



# Investor Presentation

JANUARY 19, 2022



# 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: our strategy, including our Clean Electricity Growth Plan, including amount of renewables growth, associated capital expenditures, and annual new EBITDA; increase in renewables fleet and development pipeline beyond 2025; expected 2021 free cash flow of \$500 million to \$560 million; 2022 financial outlook, including as it pertains to Comparable EBITDA, free cash flow and sustaining capital; 2022 Alberta hedge levels for gas and power; emission reductions to 2026 and carbon neutrality by 2050; expected continued global decarbonization efforts; EBITDA attributable to renewables by end of 2025; future operational performance, including availability, OM&A, sustaining capital expenditures and staffing levels; investment focus from 2021 to 2025, including renewables and storage, gas generation and parallel new investments; ability to deliver the development pipeline and timing of potential commercial operation; the Company's construction and development projects, including the Garden Plain project, Northern Goldfield projects and White Rock East and West project, including the expected commercial operation dates and annualized EBITDA; the expected changes to the Alberta market, including Alberta power pricing and volatility; marginal cost of coal to gas units; five-year expected trend on capital allocation; and the achievement of the Company's sustainability targets.

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; the provisions of contracts to which TransAlta or a subsidiary is a party; management's current plans and its perception of historical trends; current conditions and expected future developments; 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: more restrictive directives of government and public health authorities; reduced labour availability and ability to continue to staff the Company's operations and facilities; disruptions to TransAlta's supply chains, including its ability to secure necessary equipment and to obtain regulatory approvals on the expected timelines or at all; force majeure claims impacting the Company's operations and construction projects; curtailments reducing merchant production; TransAlta's ability to maintain its credit ratings; restricted access to capital and increased borrowing costs; increased costs, including those resulting from TransAlta's efforts to mitigate the impact of the COVID-19 pandemic; regulatory and environmental process delays; adverse impacts on the Company's information technology systems and its internal control systems; political uncertainty; disruptions in the transmission and distribution of electricity; the effects of weather, natural disasters and other climate-related risks; results and exposures of TransAlta's Energy Marketing segment, including deviations from historical trends; disruptions to the operations, including unplanned outages, equipment failures and TransAlta's ability to carry out repairs in a cost-effective or timely manner; and general competition and industry risks. 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 and Annual Information Form for the year ended December 31, 2020, filed under the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com) and with the U.S. Securities and Exchange Commission at [www.sec.gov](http://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, 2021 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



**\$9.2 billion**

## ENTERPRISE VALUE

Strong balance sheet and capital discipline



**110 Years**

## GENERATION EXPERIENCE

The foundation of our focused strategy



**\$3.5 billion**

## MARKET CAPITALIZATION

Listed on the TSX and NYSE



**1,300**

## EMPLOYEES

Central to value creation

**~8,000 MW**

## DIVERSIFIED PORTFOLIO

74 generating facilities in Canada, the United States and Australia

**\$500 - \$560 million**

## 2021 EXPECTED FREE CASH FLOW

Continued strong performance

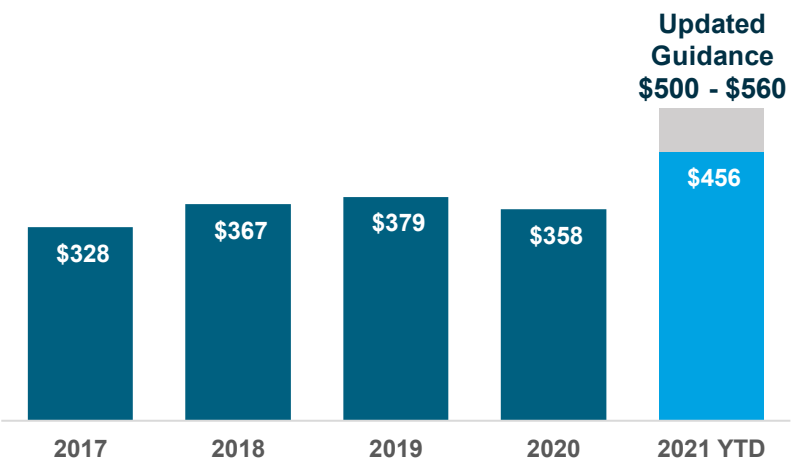
**25 million tonnes**

## ANNUAL EMISSIONS REDUCTIONS SINCE 2005

8% of Canada's emissions reduction target

# 2021 Financial Strength

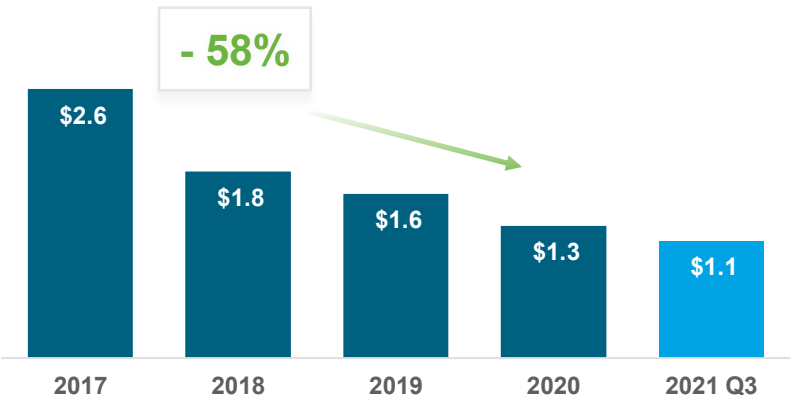
FCF (\$MILLIONS)



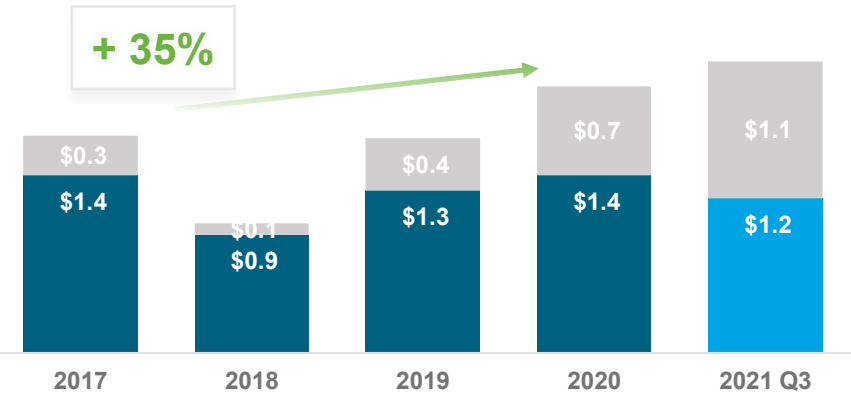
FCF PER SHARE



SENIOR CORPORATE DEBT (\$BILLIONS)



LIQUIDITY (\$BILLIONS)



# 2022 Outlook

(\$millions)	2022 Target	2021 Target (as at Q3 2021)
<b>Comparable EBITDA</b>	\$1,065 - \$1,185	\$1,200 - \$1,300
<b>FCF</b>	\$455 - \$555	\$500 - \$560
<b>Sustaining Capital<sup>(1)</sup></b>	\$150 - \$170	\$200 - \$225

Market	2022 Prices	2021 Prices (as at Q3 2021)
<b>Alberta Spot</b>	\$80 to \$90	\$95 to \$105
<b>AECO Gas Price (\$/GJ)</b>	\$3.60	\$3.45

Alberta Hedging	2022 Assumptions	2022 Assumptions (as at Q3 2021)
<b>Hedged Production (GWh)</b>	6,278	4,387
<b>Hedge Price (\$/MWh)</b>	\$75	\$71
<b>Hedged Gas Volume (GJ)</b>	50 million	49 million
<b>Hedge Gas Price (\$/GJ)</b>	\$2.75	\$2.74

## Continuing Strong Cash Flow for 2022



# Who We Are

A Customer-Centred Clean Energy Leader

## Our Vision

A **leader** in clean electricity – committed to a **sustainable future**



### OUR STRATEGY

- Customer Needs
- Operational Excellence
- People
- Shareholder Value



### OUR VALUES

- Safety
- Innovation
- Sustainability
- Respect
- Integrity

# TransAlta's Core Businesses



## MERCHANT HYDRO



## THERMAL GENERATION



## ENERGY MARKETING AND TRADING



## BUSINESS DEVELOPMENT



## TransAlta renewables inc.



*Diversified and reliable generation with world-class trading and business development teams*

# Fleet Overview



**Wind and Solar**

29 Facilities



**Hydro**

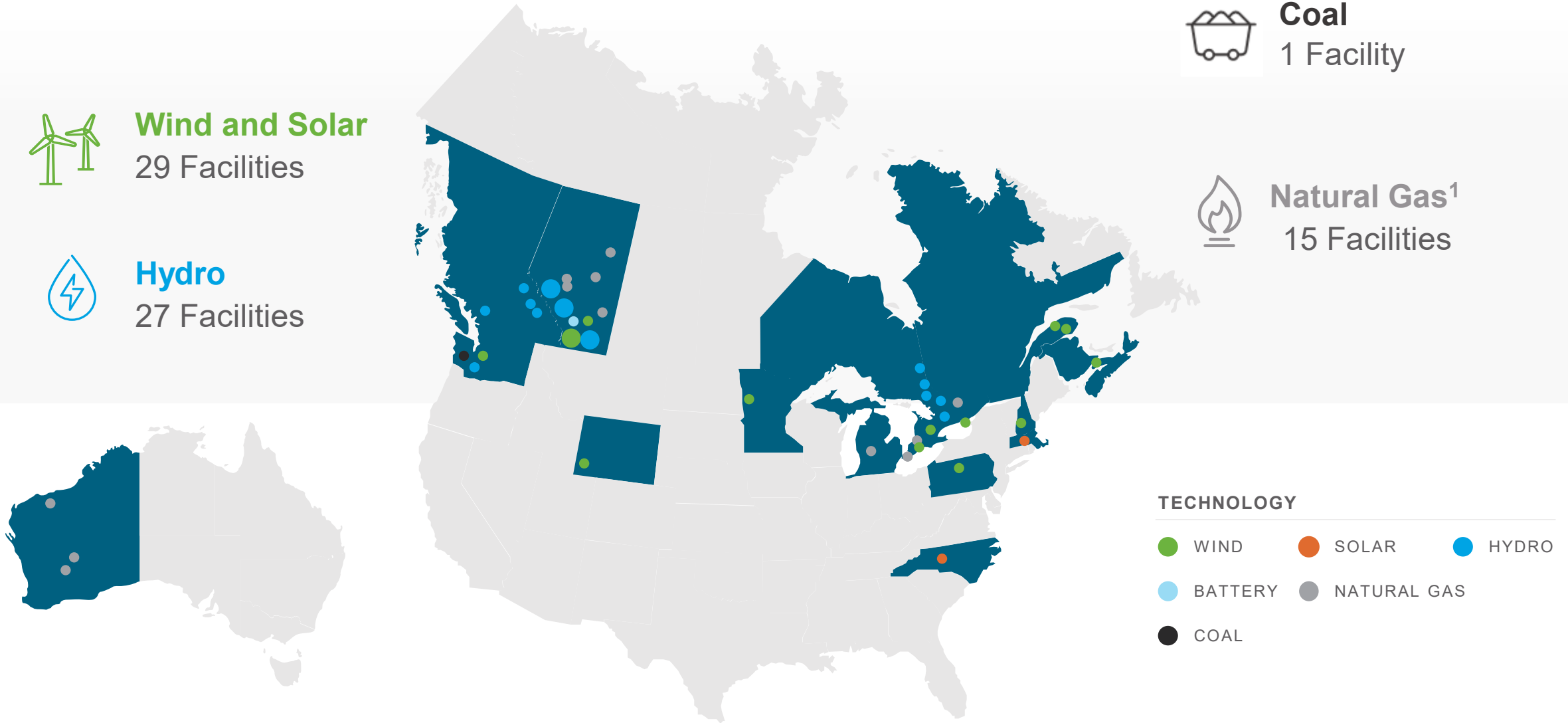
27 Facilities



**Coal**  
1 Facility



**Natural Gas<sup>1</sup>**  
15 Facilities





# Clean Energy Transition Ahead of Plan

## CLEAN ENERGY GROWTH

- ✓ Over 400 MW of renewables and storage added, including first utility-scale storage
- ✓ Established ~3 GW wind and solar pipeline
- ✓ Established Canadian, US and Australian growth teams

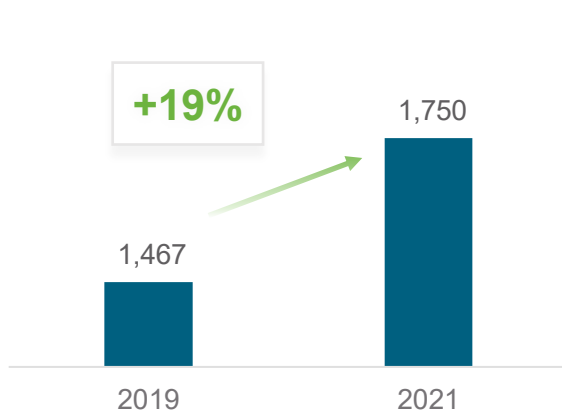
## CARBON TRANSITION

- ✓ 1,600 MW of coal generation retired by end of 2021
- ✓ 1,660 MW of conversions completed by end of 2021
- ✓ Ceased active mining operations by end of 2021
- ✓ Pioneer gas pipeline completed and sold

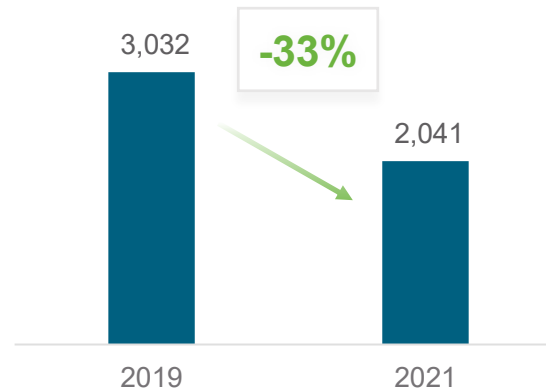
## EMISSIONS REDUCTIONS

- ✓ CO<sub>2</sub> emissions reduced by 61% from 2005
- ✓ Targeting 75% below 2015 levels by 2026
- ✓ Carbon neutrality by 2050

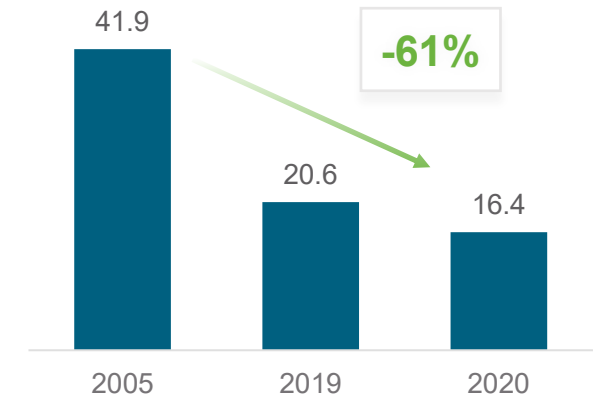
## RENEWABLE CAPACITY (MW)



## ALBERTA THERMAL CAPACITY (MW)



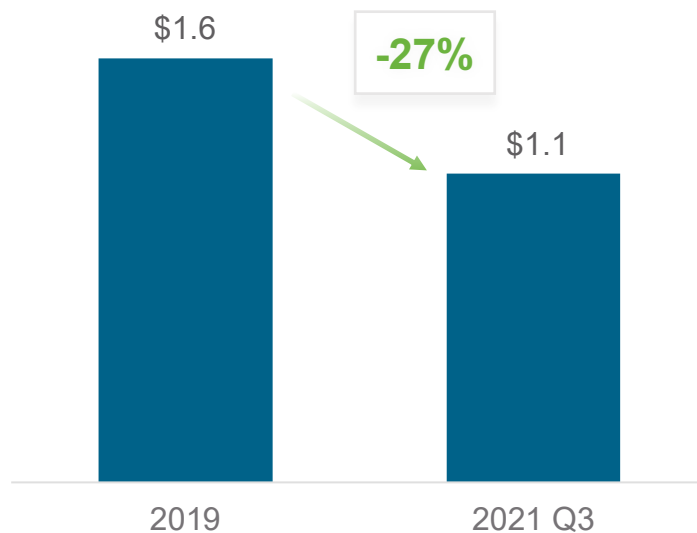
## EMISSIONS REDUCTIONS (MM T CO<sub>2</sub>)



# Strategic Accomplishments Led to Dramatic Evolution

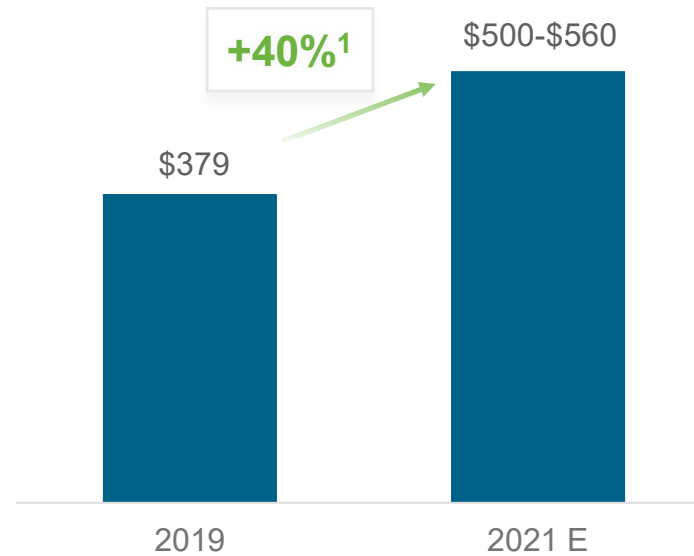
## SENIOR CORPORATE DEBT

(\$ billion)



## FREE CASH FLOW

(\$ million)



## SHARE PRICE

(\$ / share)



**8% annual dividend increase since 2019**

# The Global Race to Decarbonize is On



Global efforts to **decarbonize** are accelerating at a rapid pace  
Strong **political support** gaining momentum with explicit net zero goals



**Technology cost** of renewables and energy storage **declining rapidly** and competing with fossil fuel generation



Corporations are **delivering leadership** by committing to net zero goals  
Investors are **ramping up** clean investments towards net zero push



SIGNIFICANT **INVESTMENT** REQUIRED TO MEET THE CHALLENGE

**\$0.8 trillion – \$1.8 trillion per year**  
**2.5x to 6x** higher than today



**505 GW**  
OF NEW WIND PER YEAR

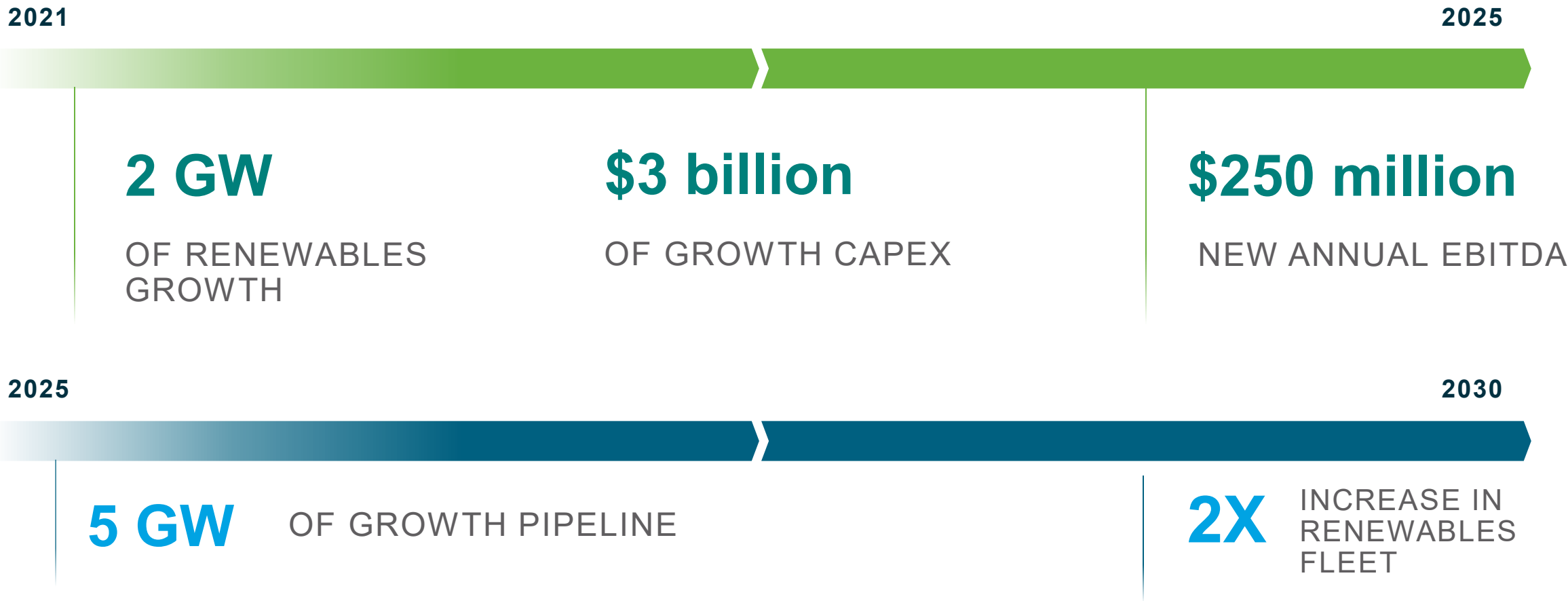


**455 GW**  
OF NEW SOLAR PER YEAR

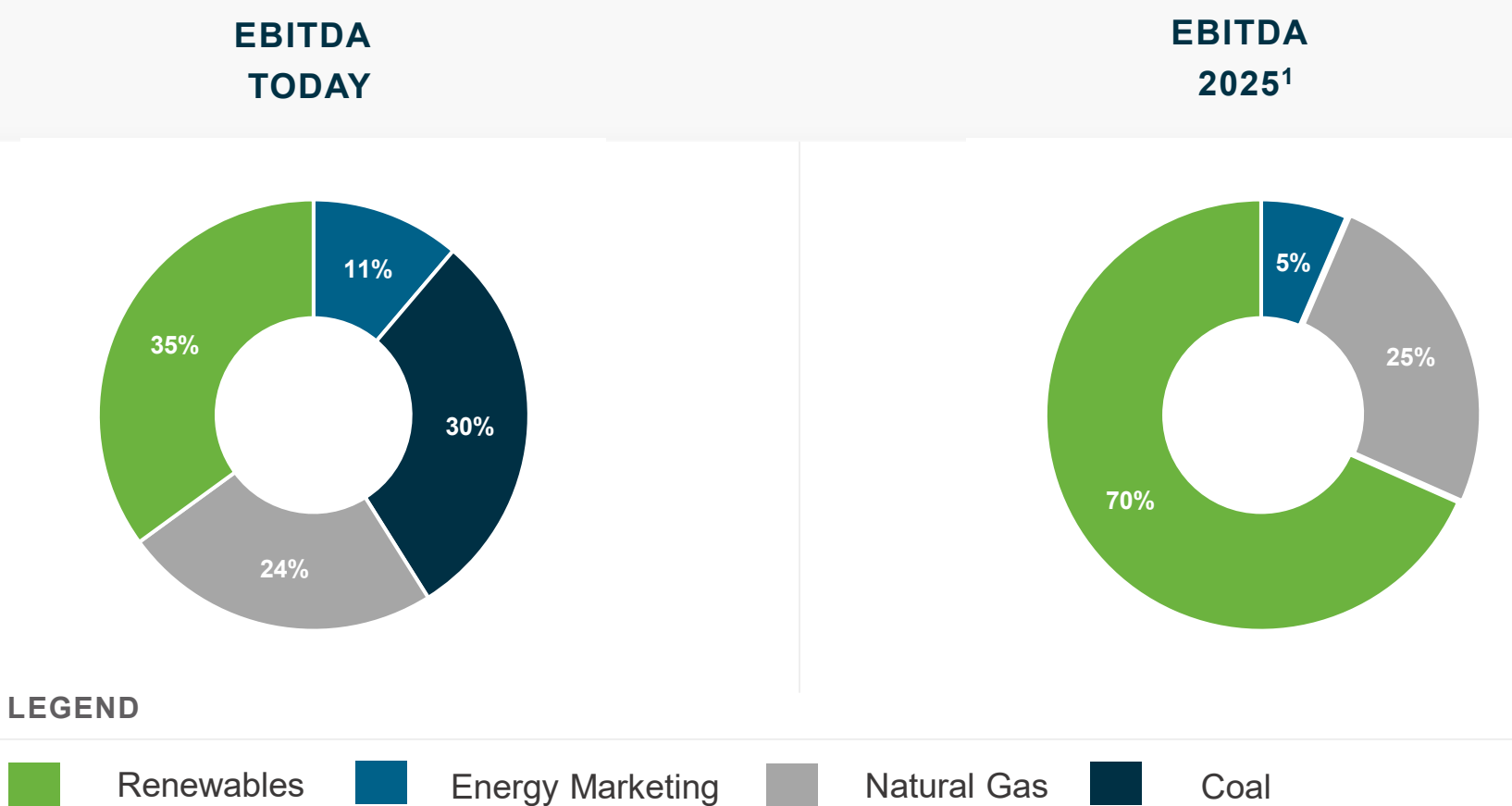


**245 GW**  
OF NEW STORAGE PER YEAR

# Accelerating Renewables Growth: 2021 to 2030



# Our Clean Energy Evolution

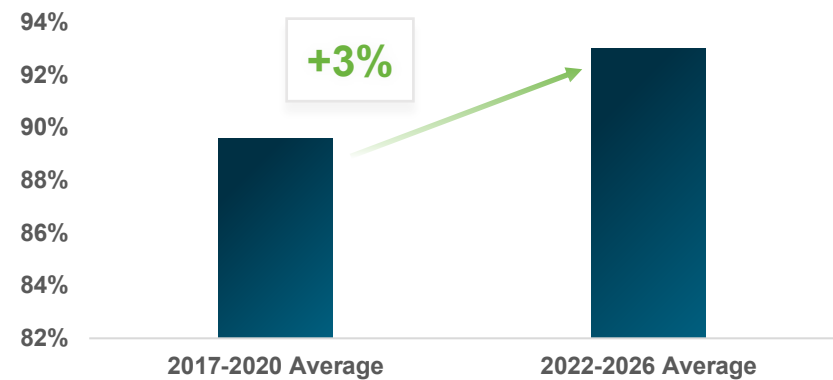


***EBITDA attributable to renewables will reach 70% by end of 2025***

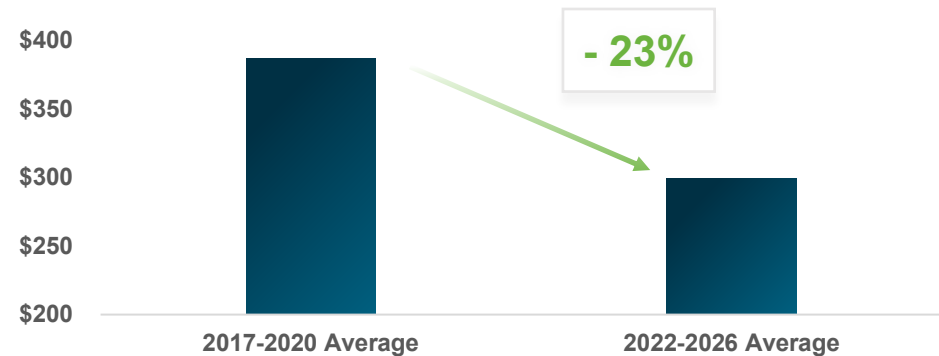


# Operational Excellence: Where We Are Going

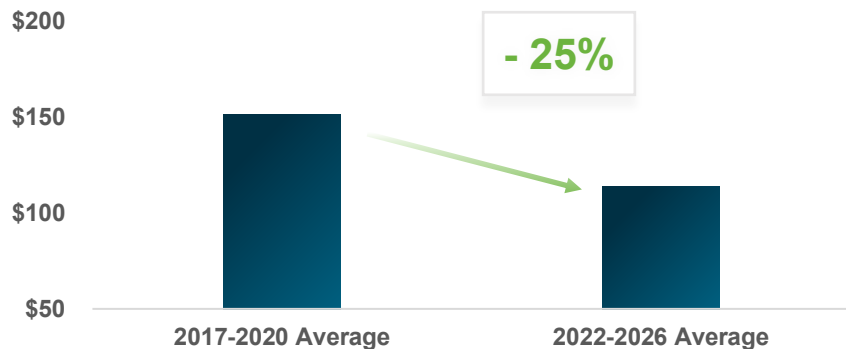
AVAILABILITY



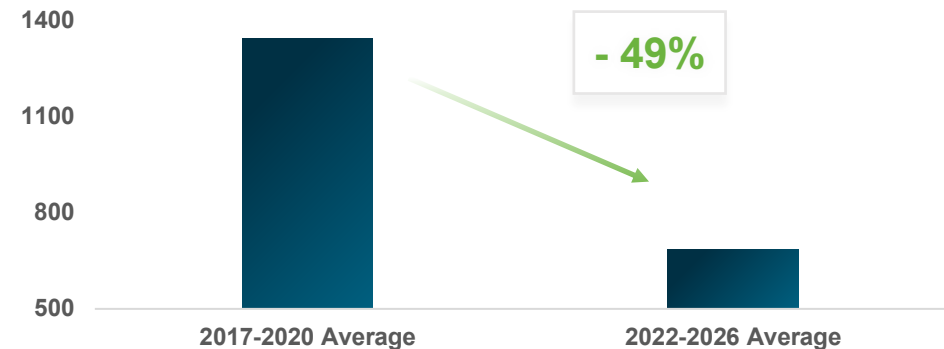
GENERATION OM&A



SUSTAINING CAPEX



GENERATION STAFFING LEVELS



# Our Investment Focus: 2021 to 2025



## RENEWABLES AND STORAGE

- Expand core focus of onshore wind in North America with customer-centred greenfield development
- Establish position in solar targeting the United States, Canada and Australia markets through acquisition
- Establish position in storage, targeting Alberta to meet future grid stability requirements
- Establish position in hybrid solutions in Alberta and Australia with customer-centred focus
- Optimize legacy Alberta Hydro assets and maximize cash flow from fleet



## GAS GENERATION

- Optimize existing gas generation to maximize value and cash flows to support renewables and storage growth



## PARALLEL NEW INVESTMENTS

- Assess parallel ESG or new industry sectors such as water treatment, transmission/distribution and car charging
- Monitor new technologies such as storage, hydrogen and carbon capture technologies for deployment post-2025

***~3 GW of development and three advanced-stage wind projects***

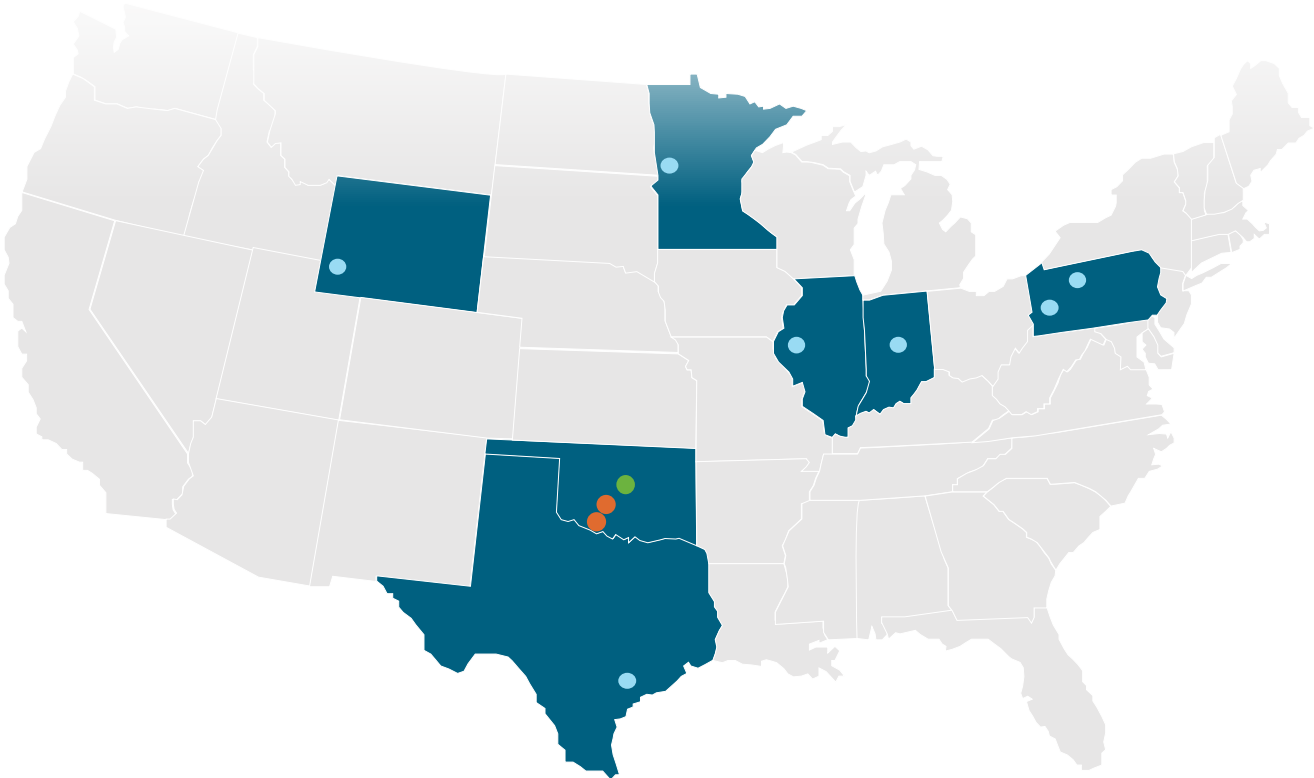
# Our Competitive Advantage: Foundations for Growth

- **Extensive** North American renewables fleet
- Extensive full lifecycle development, optimization and operational **excellence**
- Robust balance sheet and **competitive** cost of capital with TransAlta Renewables



# Development Pipeline

## UNITED STATES



### LEGEND

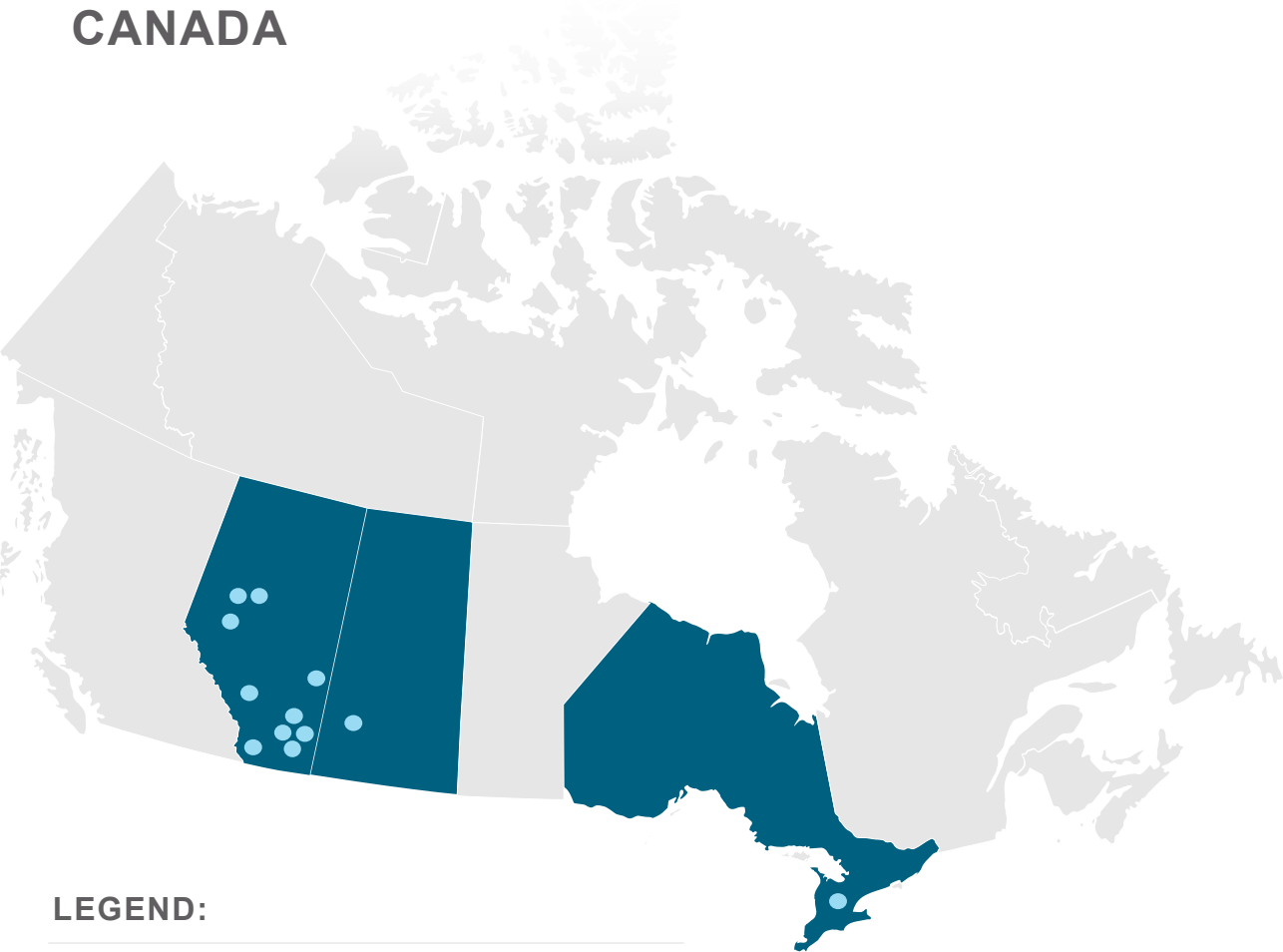
- ADVANCED-STAGE DEVELOPMENT SITE
- EARLY-STAGE DEVELOPMENT SITE
- UNDER CONSTRUCTION

Total All Stages: 1,195 MW

PROJECT	MW	FUEL	LOCATION	STAGE	COD RANGE
Horizon Hill	200	Wind	OK	<div></div>	2023
White Rock East	200	Wind	OK	<div></div>	2023
White Rock West	100	Wind	OK	<div></div>	2023
Prairie Violet	185	Wind	IL	<div></div>	2024-2025
Big Timber	50	Wind	PA	<div></div>	2024-2025
Wild Waters	40	Wind	MN	<div></div>	2024-2025
Coolspring	120	Wind	PA	<div></div>	2025-2026
Wyoming Exp.	100	Wind	WY	<div></div>	2024-2025
Chisholm	100	Solar	TX	<div></div>	2025-2026
Big Blue River	100	Solar	IN	<div></div>	TBD

# Development Pipeline

## CANADA



LEGEND:

- ADVANCED-STAGE DEVELOPMENT SITE
- EARLY-STAGE DEVELOPMENT SITE

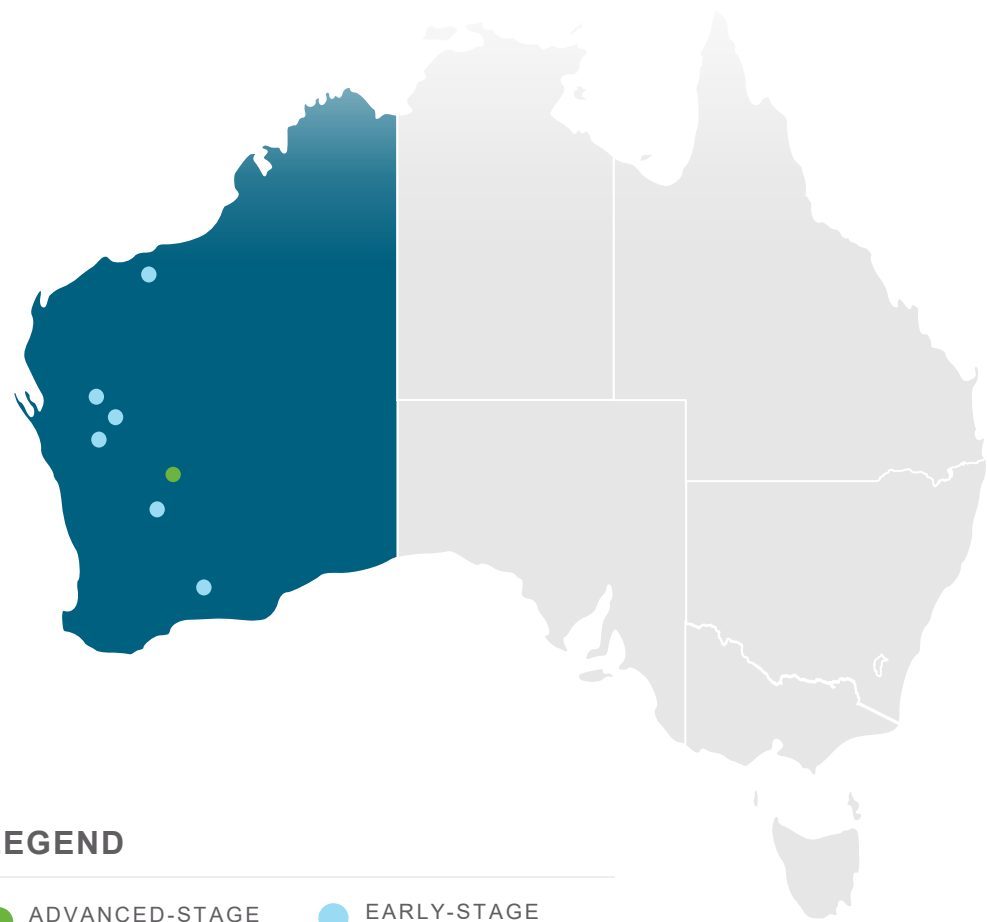
Total All Stages: 1,465 – 2,080 MW

PROJECT	MW	FUEL	LOCATION	STAGE	COD RANGE
Riplinger	300	Wind	AB		2024-2025
Willow Creek 1	70	Wind	AB		2024
Willow Creek 2	70	Wind	AB		2024
Tempest	90	Wind	AB		2024
Alberta Cogen	15-30	Gas	AB		2023
Ontario Cogen	20	Gas	ON		2023
WaterCharger	180	Battery	AB		2023
SunHills Solar	85	Solar	AB		2023
Alberta Solar	85	Solar	AB		2024
Antelope Coulee	200	Wind	SK		TBD
Red Rock	50	Wind	AB		TBD
Brazeau Pumped Storage	300-900	Hydro	AB		2032



# Development Pipeline

## AUSTRALIA



### LEGEND

- ADVANCED-STAGE DEVELOPMENT SITE
- EARLY-STAGE DEVELOPMENT SITE

Total All Stages: 210 – 270 MW

PROJECT	MW	FUEL	LOCATION	STAGE	COD RANGE
Mt Keith Capacity Additions	25 - 50	Gas	WA	<div></div>	2023
New Mine Supply	25	Gas	WA	<div></div>	2024
SCE North Wind	25 - 60	Wind	WA	<div></div>	2023
Higginsville Supply	-	Transmission Line	WA	<div></div>	2024
South Hedland Solar	50	Solar	WA	<div></div>	2022
New Mine Supply	85	Gas	WA	<div></div>	2025

# Windrise

## Project Highlights

<b>Location</b>	Ft Macleod, Alberta	<b>Contracted</b>	100%
<b>Size</b>	206 MW	<b>Customer</b>	AESO
<b>Technology</b>	SiemensGamesa v4.8 - 145	<b>Term</b>	20 years
<b>COD</b>	November 2021	<b>EBITDA</b>	\$20-\$22 million

All turbines commissioned and now in operation

Transmission interconnection fully complete and commissioned

Work successfully competed through the pandemic

*Our 10<sup>th</sup> wind facility in Alberta*



Now in commercial operations



# Garden Plain

## Project Highlights

<b>Location</b>	Hanna, Alberta	<b>Contracted</b>	77%
<b>Size</b>	130 MW	<b>Customer</b>	Pembina
<b>Technology</b>	Siemens Gamesa SG5.0-145	<b>Term</b>	18 years
<b>COD</b>	H2 2022	<b>EBITDA</b>	\$14-\$18 million

Alberta Utilities Commission permits have been secured for the wind and interconnection facilities

Detailed engineering ongoing with full geotechnical complete

Advanced negotiations underway for the remaining 30 MW capacity

***Our 11<sup>th</sup> wind facility in Alberta***



**Construction activities now underway**





# Northern Goldfields

## Project Highlights

<b>Location</b>	Western Australia	<b>Contracted</b>	100%
<b>Size</b>	48 MW	<b>Customer</b>	BHP
<b>Technology</b>	Solar PV & Battery	<b>Term</b>	16.3 years
<b>COD</b>	H2 2022	<b>EBITDA</b>	\$8-\$9 million

Reduces BHP's Scope 2 emissions by up to 12% at Mount Keith and Leinster

Comprised of 38 MW solar portfolio and 10 MW/5 MWh battery energy storage system

First major growth project under extended PPA executed in 2020

***Our 1<sup>st</sup> renewable project in Australia***



Construction activities underway



# North Carolina Solar

## Portfolio Highlights

<b>Location</b>	North Carolina	<b>Contracted</b>	100%
<b>Size</b>	122 MW	<b>Customer</b>	Duke Energy
<b>Technology</b>	Solar PV	<b>Term</b>	12 years
<b>Acquisition</b>	November 5, 2021	<b>EBITDA</b>	US\$9 million

Acquisition cost of US\$99 million

Expected production of approximately 195,000 MWh per year

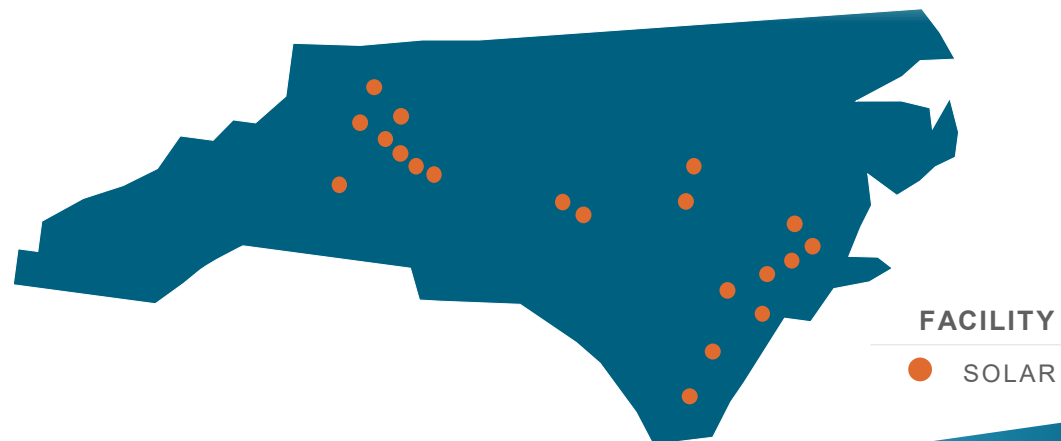
Long term contracted cashflows with investment grade counterparties

20 operating facilities across North Carolina ranging in size from 3.2 MW to 6.7 MW

***Our 2<sup>nd</sup> solar portfolio in the US***



**COD dates ranging from Nov. 2019 to May 2021**





# White Rock East and West

## Project Highlights

<b>Location</b>	Caddo County, OK	<b>Contracted</b>	100%
<b>Size</b>	300 MW	<b>Customer</b>	PPA Executed
<b>Technology</b>	Vestas V162 6.0 - 162 Vestas V136 3.45 - 136	<b>Term</b>	TBA
<b>COD</b>	H2 2023	<b>EBITDA</b>	US\$44 million



On-site construction to begin in later 2022

White Rock East and White Rock West will collectively be TransAlta's largest wind facility

Provides a significant step towards 2 GW target

Consists of 51 Vestas turbines between both sites

*Our 6<sup>th</sup> and 7<sup>th</sup> wind facilities in the US*



# Alberta Business

## MAXIMIZE

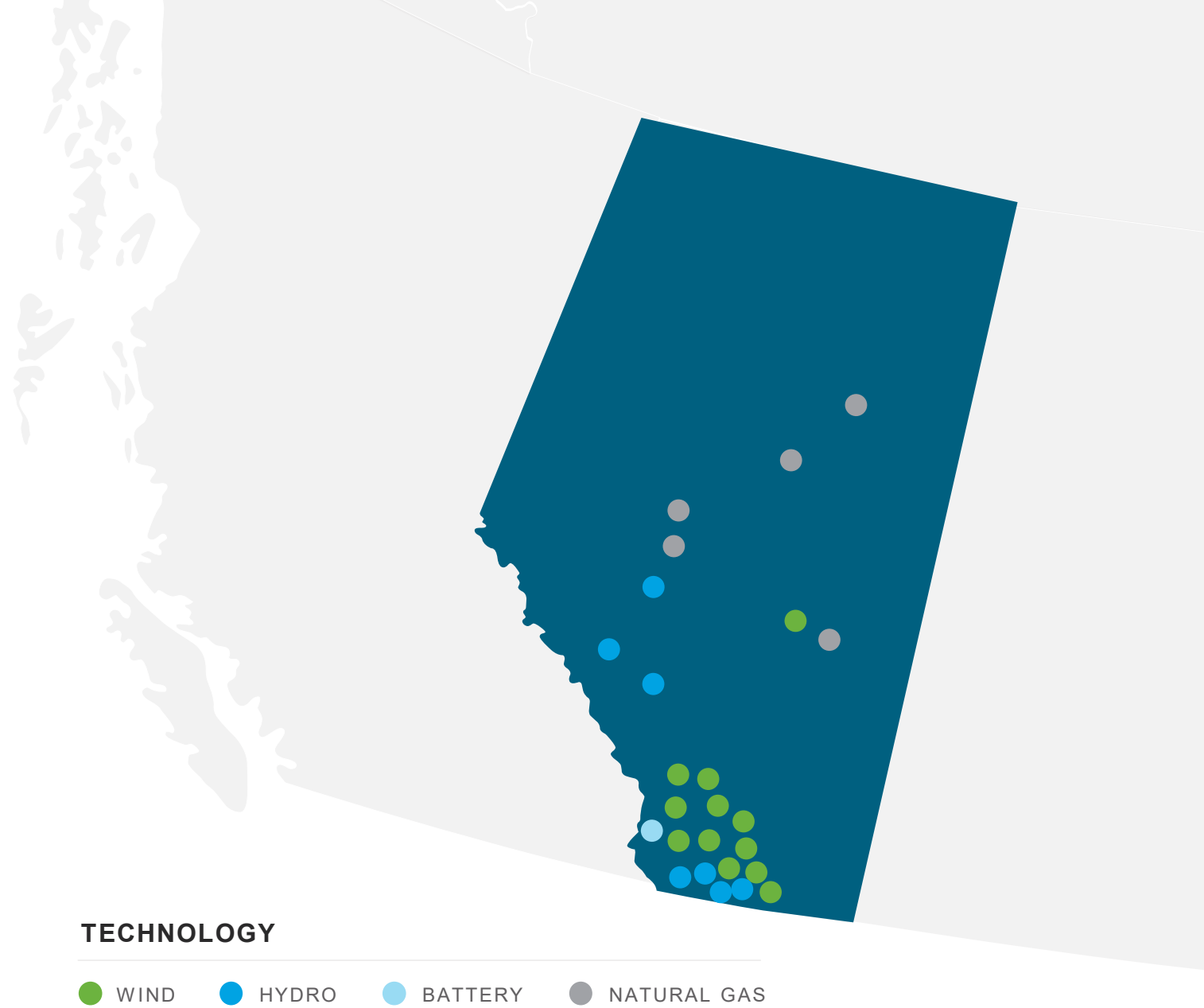
shareholder returns through  
**active management** of our  
**diversified** merchant **portfolio**

## PROVIDE

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

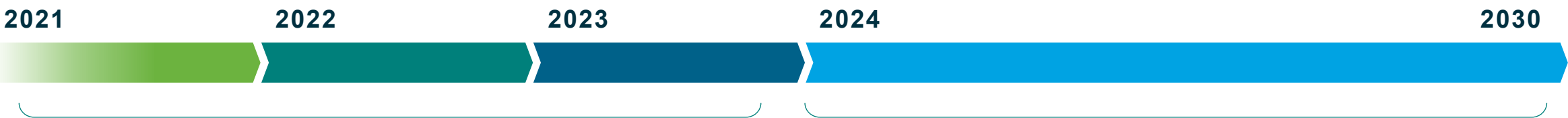
## IDENTIFY

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



# Alberta Merchant Market is Evolving

- Load growth moderating
- Strong customer demand for renewables and storage
- Cost of carbon emissions increasing
- CCS/CCUS solutions costly and uncertain
- Significant supply additions
  - ~8,500 MW of gas, wind and solar planned or under construction
  - ~2,500 MW of storage planned or under construction



HIGHER AVERAGE PRICING

## Moderate Volatility

- Baseload Generation
- Merchant exposure
- Optimization

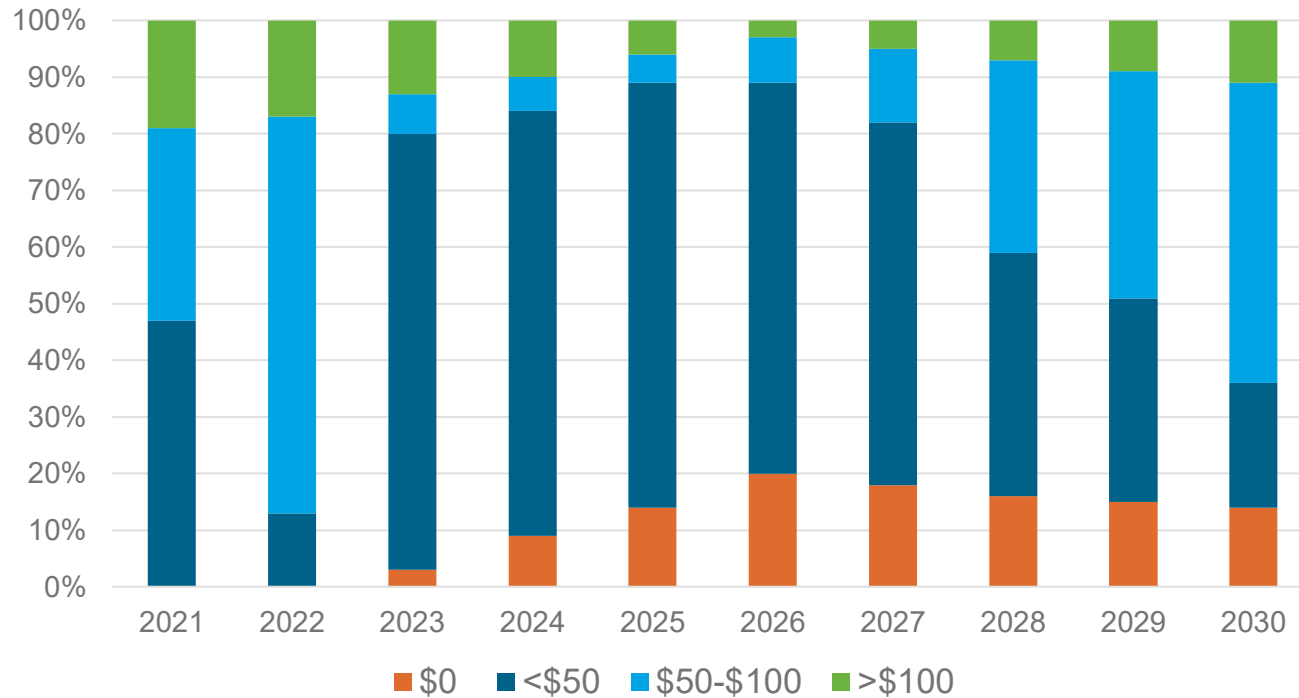
LOWER AVERAGE PRICING

## Higher Volatility

- Fleet diversity
- Low carbon footprint
- Peaking generation
- Hedging and optimization
- Ancillary services

# Price Volatility Expected to Increase

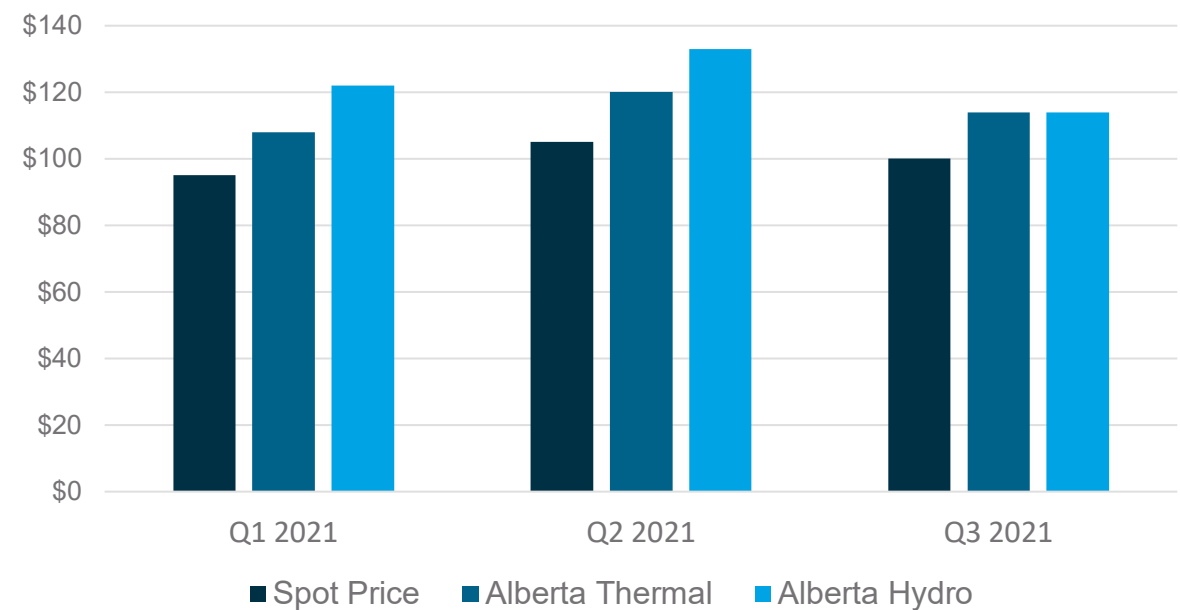
FORECASTED POWER PRICE LEVELS (\$ / MWH)



- Number of \$0 hours expected to increase
- TransAlta well-positioned to compete in \$50+ zone

# Hydro and Unhedged Thermal Realized Prices in Alberta

2021 UNHEDGED REALIZED PRICES (\$ / MWH)



23%

ALBERTA HYDRO  
AVERAGE PREMIUM

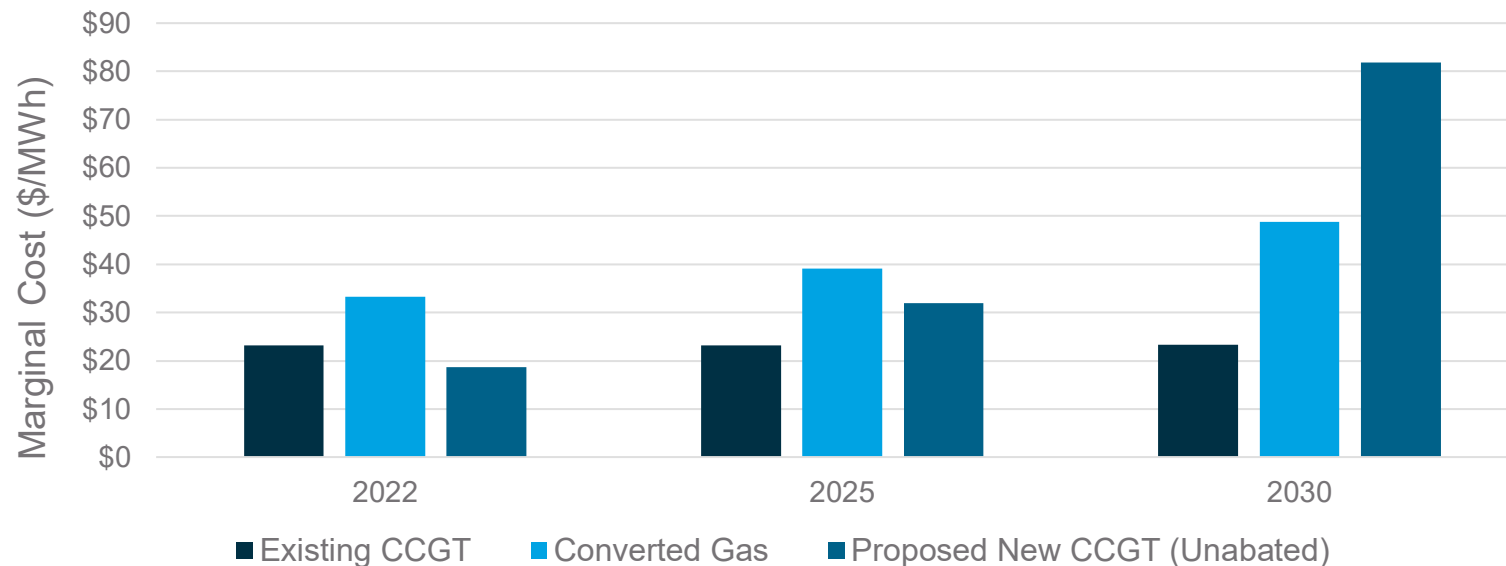
14%

ALBERTA THERMAL  
AVERAGE PREMIUM



# Performance Standard Change Makes CTG More Competitive

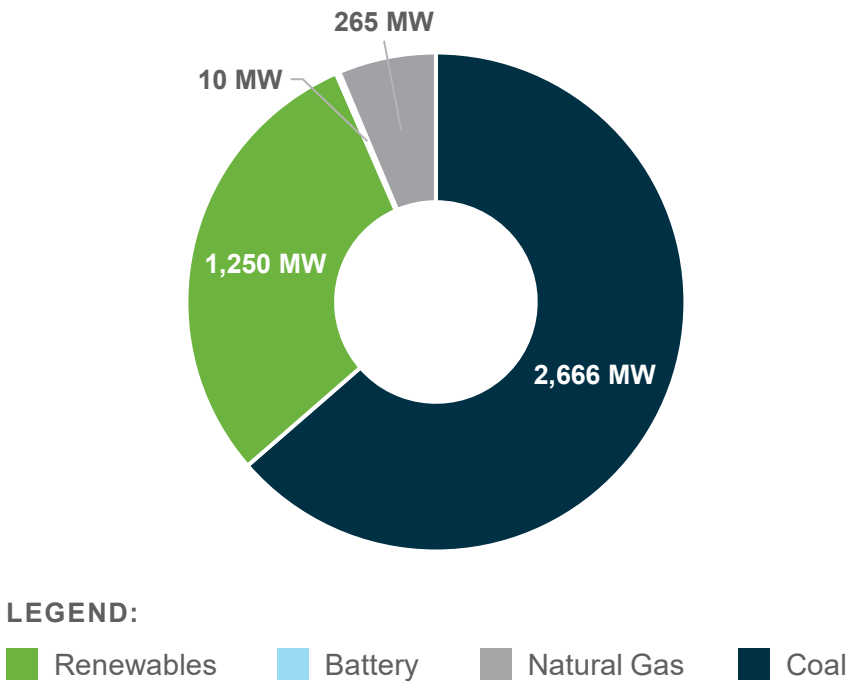
## MARGINAL COST UNDER EVOLVING PERFORMANCE STANDARD



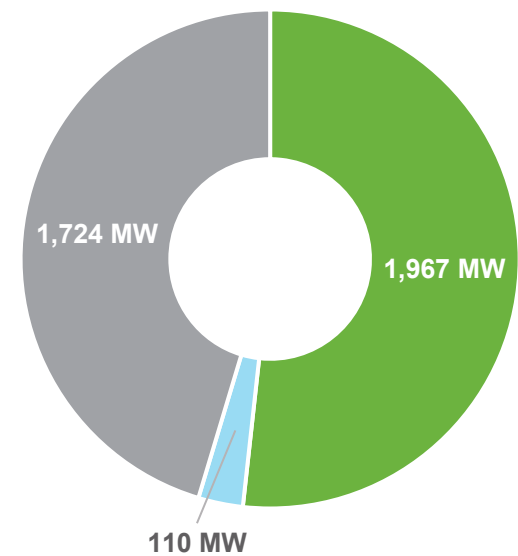
***Converted gas (CTG) to have lower variable costs under more stringent policy***

# Our Evolving Position in the Alberta Market

2020 REPORTED



2025 WITH GROWTH<sup>1</sup> AND RETIREMENTS<sup>2</sup>



Well-positioned to perform in energy-only market

<sup>1</sup>Growth includes Windrise, Garden Plain, Riplinger, SunHills Solar and Watercharger

<sup>2</sup>Includes the suspension of Sundance Unit 5 and the retirements of Sundance Unit 4 and Keephills Unit 1

# Disciplined Capital Allocation

## Factors Impacting Risk Premium

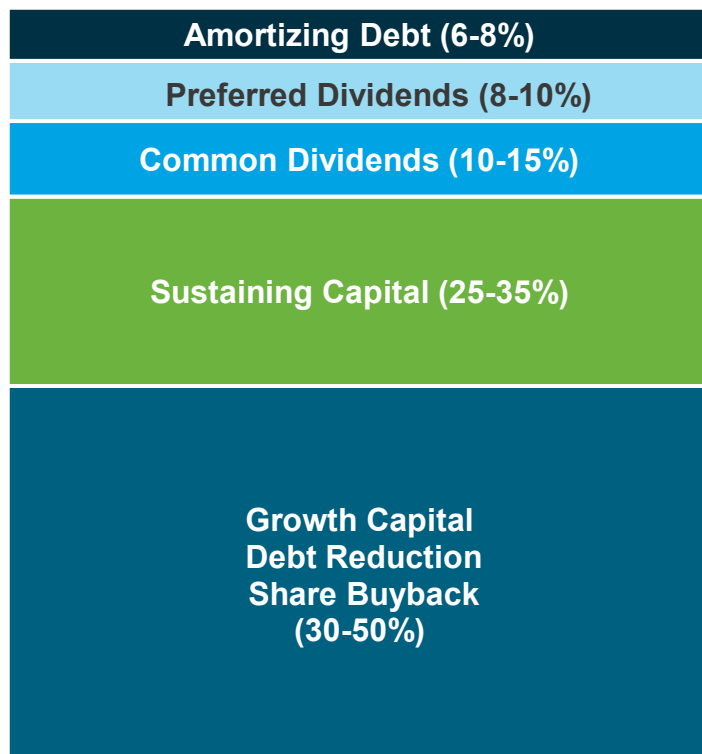
Project Development  
Technology  
Economies of Scale  
Future Business Synergies  
Operational Synergies  
Counterparty Quality  
Contract Tenor  
Merchant Exposure  
Geography  
Regulatory Exposure  
Inflation Exposure  
Capital Recovery



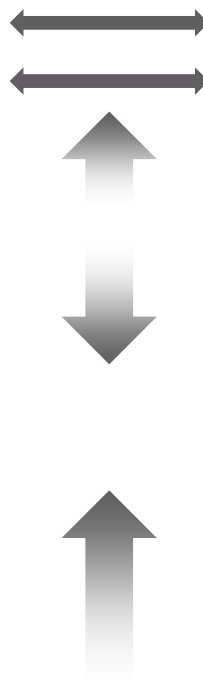
***Our ability to identify and capture value drives enhanced portfolio returns***

# Prudent Capital Allocation

## DECONSOLIDATED FFO<sup>1</sup>



## 5-YEAR TREND



Improving performance provides increased allocation to:



Growth



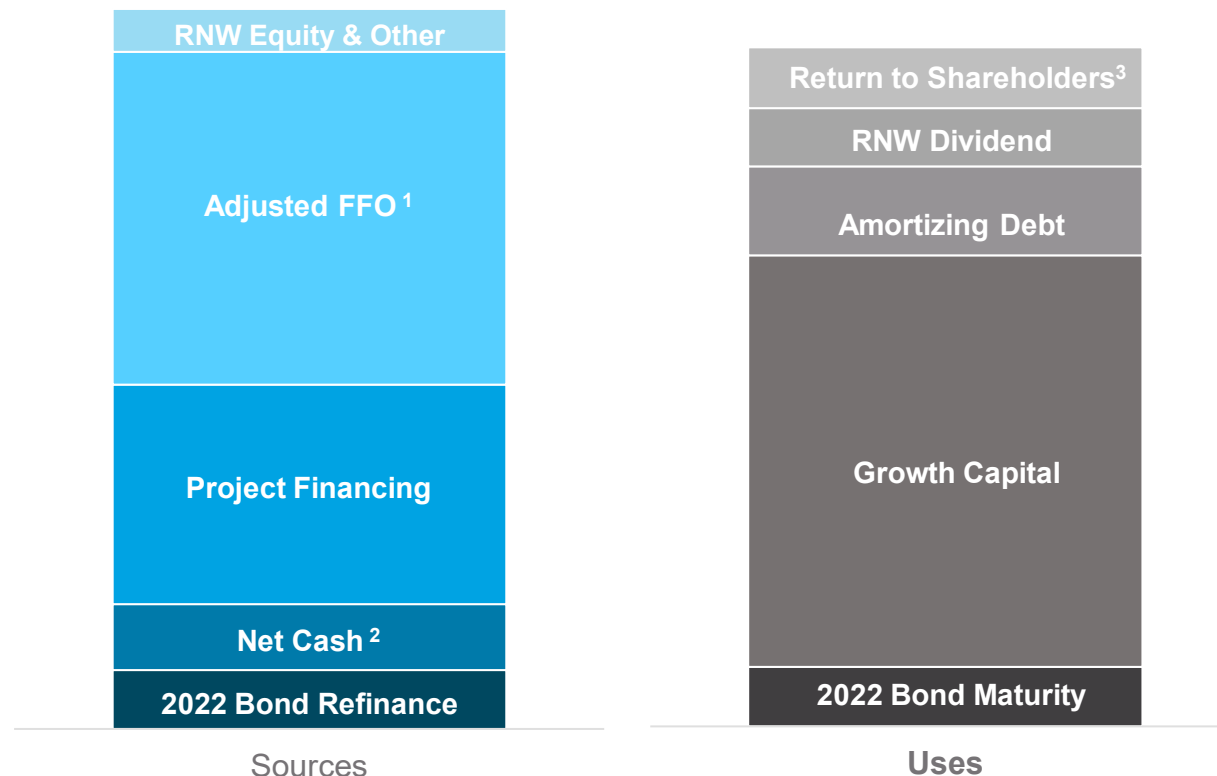
Dividends



Share Buybacks

# Growth Plan is Fully Funded

## CONSOLIDATED SOURCES AND USES 2021-2025



***2 GW growth plan fully funded with cash flow and asset-level financing***

<sup>1</sup>Adjusted FFO is equal to FFO, less sustaining capital, lease obligations and distributions to NCI (excluding RNW public NCI).

<sup>2</sup>Net Cash is equal to cash less credit facility as of December 31, 2020

<sup>3</sup>Includes common share dividend, dividend on preferred shares and share buybacks

# Sustainability Target Highlights



## ENVIRONMENTAL GOALS

- End coal generation by 2021 in Canada and 2025 in US
- Reduce GHG emissions by 75% from 2015 levels by 2026
- Carbon neutral by 2050



## SOCIAL GOALS

- Support Indigenous communities
- Reduce safety incidents
- Reclaim mined land in Alberta and Washington State



## GOVERNANCE GOALS

- 50% female representation on the Board by 2030
- 40% female employment across the company by 2030
- Equal pay for women in equivalent roles as men
- Remove systemic barriers across the organization
- Demonstrate leadership on ESG reporting within financial disclosures

***Our sustainability goals and targets support the long-term success of our business***



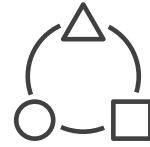
# Strategic Priorities to 2025

## Clean Electricity Growth Plan

- 1 Accelerate growth into customer-centred renewables and storage
- 2 Targeted approach to diversification
- 3 Maintain financial strength and capital allocation discipline
- 4 Define next generation of power solutions
- 5 Lead in ESG policy development
- 6 Successfully navigate through COVID-19 pandemic



# Our Value Proposition



**Diversified and  
resilient fleet**

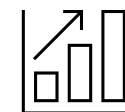


**Clean power leader  
with ESG focus**

**~3 GW  
growth pipeline**



**Strong  
financial position**





# Questions & Answers

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