loses 5.5 GW of capacity on low renewable-resource days[1]

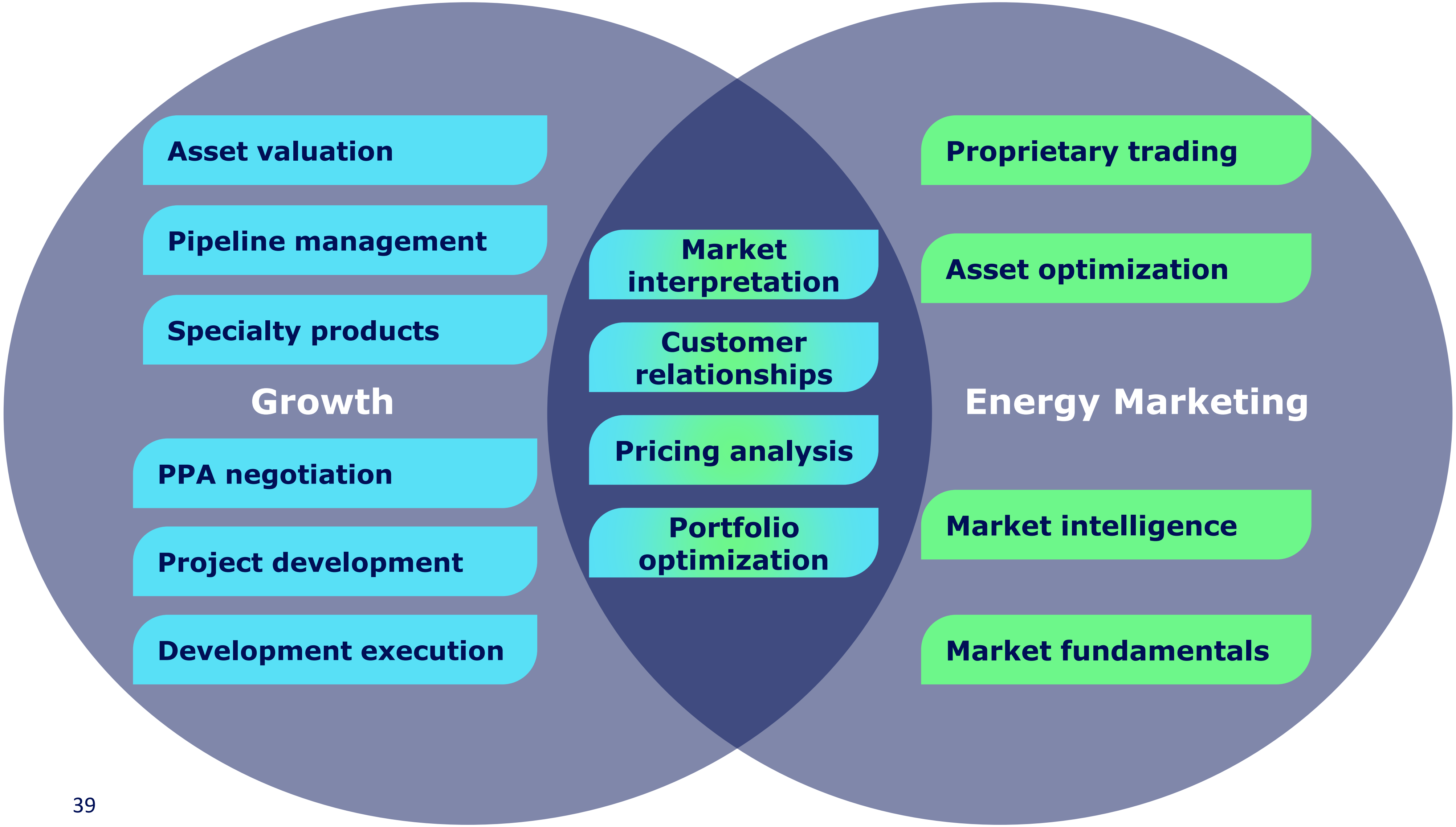
[1] As of and sourced from TransAlta's 2023 Investor Day presentation, which can be found at https://transalta.com/investors/presentations-and-events/

[2] Includes cogen NTG, CCGT and SCGT

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

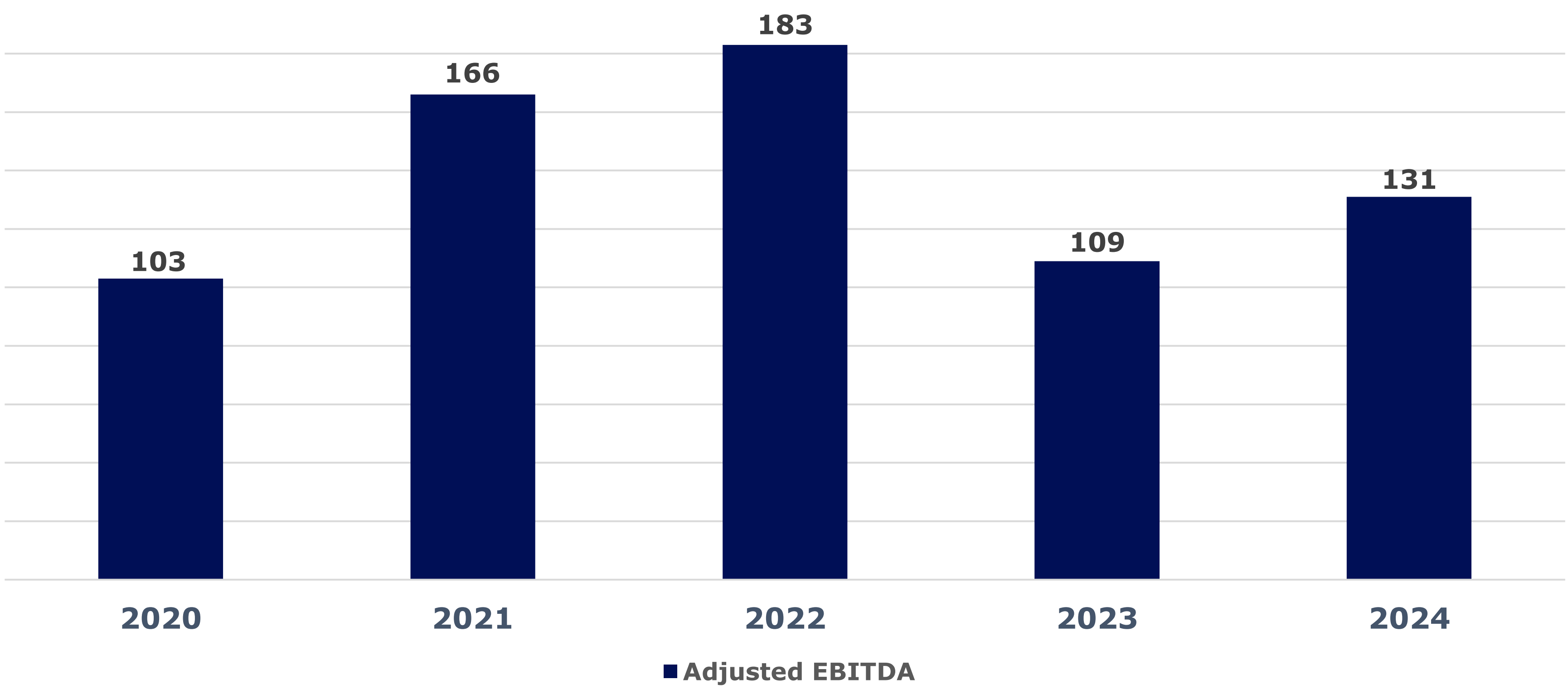
Energy marketing capabilities

		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

Energy Marketing has delivered $700 million of adjusted EBITDA[1] since 2020

Adjusted EBITDA[1] contribution ($ million)



Increasing volatility across North American markets creates opportunities

Positioned to **deliver value** in all market conditions

Tightly managed risk profile

$140 million
5-year average adjusted EBITDA[1]

[1] *Adjusted EBITDA is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.*

Financial strategy and plan

Brazeau, Alberta

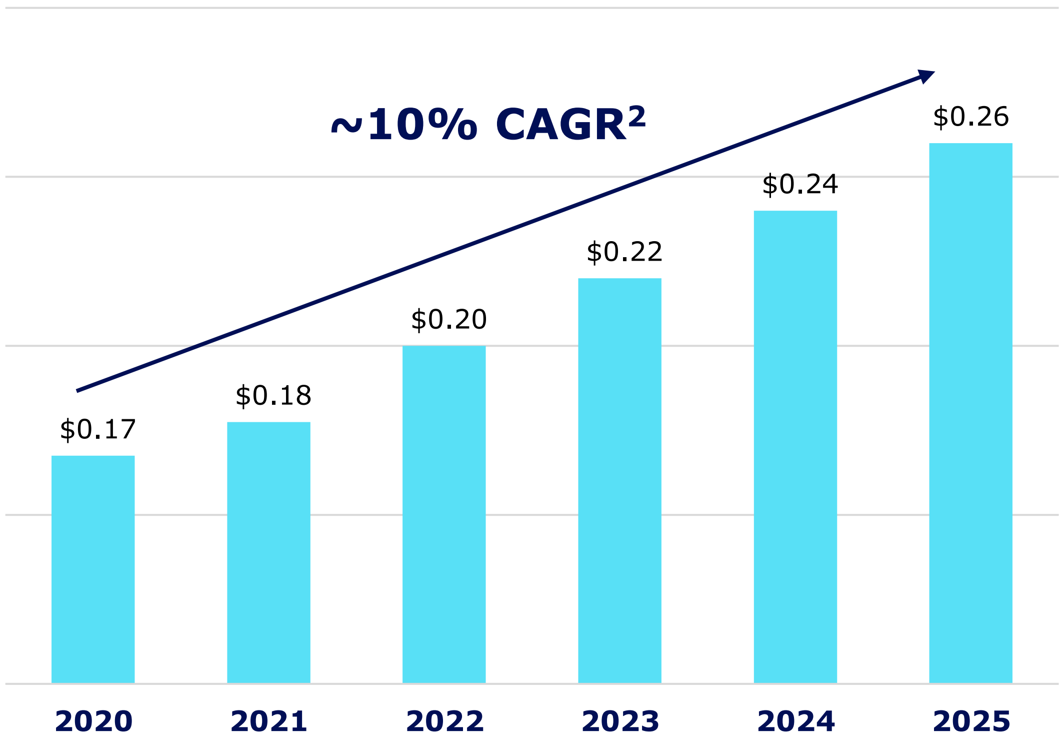
Prudent capital management

Credit ratings

S&P	BB+
Moody's	Ba1
DBRS	BBB (low)

Adjusted Net Debt/Adjusted EBITDA target	**3.0 - 4.0x**

Dividend



[1] *Adjusted net debt and adjusted EBITDA are non-IFRS measures, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.*
[2] *CAGR is an abbreviation of compound annual growth rate.*

Capital allocation maximizes shareholder value

Free Cash Flow[1]

- **Maintain balance sheet**
- **Fund the dividend**
- **Execute on growth**
- **Repurchase shares**

Maintain **strong credit metrics**

Dividend increased by **8%**; payout ratio equates to **15% of expected 2025 FCF**[1]

Realize value from **legacy thermal sites**

Invest in **strategic M&A** opportunities and **long-term Growth Plan**

Return up to **$100 million** in share repurchases

[1] FCF is a non-IFRS measure, see the forward-looking statements and non-IFRS measures information on slide two of this presentation for more information.

Our Value Proposition

- **Safe and reliable operator**
- **Diversified and increasingly contracted portfolio**
- **Clean electricity leader**
- **High potential legacy energy campuses**
- **Positioned for growth**
- **Financial strength and flexibility**

Antrim, New Hampshire