Investor Presentation
June 2022

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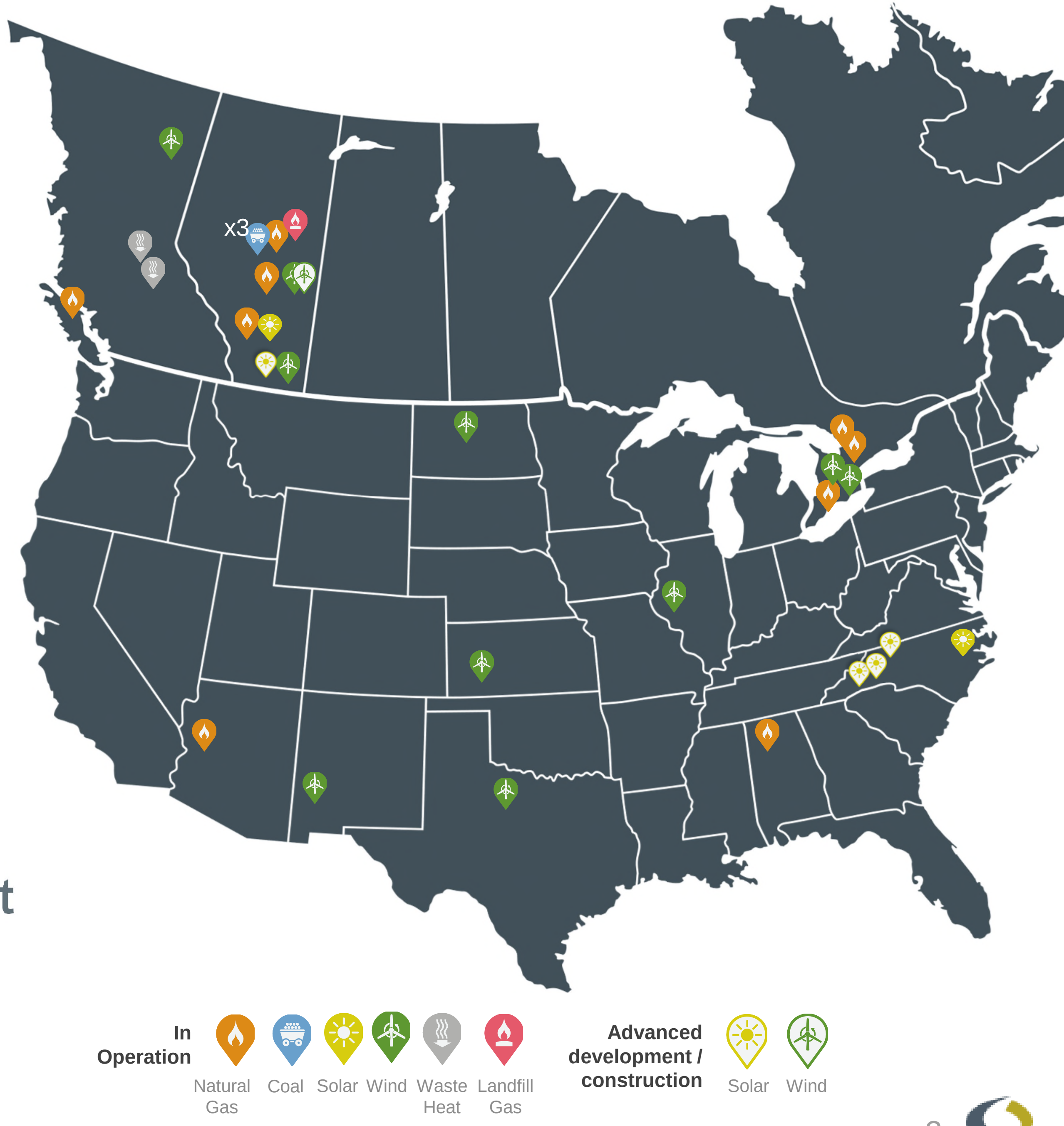
Capital Power

Growth-oriented North American energy transition company

- Highly-contracted, young and diversified portfolio
- Well-positioned assets and trading expertise in the attractive Alberta power market
- Off coal in 2023 and targeting net carbon neutral before 2050
- Annual dividend growth with 5% guidance to 2025
- Targeting 10-12% total shareholder return; 18% average annual TSR in past 5 years

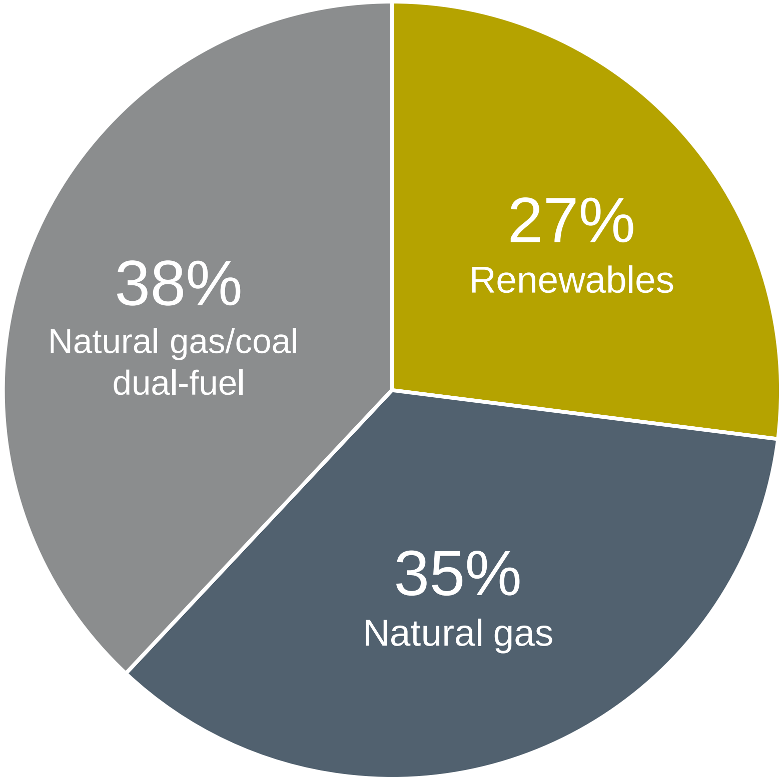
Operations & projects under development

- 27 operating facilities totaling ~6,600 MW
- 5 renewable projects and Genesee 1&2 repowering project adding ~900 MW by 2024



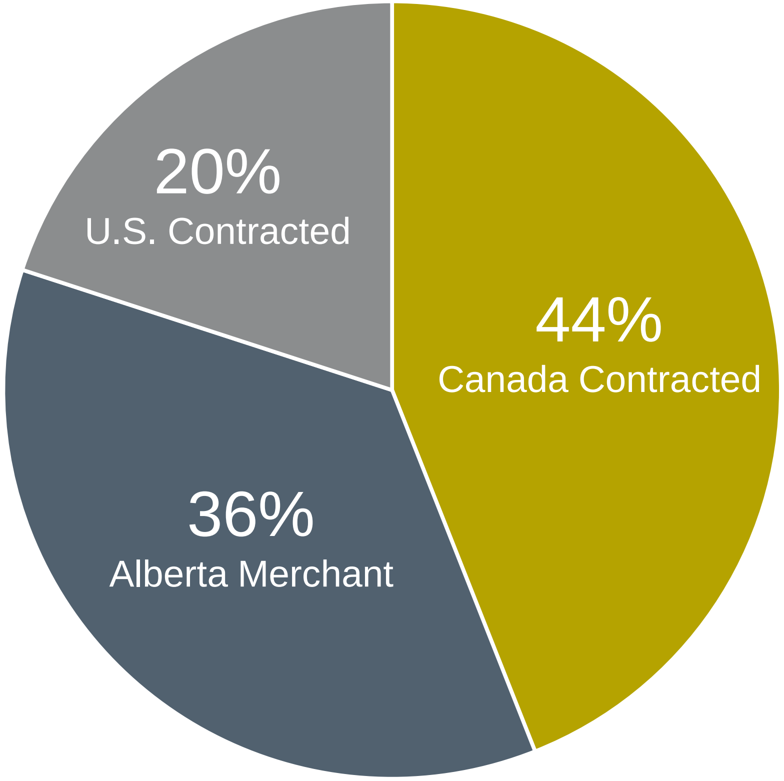
Business mix overview

Fuel Type[1]



Clean natural gas and renewable projects in development will replace dual-fuel in 2024

Contracted versus Merchant[1]



Average PPA term remaining of ~9.7 years[2]

1) Percentage breakdown based on the midpoint of original 2022 adjusted EBITDA guidance range of $1.11 billion to $1.16 billion.
2) Based on megawatt weighting.

Our strategy and path to net carbon neutral by 2050

Investing in emissions free renewables

Building and acquiring facilities in Canada and the U.S.

Integration of storage technologies

Investing in critical natural gas generation

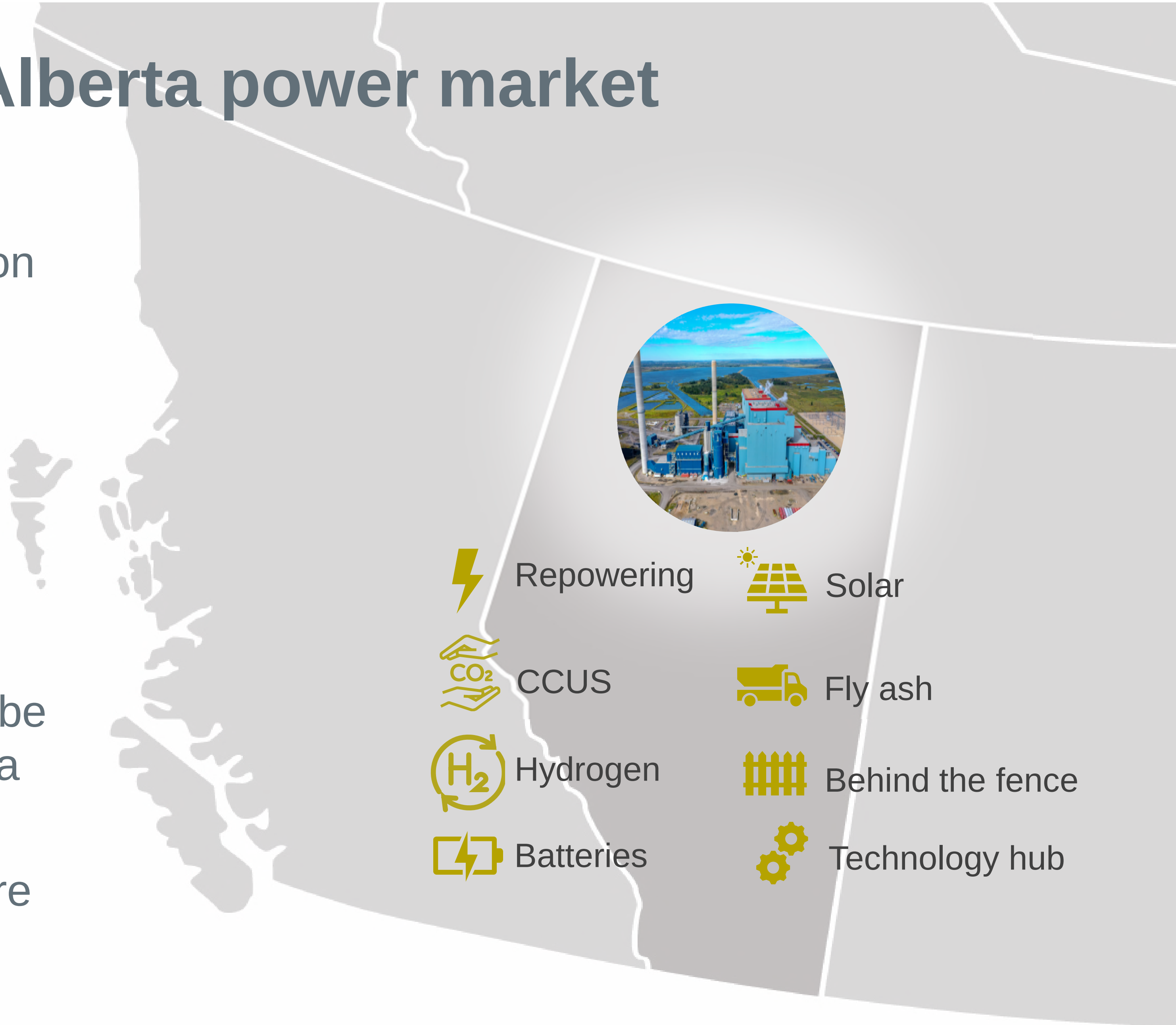
Acquiring key facilities in Canada and the U.S.

Repower coal units to 100% natural gas capability

Reduce emissions profile through decarbonization technologies

A market leader in the Alberta power market

- Continue to reposition and optimize assets to maintain leadership position
- Largest provider of new generation over the last 20 years
- Leading developer and owner of renewables in the province
- Leading efforts to decarbonize thermal generation in the province
- Repowered Genesee 1&2 units will be most efficient NGCC units in Canada
- Genesee Energy Centre will be the heart of Alberta's decarbonized future



Renewable and storage acceleration

COD of Whitla Wind 2 in Dec/21 and 100% contracted as of Apr/22

Halkirk Wind phase 2 (151 MW) commencing

Secured 1,298 MW of U.S. solar sites with battery potential

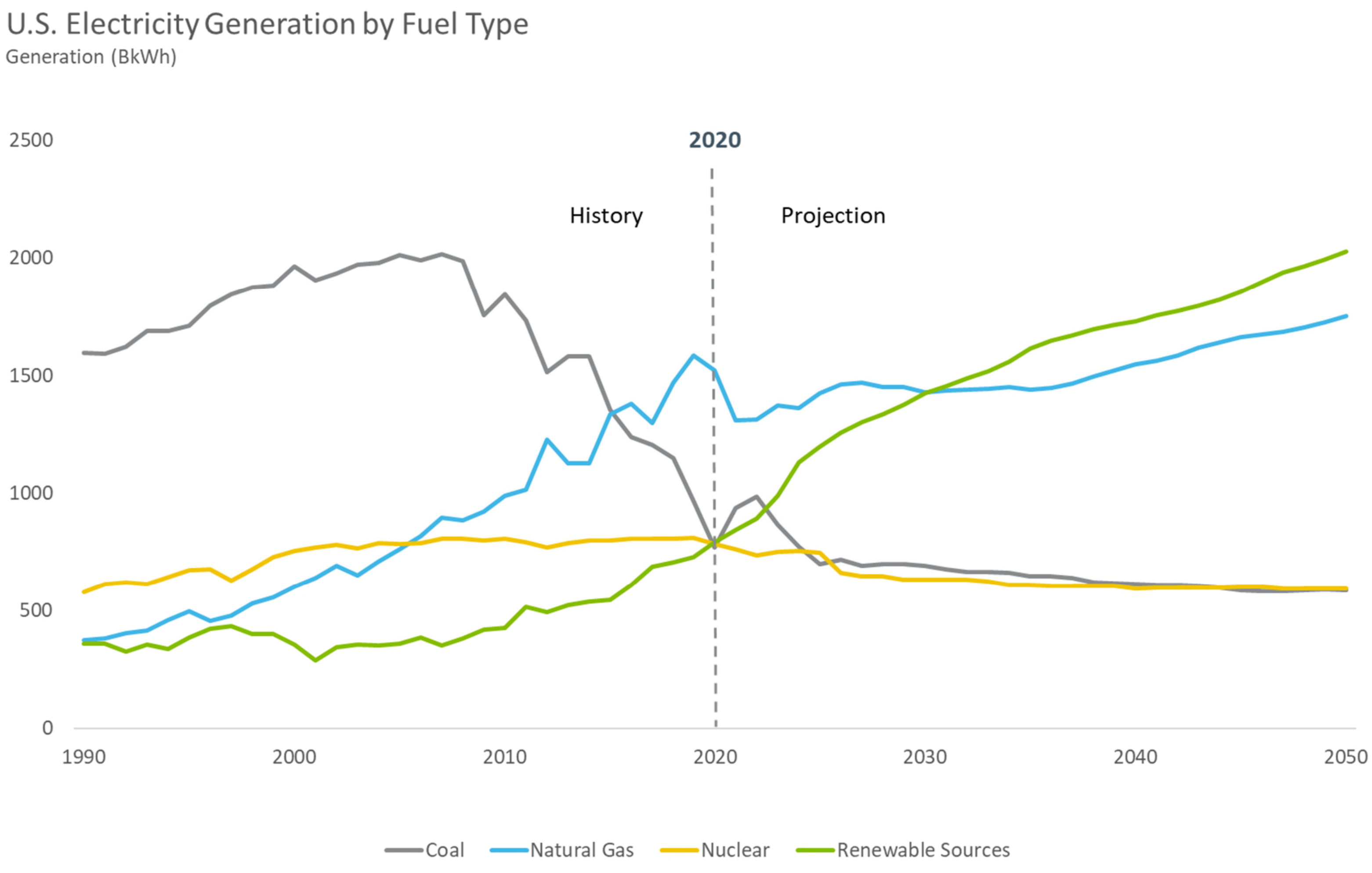
COD of Strathmore Solar in Q1/22, Enchant Solar expected in Q4/22

North Carolina solar projects COD expected in Q4/24

Long-term contracting of renewables in Alberta continues to be strong

Natural gas – necessary long-term role in power

- Natural gas essential to maintain system reliability and integrate renewables
- Decarbonization will be essential to long term resiliency
- Role of natural gas will transition from serving baseload energy requirements to serving capacity
- Well positioned natural gas sites are excellent future energy storage sites
- Responsible investments in strategic natural gas assets essential to long term decarbonization



Source: US Energy Information Administration, Annual Energy Outlook 2021

Significant progress on Genesee CCS Project

Increasing policy certainty to proceed

Alberta CCUS hub

- ✓ Government of Alberta selected Enbridge's "Open Access Wabamun Carbon Hub"
- ✓ Completed pre-FEED study
- ✓ FEED study activities proceeding
- Genesee CCS Project expected to capture up to 3 million tonnes of CO_2 annually
- FID expected by mid-2023

CCS financial support

- $1.8 - $2.0B project cost
- ✓ 2022 Federal Budget proposed refundable CCUS investment tax credits (ITC)
- Ongoing discussions with Canada Infrastructure Bank on framework for financing
- Expect First Nations participation
- Other potential partnerships

Carbon policy de-risking

- Required for Genesee CCS to advance
- General appreciation by governments that long-term policy uncertainty presents unique risks to investments in CCS
- *"2030 Emissions Reduction Plan*" noted Federal Government intention to explore measures to provide greater certainty regarding carbon pricing to de-risk private sector investments

Growth strategy

- Growth strategy aligns with our sustainability goals
- Decarbonization is an immense opportunity for gas and renewables technologies
- Strong renewable growth pipeline in Alberta and the U.S.
- Demonstrating success in recontracting natural gas assets

Positive growth outlook

Ontario thermal assets well-positioned

- IESO Annual Acquisition Report identifies incremental capacity needs of 2,500 MW by 2027 and an additional 1,500 MW by 2030
- Creates significant opportunities for either expansion of existing assets or addition of batteries
- Assets well-positioned for recontracting in regions with significant needs

U.S. solar and storage pipeline

- Continue to advance sites
- Expect to begin actively marketing more advanced facilities

Increasing M&A activities

- Seeing significant opportunities for both thermal and renewable assets

Managing inflationary & supply chain cost pressures

Operating costs

- Expect modest increase of ~$2 million on operations in 2022 from LTSA and PPAs (largely escalate with CPI)

Genesee 1&2 repowering project

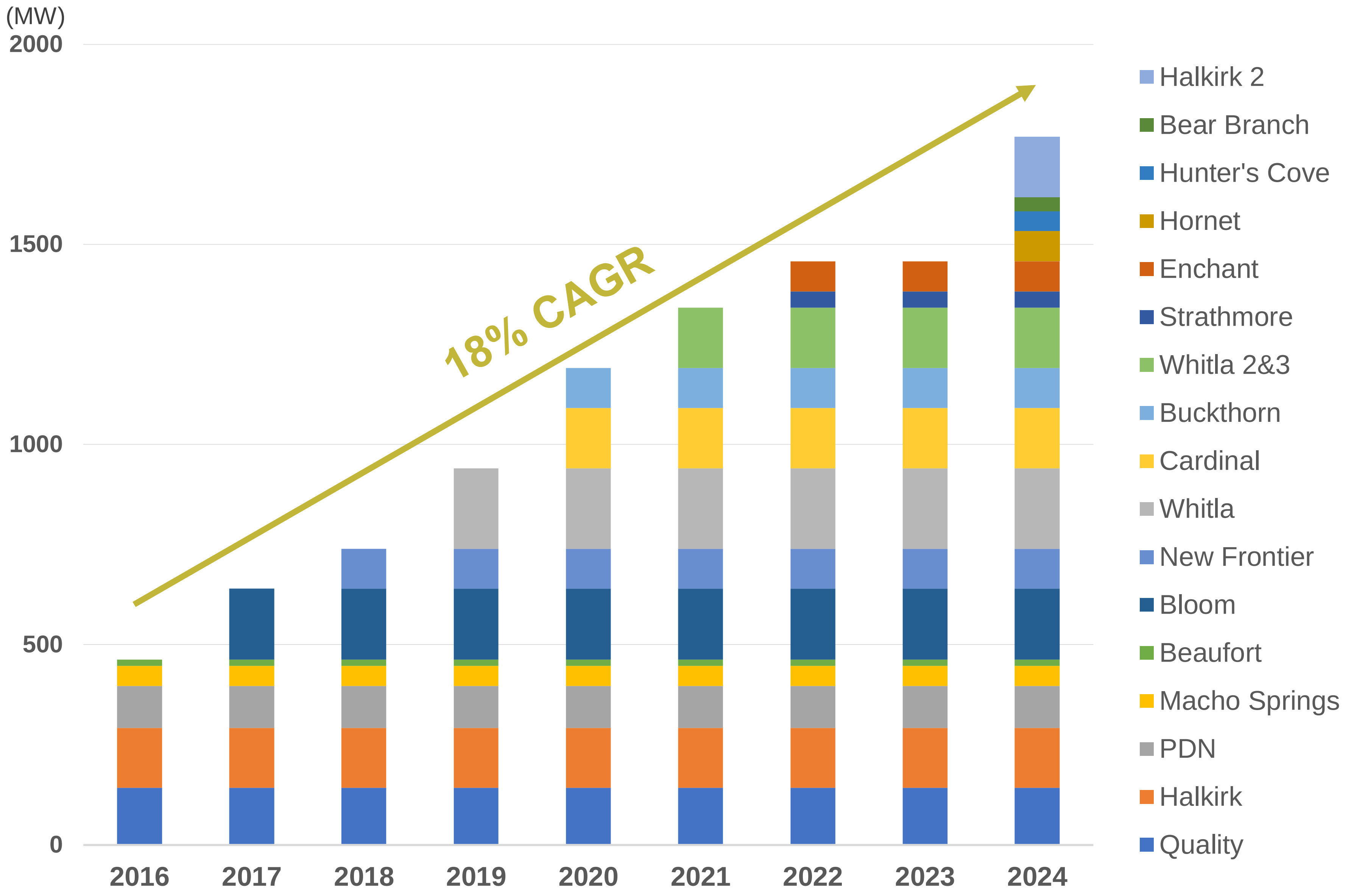
- ~90% of $1.2 billion project cost are locked in
- Balance of costs forecast to be on budget and project remains on schedule

4 solar projects (Enchant in Alberta, 3 in North Carolina)

- Cost pressures mostly from higher transportation costs for freight
- Expect current high costs to alleviate to more reasonable levels in the future – COD for 3 North Carolina solar projects not expected until Q4/24
- Future renewable projects (including Halkirk Wind 2) to reflect higher costs in offtake agreements as it impacts all developers

Impacts on project returns isolated to two solar projects in development

Consistent substantial growth in renewables



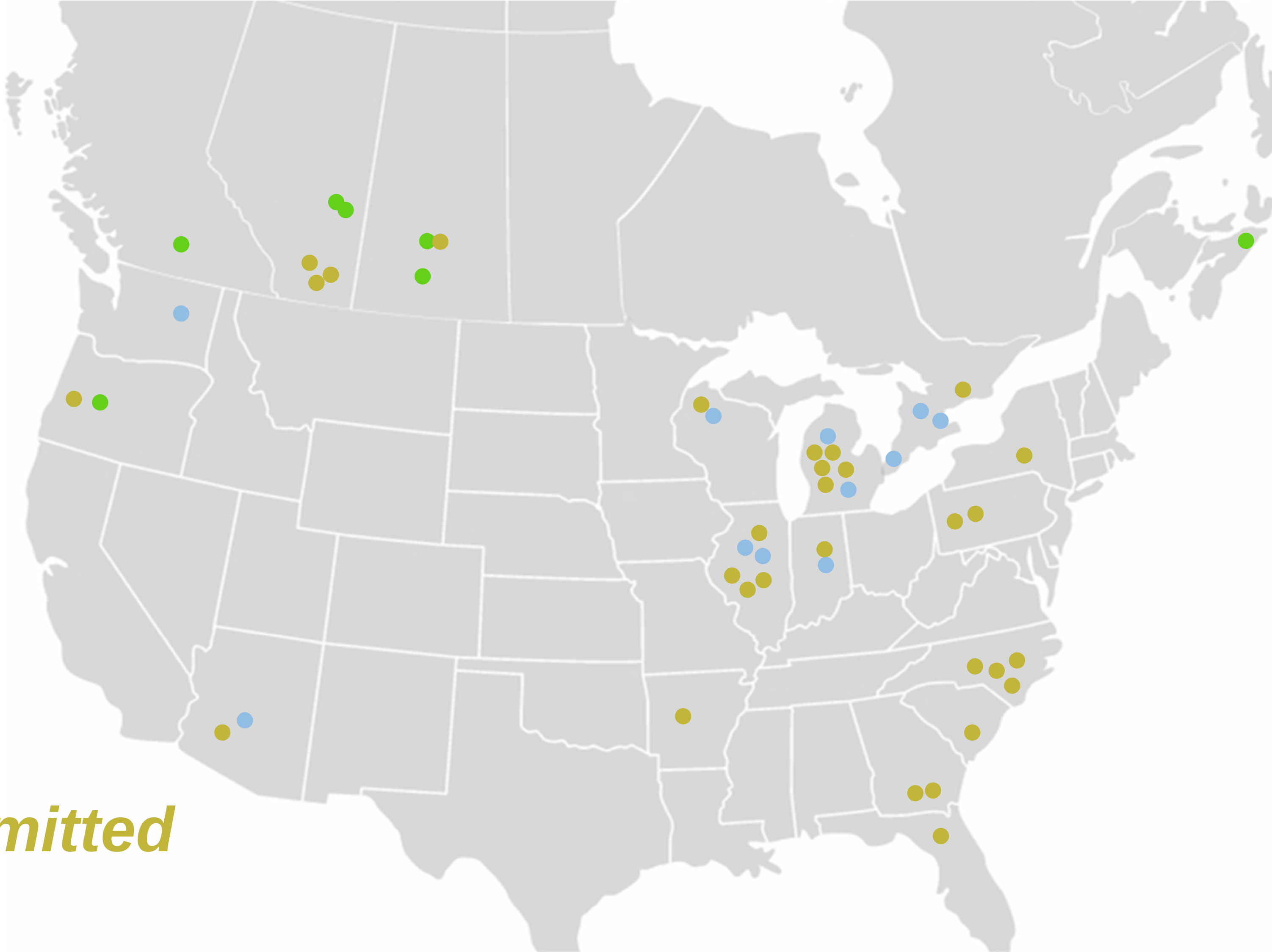
Development pipeline supports sustainable growth

3,300+ MW generation

- Wind (~1000 MW)
- Solar (~2300 MW)

3,350 MWh battery storage

- Battery Storage



Targeting $500M of committed capital for growth

Recontracting of natural gas assets

Securing long term PPAs provide stable cash flows

Extended enhanced Decatur contract by 10 years to 2032.

Extended tolling agreement by 6 years to 2031 with materially higher AFFO over extended term.

Executed 4.5-year contract renewal with BC Hydro to Oct/26. Continue to advocate for longer-term recontracting as part of BCUC's IRP review process based on its role of providing backup power and grid reliability.

Developments in Ontario very positive for recontracting in 2030. Current PPA expires in 2029.

Next contract expiry not until 2029 at Goreway

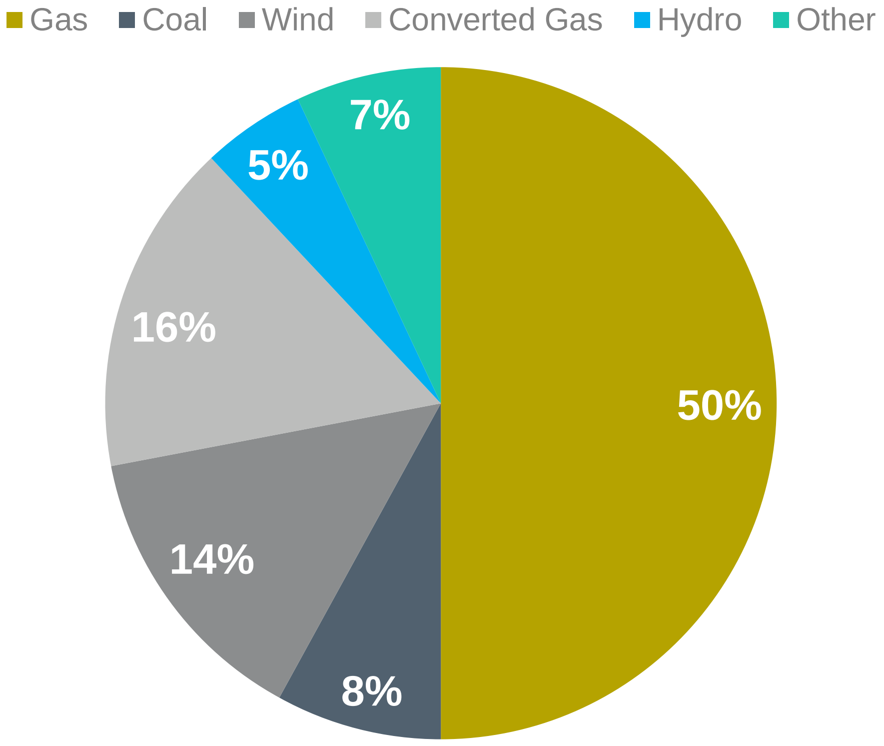
Alberta power market

- Demand fully recovered from COVID-19 and low oil prices
- All-time summer and winter record demand set in 2021
- Demand expected to increase modestly year-over-year
- Robust market with average power price of $102/MWh in 2021 and ~$117/MWh in 2022 (based on May YTD actuals & forward prices)

Alberta power market

Need for reliable, flexible natural gas capacity

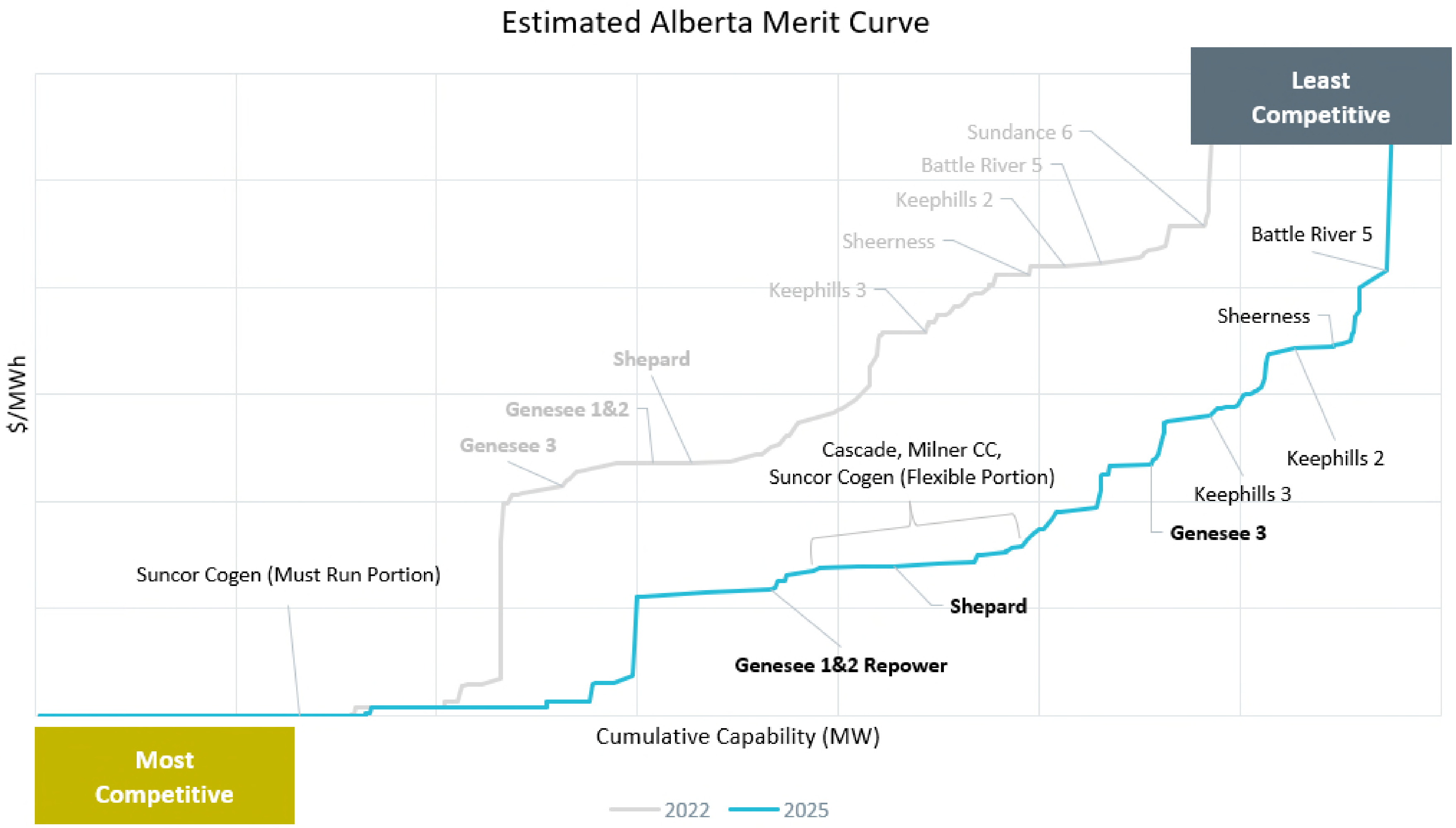
AESO capacity by technology



- Today there is still **4,000 MW** of inefficient coal, converted coal, or dual fuel capacity
- Peak winter and summer load hours in 2021 saw **~85% of load being met with coal and gas**
- Peak winter and summer load hours saw wind and solar operating at **only 12% and 19%** of their respective capacities
- System can accommodate higher renewable penetration, but lower capacity factors will still result in the **need for reliable, flexible natural gas capacity**

Source: AESO Jan 2022

Repositioning Genesee 1&2



Retired Asset	Capacity (MW)
Battle River 3	149
Keephills 1	395
Sundance 1	280
Sundance 2	280
Sundance 3	368
Sundance 4	406
Sundance 5*	406
Sundance 6**	401
Battle River 4**	155
Battle River 5**	385
Sheerness 1**	400
Sheerness 2**	400
Keephills 2**	395

*Suspended
**Projected retirement

Repowering Genesee 1&2 delivers long term value

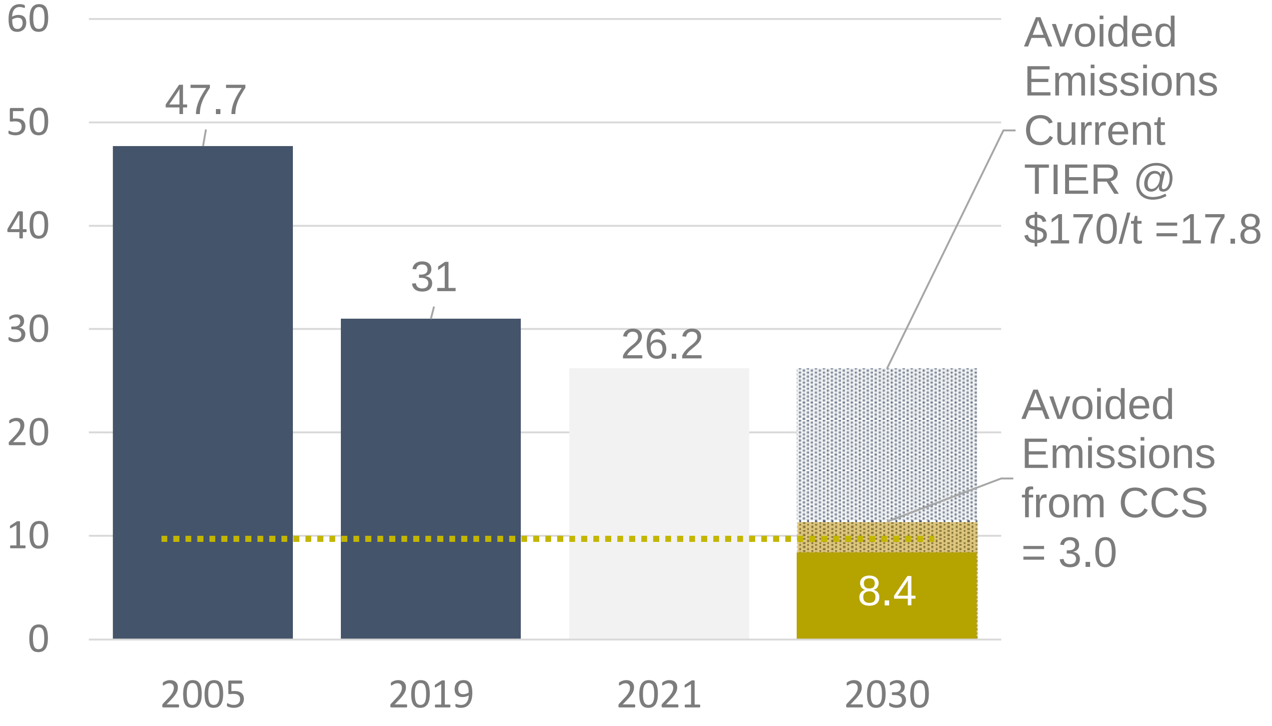
Lower operating costs, useful asset life extension, long-term cash flow growth

- Favourable economics – $1.2B capital cost including $195M for 210 MW battery storage. 20%+ levered returns
- 512 MW net capacity increase (total 1,372 MW)
- Best-in-class NGCC technology with heat rate (6.6-6.7 GJ/MWh) advantage over all current and announced natural gas facilities
- Significant environmental benefits – intensity of 0.35t/MWh; below Alberta’s TIER regulation benchmark of 0.37t/MWh
- Pursuing carbon capture and storage

Alberta TIER[1] program

Significantly reducing carbon emissions

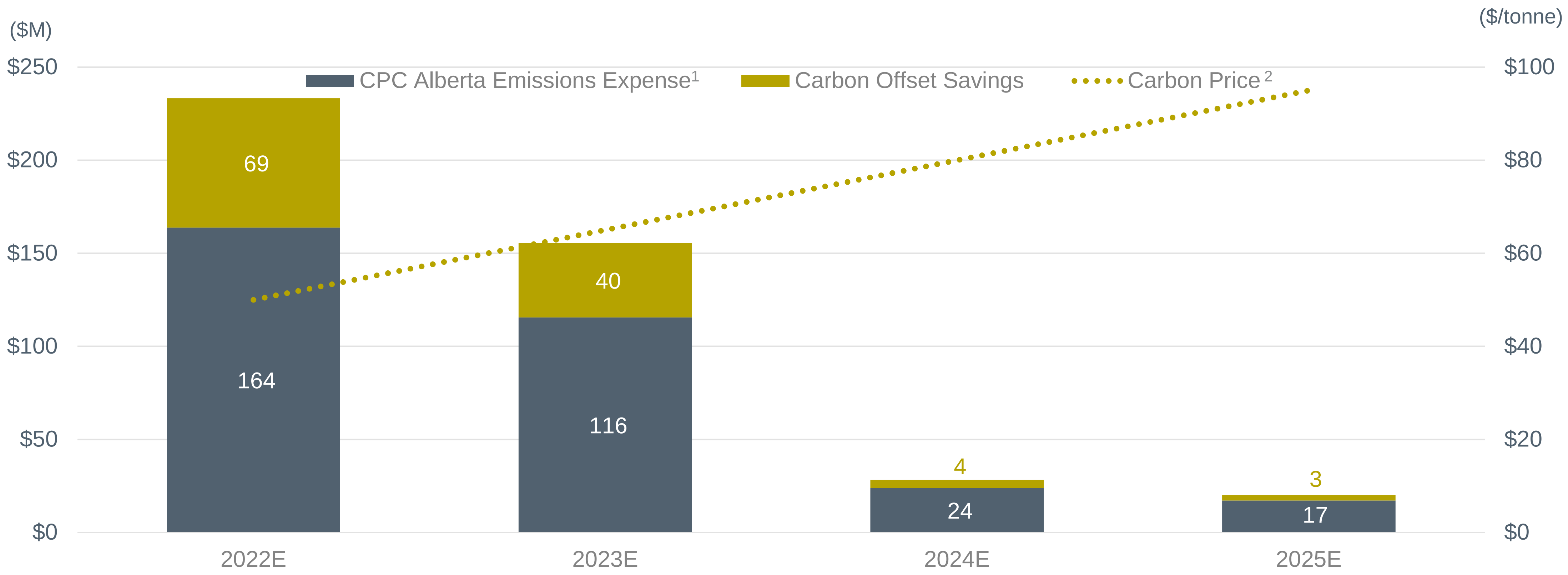
AB electricity sector emissions (MT)[2]



- TIER program driving down carbon emissions in a **meaningful** way
- Alberta government **supportive** of TIER program
- Carbon prices per tonne will rise annually and post-2030, intensity standards will also tighten
- Genesee 1 and 2 repowering projects are **robust and resilient** to increasingly stringent carbon pricing frameworks

1) Technology Innovation and Emissions Reduction Regulation.
2) Capital Power projections.

Managing Alberta carbon exposure



Physically reducing emissions supplemented with low-cost offsets protect and enhance asset value

1) Assumes TIER regulation maintained, federal benchmark stringency requirements (under the Greenhouse Gas Pollution Pricing Act) maintained through 2025 at 0.37 tCO_2e/MWh.
2) Assumes carbon price of $50/tonne in 2022 and increasing by $15/tonne each year thereafter to $170/tonne in 2030.

Alberta portfolio optimization of commodity price risk

(All data as of Mar 31/22)	2023	2024	2025
Power			
% Sold forward[1]	**58%**	**37%**	**24%**
Contracted power prices[2] ($/MWh)	**Low-$60s**	**High-$50s**	**High-$50s**
Forward power prices ($/MWh)	$78	$63	$59
Natural gas			
% Bought forward[3]	**Over 90%**	**Over 90%**	**Over 50%**
Weighted avg cost of gas contracts[2] ($/GJ)	**$2.00-$2.50**	**$2.00-$2.50**	**$2.00-$2.50**
Forward Alberta gas prices ($/GJ)	$4.15	$3.50	$3.63

Alberta power market

- Average spot price of $90/MWh in Q1/22 reflecting high availability of generation in the province, mild weather, and strong wind generation
- Realized power price of $84/MWh in Q1/22 compared to $77 in Q1/21

Managing risk through long-term power and natural gas contracts

1) Based on the Alberta baseload plants, including Joffre and Shepard.
2) Forecasted average contracted prices may differ significantly from future average realized prices as future realized prices are driven by a combination of previously contracted prices and settled prices. When long-term forward portfolio optimization hedges are transacted, they reflect the market's expectations for future period pricing.
3) Includes gas burn for all baseload plants, and estimated gas requirements to supply fixed retail contracts.

Financial strategy

- Deploying capital to advance progress towards our sustainability targets including the repowering of Genesee 1&2 and growing renewables portfolio
- Executing on $1.5B in growth capex without the need for additional common equity
- Resilient cashflows supported by risk mitigation strategies deliver extension of 5% annual dividend growth to 2025
- Maintain investment grade credit rating
- Targeting 10-12% total shareholder return over the long term

Overview of financial strategy

Maintain financial stability and strength

- Strong liquidity
- Risk mitigation by stabilizing cash flows through hedging activities
- Invest in sustainable projects with stable cash flows

Funding a low carbon future

- Cost-effective funding of growth
- Innovative and diverse capital sources
- Well-laddered debt maturities

Maintain investment grade credit rating

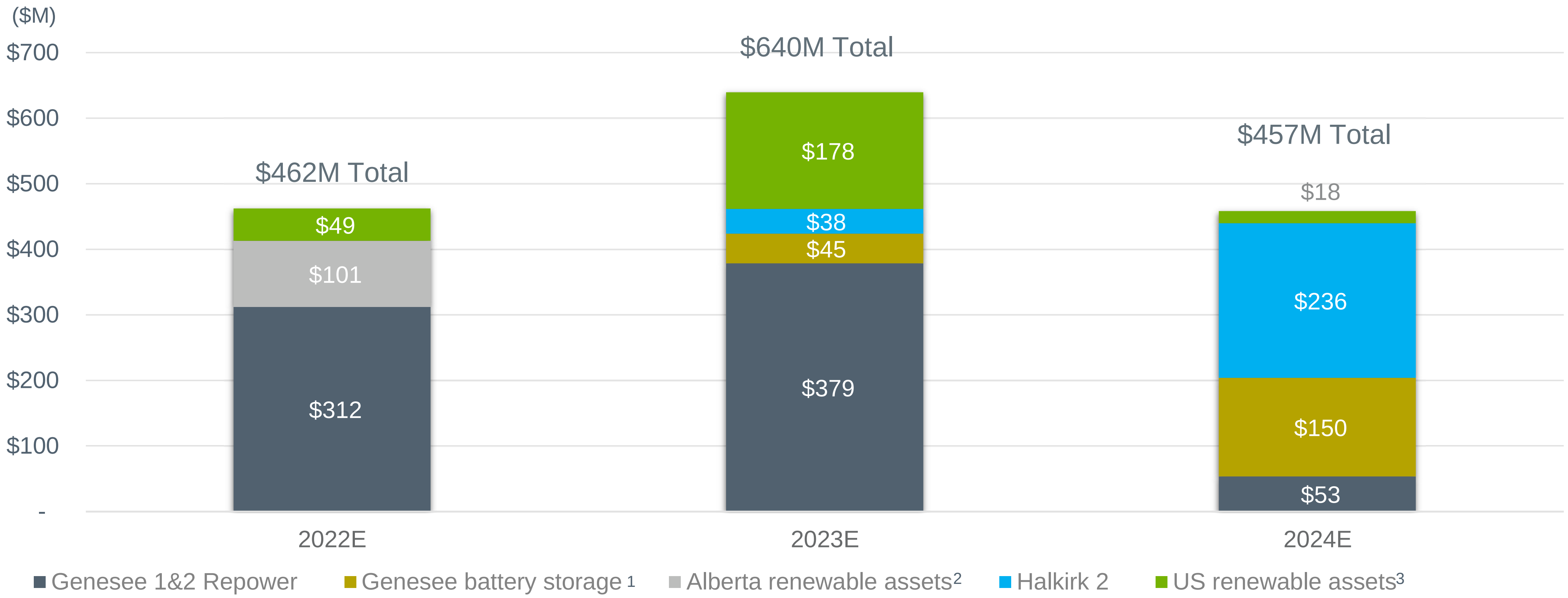
- Access to capital markets through business cycles
- Competitive cost of capital

Deliver annual dividend growth

- Dividend stability through contracted cash flows
- Dividend growth within long term AFFO payout ratio of 45% to 55%

Executing on ~$1.5 billion of growth capex

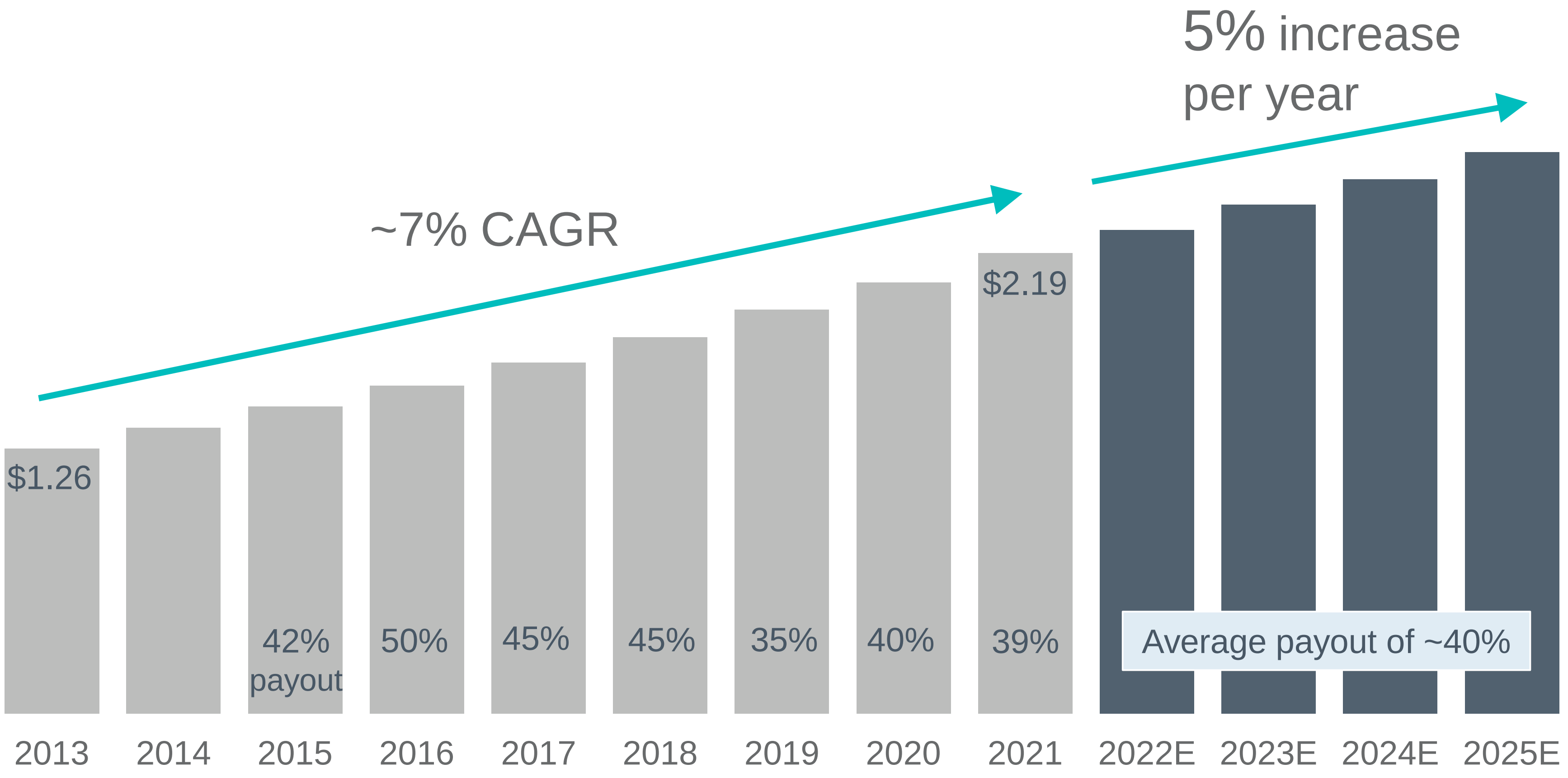
Additional common equity not required to fund current growth projects



1) Genesee battery storage of 210 MWs.
2) Alberta renewables consist of Enchant Solar and Strathmore Solar.
3) US renewables assets excludes Tax Equity contributions.

Dividend growth outlook

Annualized dividend per share (1,2)



Forecast to be below AFFO payout ratio target range of 45% to 55% through 2025

1) Subject to market conditions, economic outlook, cash flow forecast, and Board approval at the time.
2) 2013 to 2021 annualized dividend based on year-end quarterly common shares dividend declared.

Sustainability / investment opportunity

- Corporate purpose – to power a sustainable future for people and planet
- Advancing a low carbon future with a clear path to net carbon neutral before 2050
- Natural gas generation has a necessary long-term role in power
- Accelerating ESG initiatives

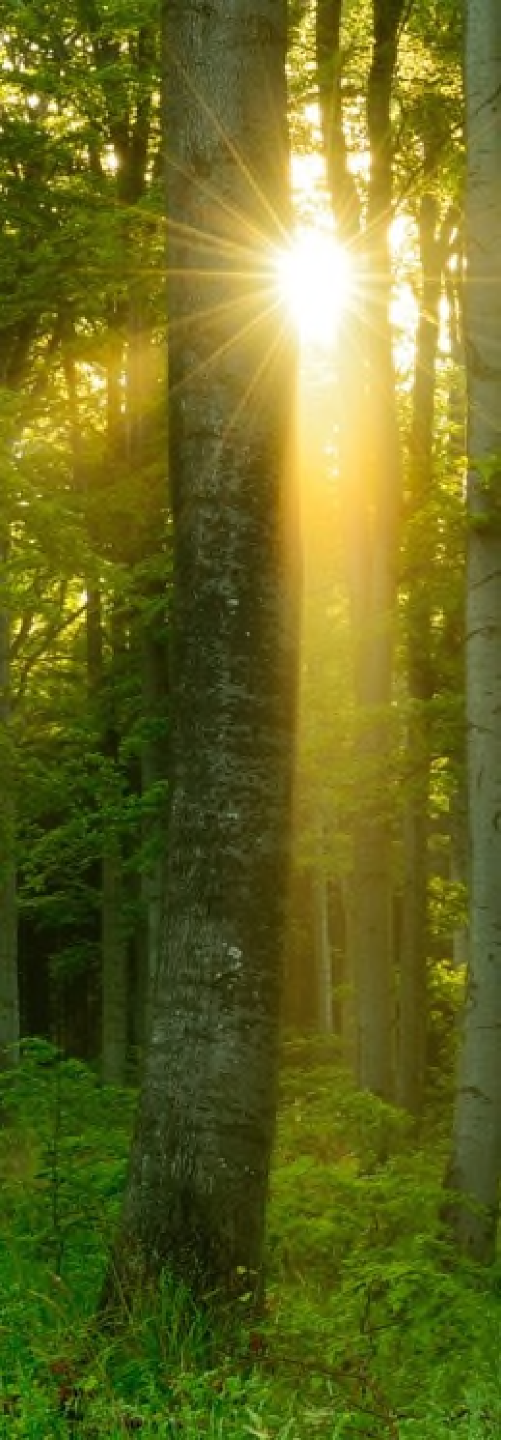
Sustainability commitments – integral to Capital Power

- Broad compensation linked to ESG targets
  - Diversity targets
  - 30% carbon reduction by 2024
  - Employee well being
- Successful implementation of sustainable sourcing plan and water management strategy
- On track to be off coal in 2023
- Sustainability-linked credit facilities tied to emission intensity targets
- Collaboration with Enbridge for carbon capture & storage solution

On track to meet our sustainability targets

Path to net carbon neutral by 2050

2009–Today	Today–2024	2024–2030	2030–2050	2050–2070
• Genesee efficiency program - 12% decrease in GHG by 2021 • Over $3B invested in/committed to renewables • C2CNT interest increased to 40% • Over $40M invested in carbon capture research • Completed two CCUS FEED studies (2007/2011)	• Complete repowering and off coal • Genesee Battery Energy Storage System • CCUS FEED study at Genesee • Invest in renewables, strategic natural gas • Pair renewables with storage • CCU: C2CNT and beyond • Explore commercial / physical Direct Air Capture (DAC) solutions	• Genesee CCS project • Expand CCU • Exploring carbon mitigation technologies on ex-Alberta fleet • Add DAC to carbon compliance portfolio	• Net carbon neutral via physical solutions on natural gas assets, DAC and “offsets” • Invest in DAC facility • Renewables + storage as baseload	• Physical decarbonization



Attractive investment opportunity

Resilient strategy drives growth and accelerates net carbon neutral by 2050

- Successful track record in developing renewable projects and contracting
- Leading position in the robust Alberta power market
- Strong long term cashflow from contracted assets including natural gas assets
- Investing in asset optimization and innovation
- ESG commitments are significant early steps in our journey

Appendices

- Credit rating metrics
- Debt maturity schedule
- 2022 Targets

Financial stability and strength

Strong balance sheet and commitment to investment grade credit ratings

S&P Global Ratings

BBB- / Stable

- Target FFO to Debt > 20%
- Target Debt to EBITDA < 4x

MORNINGSTAR | DBRS

BBB(low) / Stable

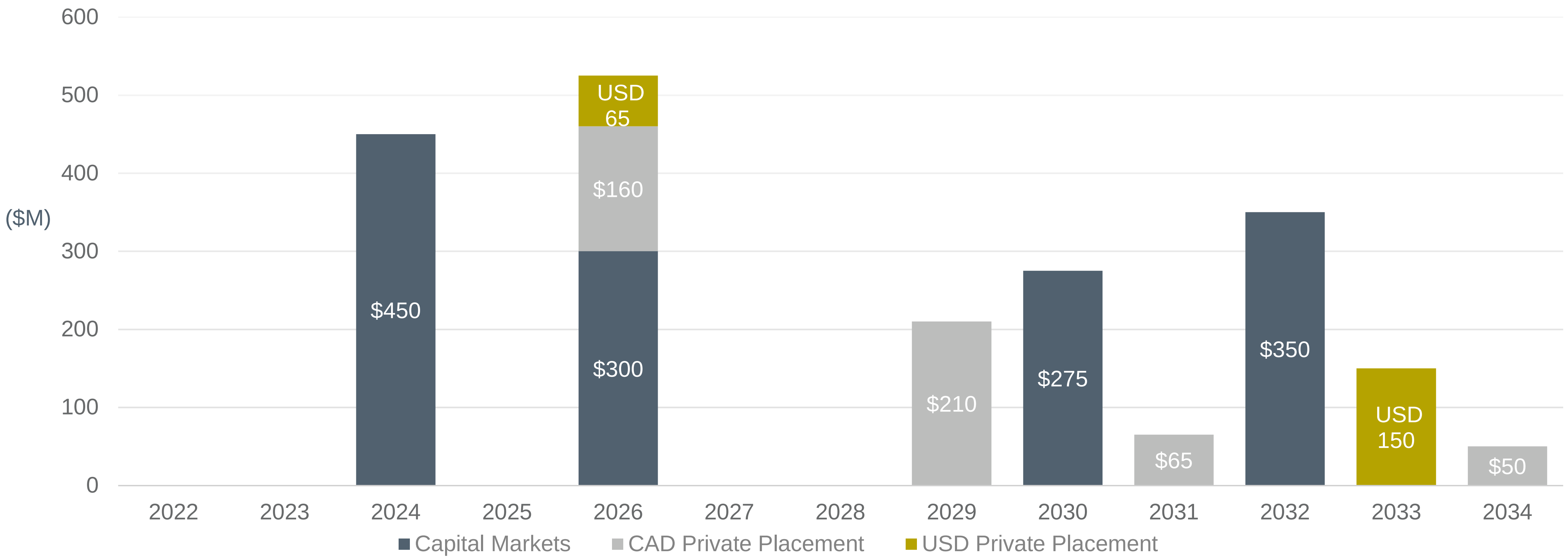
- Target cashflow to debt > 20%
- Target EBITDA / Interest > 4.5x

- Both rating agencies re-affirmed ratings in April 2022
- 2022 forecast to be another strong year with credit metrics well above current ratings threshold
- Continued strong liquidity from operating cash flow and $1B of committed sustainability-linked credit facilities to 2026

Debt maturity profile[1]

Well spread-out debt maturities supported by long asset lives

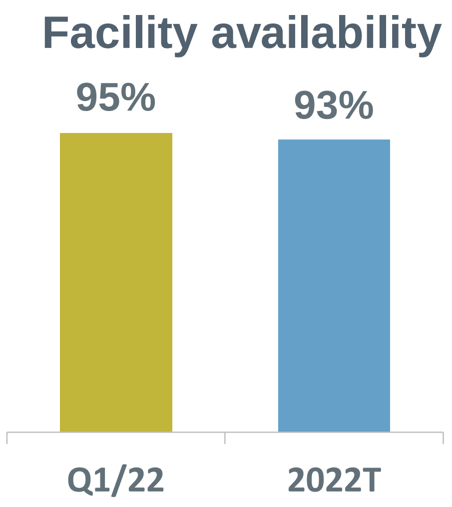
- Longer term debt reflects increased confidence in our business profile
- Strong liquidity from cash flow from operations, cash-on-hand, and credit facilities
- Hedged underlying on refinancings out to 2026

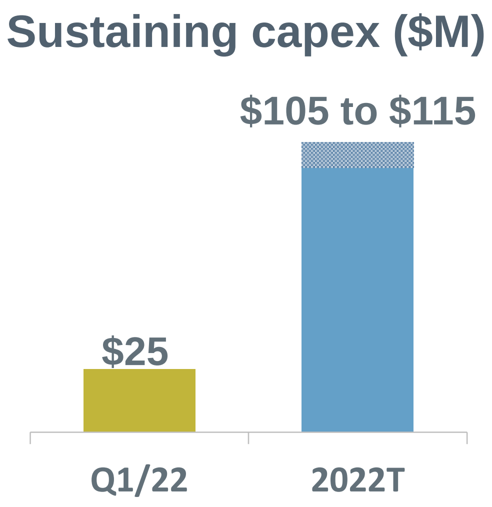


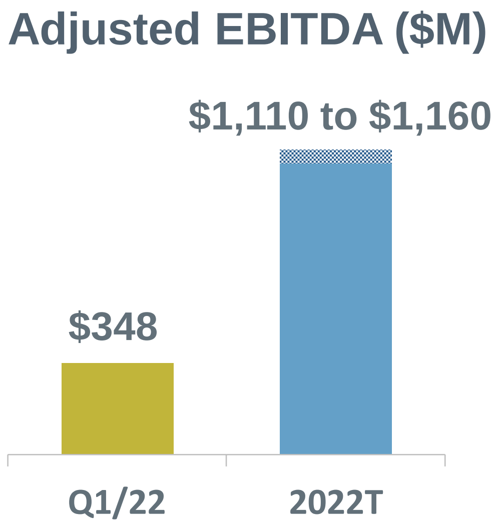
1) Debt amounts as of March 31, 2022. Schedule excludes non-recourse debt, credit facility debt, and tax-equity financing.

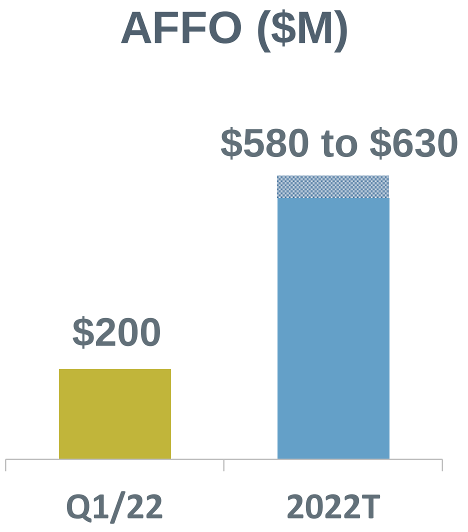
2022 targets

Financial results expected to meet or exceed upper ends of guidance range









Sustaining capex

- Expected to be above target range due to increased work planned for remainder of the year and timing of work

Inflationary pressure

Strong cash flow

- Supports financing for growth capex and refinancing of preferred shares – affirmation of investment grade credit ratings

Full year guidance trending towards upper end of guidance ranges

- Strong Q1 results and higher AB pricing outlook

Reiterating 5% dividend growth consistent with guidance

$500M target of committed capital for growth

Non-GAAP financial measures and ratios

The Company uses (i) earnings before net finance expense, income tax expense, depreciation and amortization, impairments, foreign exchange gains or losses, finance expense and depreciation expense from its joint venture interests, gains or losses on disposals and unrealized changes in fair value of commodity derivatives and emission credits (adjusted EBITDA), (ii) adjusted funds from operations (AFFO), and (iii) normalized earnings attributable to common shareholders as financial performance measures.

The Company also uses AFFO per share and normalized earnings per share as performance measures. These measures are non-GAAP ratios determined by applying AFFO and normalized earnings attributable to common shareholders, respectively, to the weighted average number of common shares used in the calculation of basic and diluted earnings per share.

These terms are not defined financial measures according to GAAP and do not have standardized meanings prescribed by GAAP and, therefore, are unlikely to be comparable to similar measures used by other enterprises. These measures should not be considered alternatives to net income, net income attributable to shareholders of the Company, net cash flows from operating activities or other measures of financial performance calculated in accordance with GAAP. Rather, these measures are provided to complement GAAP measures in the analysis of the Company's results of operations from management's perspective.

Reconciliations of these non-GAAP financial measures are disclosed in the Company's Management's Discussion and Analysis prepared as of April 29, 2022 for the first quarter of 2022, which is available under the Company's profile on SEDAR at SEDAR.com and on the Company's website at capitalpower.com.

Forward-looking information

Forward-looking information or statements included in this presentation are provided to inform the Company's shareholders and potential investors about management's assessment of Capital Power's future plans and operations. This information may not be appropriate for other purposes. The forward-looking information is generally identified by words such as will, anticipate, believe, plan, intend, target, and expect or similar words that suggest future outcomes.

Material forward-looking information includes expectations regarding:

- our 2022 performance targets and current period updates to our expectations, including for facility availability, sustaining capital expenditures, adjusted funds from operations (AFFO) and adjusted EBITDA;
- our company-wide targets specific to climate-related performance, including reduction of emissions and emissions intensity, repowering of Genesee 1 and Genesee 2 with the addition of battery storage and conversion of Genesee 3, completion of the Genesee Carbon Conversion Centre, commercial application of carbon conversion technologies and plans to be off coal in 2023;
- future revenues, expenses, earnings, adjusted EBITDA and AFFO;
- the future pricing of electricity and market fundamentals in existing and target markets;
- future dividend growth;
- the Company's future cash requirements including interest and principal repayments, capital expenditures, dividends and distributions;
- the Company's sources of funding, adequacy and availability of committed bank credit facilities and future borrowings;
- the timing of extending the Company's short-form base shelf prospectus;
- the timing of, funding of and costs of existing, planned and potential development projects and acquisitions (including Strathmore Solar, phase 2 of Halkirk Wind, the repowering of Genesee 1 and 2 (including being hydrogen ready and battery storage), Bear Branch Solar, Hornet Solar, Hunter's Cove Solar and Enchant Solar;
- facility availability and planned outages;
- capital expenditures for facility maintenance and other (sustaining capital, future growth projects, commercial initiatives);
- market and regulation designs and the impact thereof on the Company's core markets; and
- the impacts of climate change and the Russia-Ukraine conflict.

These statements are based on certain assumptions and analyses made by the Company considering its experience and perception of historical and future trends, current conditions, expected future developments, and other factors it believes are appropriate including its review of purchased businesses and assets. The material factors and assumptions used to develop these forward-looking statements relate to:

- electricity, other energy and carbon prices;
- performance;
- business prospects (including potential re-contracting of facilities) and opportunities including expected growth and capital projects;
- status of and impact of policy, legislation and regulations;
- effective tax rates;
- the development and performance of technology;
- foreign exchange rates;
- matters relating to the LLR Proceeding, including the timing and recovery from appropriate parties; and
- other matters discussed under the Performance Overview, Outlook and Risks and Risk Management sections.

Whether actual results, performance or achievements will conform to the Company's expectations and predictions is subject to a number of known and unknown risks and uncertainties which could cause actual results and experience to differ materially from the Company's expectations. Such material risks and uncertainties are:

- changes in electricity, natural gas and carbon prices in markets in which the Company operates and the use of derivatives;
- regulatory and political environments including changes to environmental, climate, financial reporting, market structure and tax legislation;
- disruptions, or price volatility within the Company's supply chains;
- generation facility availability, wind capacity factor and performance including maintenance expenditures;
- ability to fund current and future capital and working capital needs;
- acquisitions and developments including timing and costs of regulatory approvals and construction;
- changes in the availability of fuel;
- ability to realize the anticipated benefits of acquisitions;
- limitations inherent in the Company's review of acquired assets;
- changes in general economic and competitive conditions, including inflation;
- changes in the performance and cost of technologies and the development of new technologies, new energy efficient products, services and programs; and
- risks and uncertainties discussed under the Risks and Risk Management section.

See the Risks and Risk Management sections in the Company's 2021 Integrated Annual Report and in the Company's first quarter 2022 MD&A, for further discussion of these and other risks.

Readers are cautioned not to place undue reliance on any such forward-looking statements, which speak only as of the date made. The Company does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in the Company's expectations or any change in events, conditions or circumstances on which any such statement is based, except as required by law.

Capital Power Common Shares

- Listed on the Toronto Stock Exchange (symbol: CPX)
- 52-week low/high share price ($36.65 / $45.95)
- Shares outstanding: 116 million
- Market cap: ~$5.3 billion
- Avg daily trading volume (trailing 12 months): 458,000 shares
- Dividend yield: ~4.8%

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