Investor Presentation
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Capital Power

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Growth-oriented North American energy transition company

- Targeting net carbon neutral before 2045
- Off coal in 2023
- Pursuing natural gas CCS project
- 29 operating facilities (~7,500 MW); highly-contracted, young and diversified portfolio
- Well-positioned assets and trading expertise in the attractive Alberta power market
- AFFO growth of 18% per year (5-year CAGR)
- 9 consecutive years of dividend growth with 6% annual dividend guidance to 2025
- Average annual TSR of 26% over 5 years

Projects under development

- 4 renewable projects and Genesee 1&2 repowering project adding ~800 MW by 2024
- Robust renewable and natural gas pipeline

Our strategy – Powering our Future

To acquire and/or optimize natural gas assets

- Public and investor sentiment evolving on natural gas for reliability and affordability
- Re-contracting proving out
- Excellent opportunities in Ontario, MISO[1], Alberta

Renewables growth

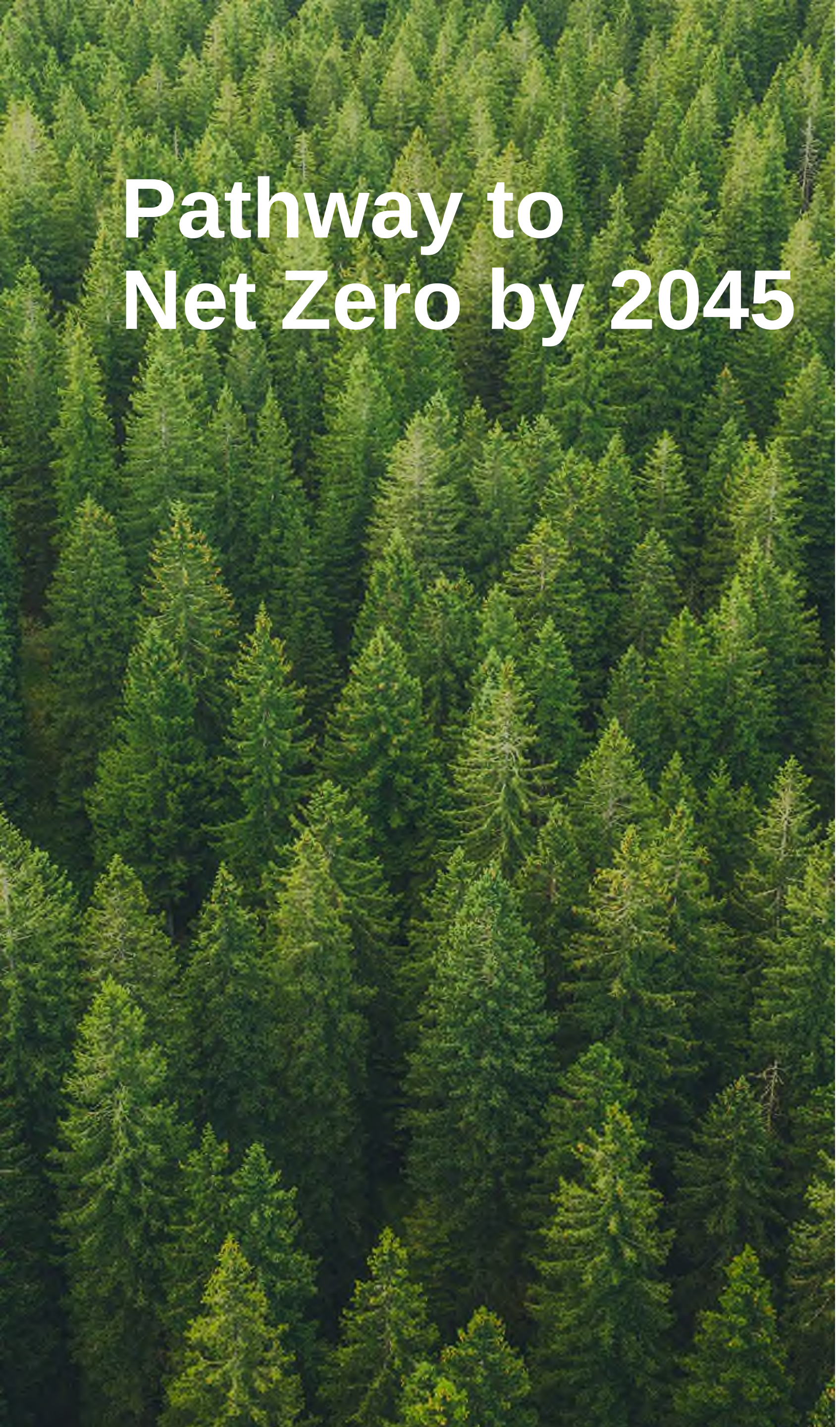
- Pipeline of 3.4 GW of near-term renewable opportunities
- Added ~820 MW in renewables since 2018 including 266 MW from 3 projects in the past 12 months
- Green financing framework and Green Hybrid bond issued in 2022 to support build out of renewables

Decarbonization

- Net zero by 2045 and have a pathway to net zero
- LNTP on Genesee CCS project
- Examining direct air capture

Consistent, Robust Strategy

1) MISO – Midcontinent Independent System Operator covering Midwest U.S., Manitoba, Canada, and a southern U.S. region.



Pathway to Net Zero by 2045

2009– TODAY

- Genesee efficiency program - 12% decrease in greenhouse gas (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)

TODAY–2024

- Complete repowering and off coal
- Genesee Battery Energy Storage System
- CCUS FEED study at Genesee and commence construction
- Invest in renewables, strategic natural gas
- Pair renewables with storage
- CCU: C2CNT and beyond
- Explore commercial/physical direct air capture (DAC) solutions

2024–2030

- Genesee CCS project
- Expand CCU
- Exploring carbon mitigation technologies on ex-Alberta fleet
- Add DAC to carbon compliance portfolio

2030–2045

- Net neutral via physical solutions on natural gas assets, DAC and “offsets”
- Invest in DAC facility
- Renewables + storage as baseload
- Consider alternative “base load”

2045–2070

- Physical decarbonization
- Negative abatement solutions

Powering a Sustainable Future

- Advancing decarbonization across our portfolio and targeting net zero by 2045
- On track to meet our sustainability targets
- Policy developments support our strategy
- Demonstrating ESG excellence across our business

Sustainability commitments and progress

On track to meet our sustainability targets

2022 executive and leadership compensation linked to environment and social targets including

- 10% growth in women leaders by 2024
- 30% reduction in fleet emissions intensity by 2024
- 9% increase in workforce diversity by 2024

Sustainable sourcing and water management – continued execution of deliverables outlined in the 2021 strategies

On track to be off coal in 2023

Sustainability-linked credit facilities tied to emission intensity targets

Inaugural Green Financing Framework enabling the issuance of green bonds and green loans

Enhancing our ESG performance

Executive and leadership incentives linked to ESG

20% of 2023 executive short-term incentive pay

- 5% of our Alberta natural gas purchases will be from Responsibly Sourced Natural Gas in 2023 ***NEW***
- Health, safety and environment index
- 30% of new hires to be women across our entire workforce
- 95% retention rate

20% of 2023 executive and leadership LTIP 3-year PSU measurement[1]

- 30% reduction in emissions intensity by end of 2025 from 2022 levels
- 10% growth in women leaders by 2025 from 2023 levels
- 9% increase in workforce diversity by 2025 from 2023 levels

1) LTIP: long term incentive pay; PSU: performance share unit

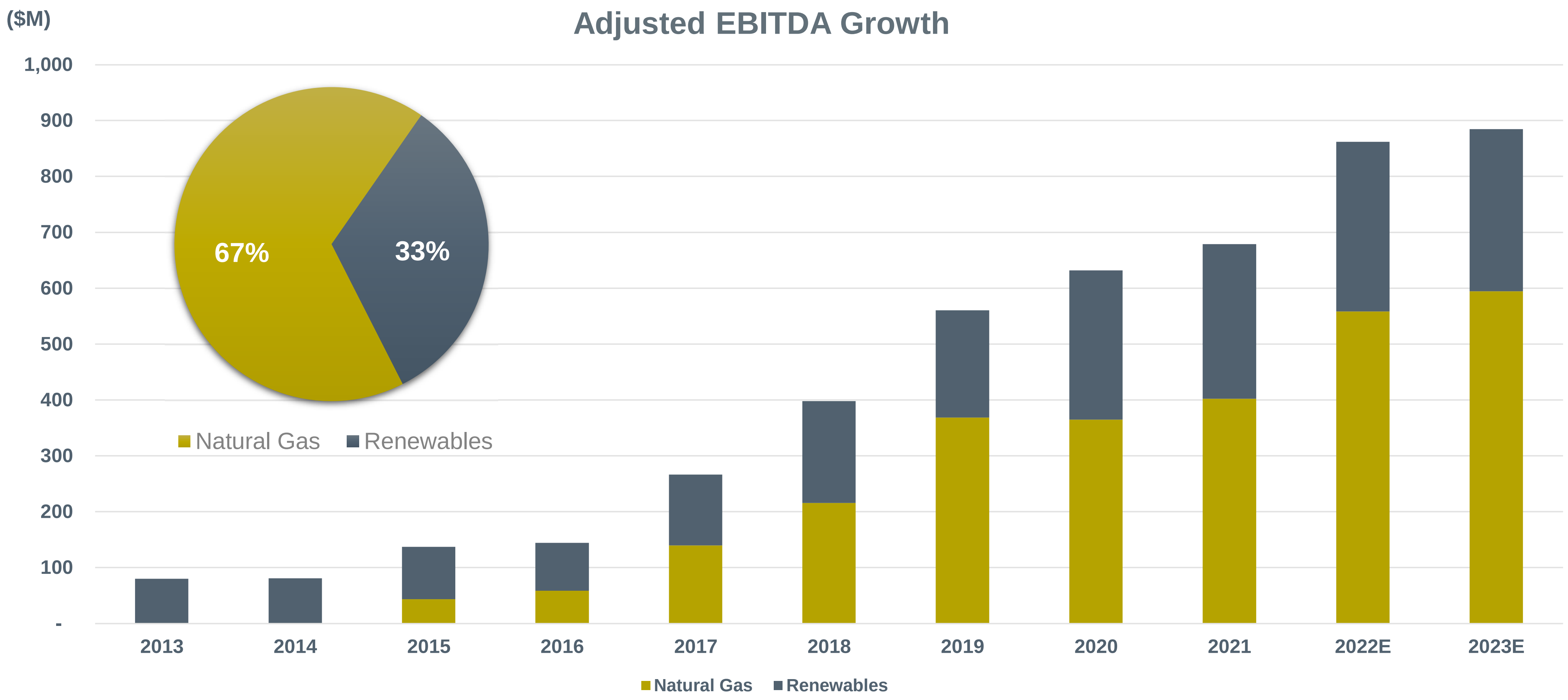
2023 Sustainability Targets

- **2045** Target of net zero by 2045
- Sustainable Sourcing Policy
- Strong performance relating to existing targets
- Green Financing Framework and sustainability-linked financing
- Enhanced ESG targets

Robust Growth Opportunities

- 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 United States with two projects planned for 2023
- Ontario represents significant opportunity

Sources of adjusted EBITDA growth since 2013



Our growth pipeline: 4,700 MW and growing

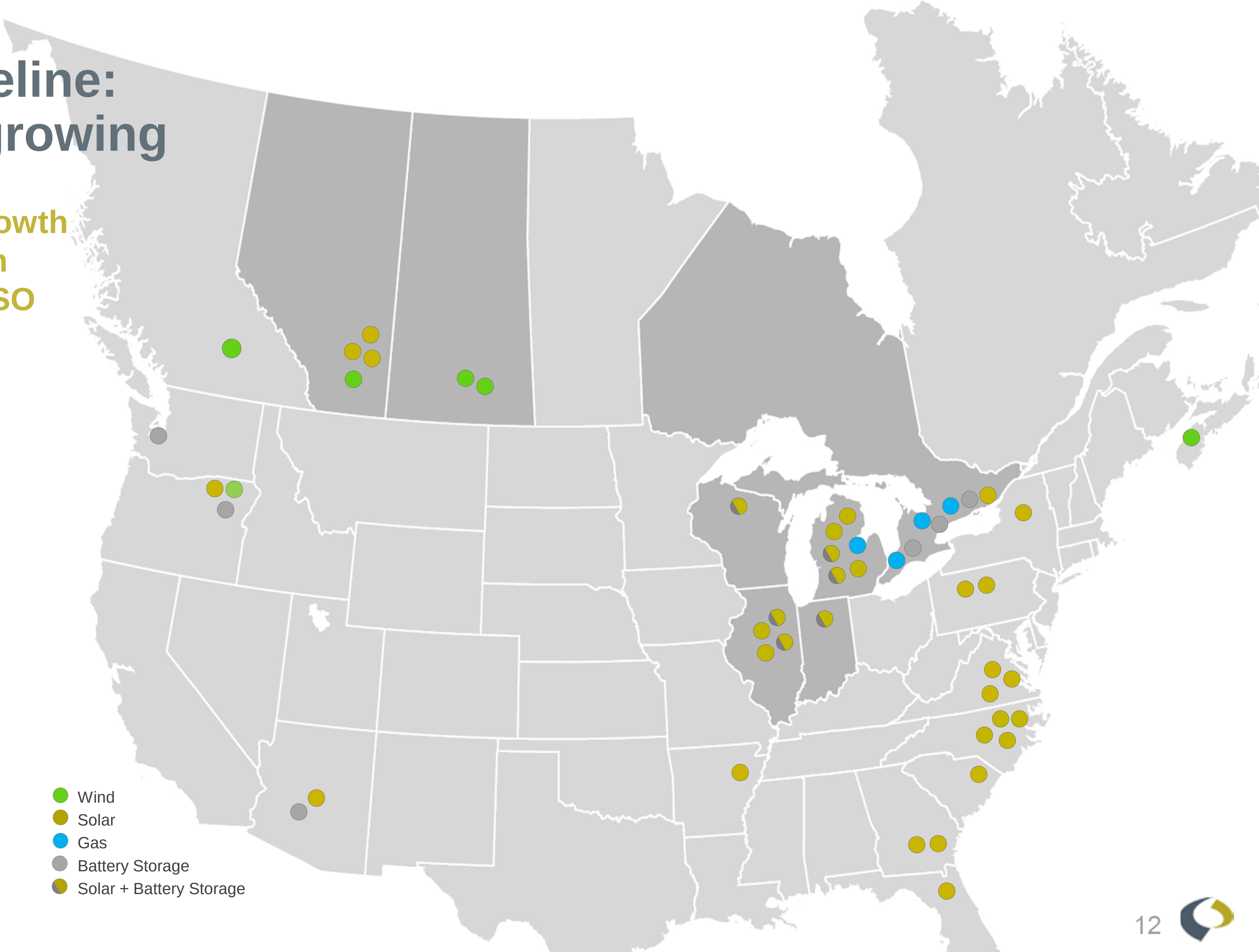
Significant near-term growth opportunities in Western Canada, Ontario and MISO

924 MW
wind

2,486 MW
solar

700 MW
gas

2,300 MWh
battery storage



Our midlife natural gas strategy in action

Acquire midlife gas

- Accretive & contracted
- Advantaged location
- Competitive operational features
- In markets with strong capacity needs

✓ **Acquired 6 assets since 2017**

Enhance value

- CT upgrades
- Carbon mitigation
- Gas transport and storage optimization
- Effective energy management

✓ **Multiple levers to add value**

Re-contract

- Island Generation extended through 2026
- Decatur renewed through 2032
- Arlington tolling contract extended through 2031
- Ontario RFP to contract gas through 2040 and recontract through 2035

✓ **Midland Cogen: Strong re-contracting dynamics**

Leverage brownfield advantages

- Uprates
- Expansions
- Storage, batteries and other technologies

✓ **Midland Cogen: Large strategically located site with expansion potential**

Ontario IESO[1] capacity procurement

Significant near-term need for supply

1,500 MW of natural gas
15-year contracts

2,500 MWh of storage
22-year contracts

November 30
Deliverability test

December 6
Final contract details

December 20 / January 24
Submissions due

Q1 & Q4 2023
Awards

2025-2027
Commercial operation date

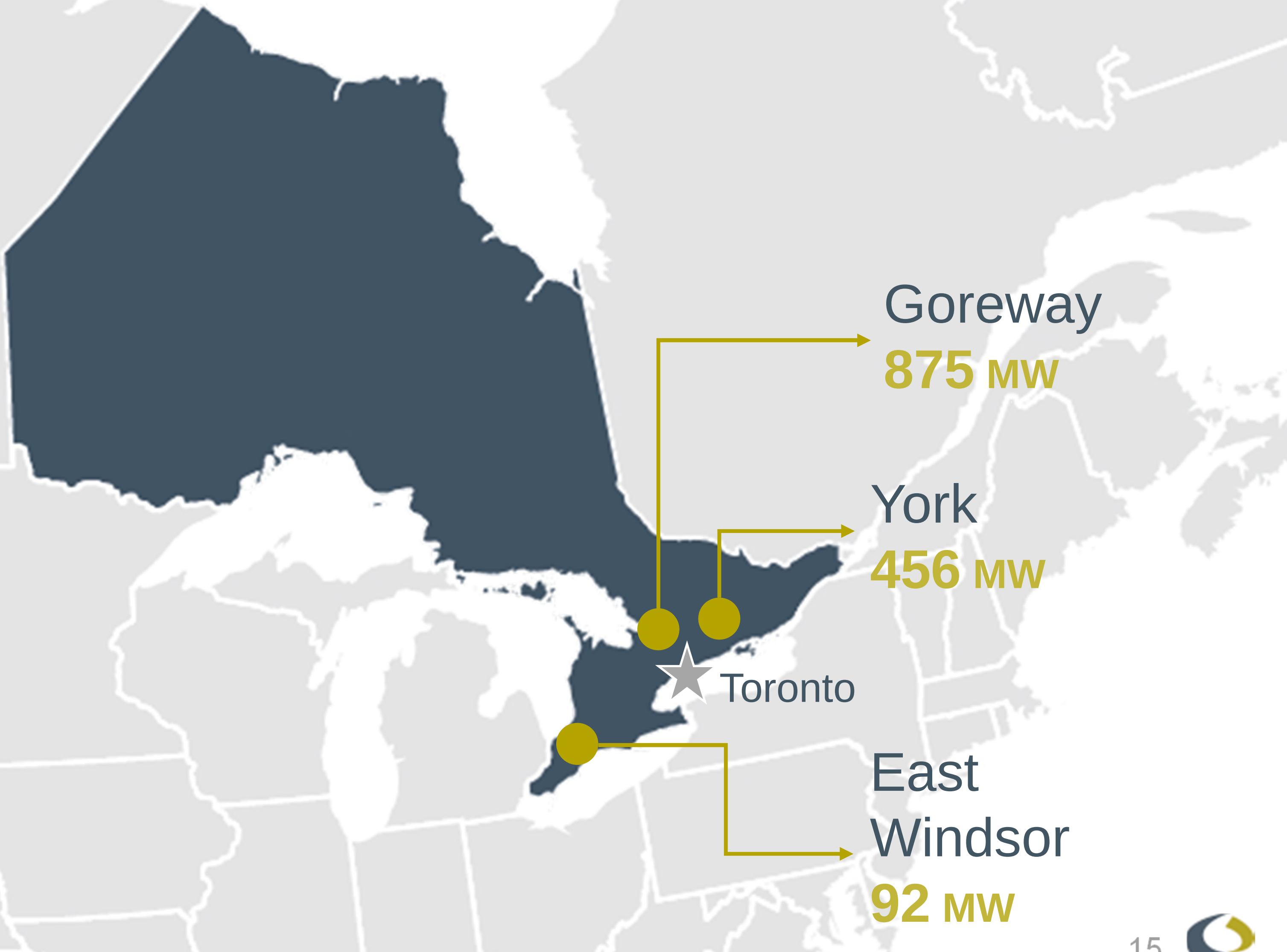
1) Independent Electricity System Operator

Ontario fleet: brownfield advantage

100 MW
Potential thermal upgrades at existing facilities

300 MW
Gas generation expansion potential

260 MWh
Potential battery storage projects



Decarbonization - Advancing Genesee CCS Project

- CCS on Genesee repowered units 1&2 with 95% capture rate at full capacity capturing 3 million tonnes of CO_2 per year
- Announced LNTP with FNTP expected in Q3/23 and commercial operations in 2027
- Strong government support
- After-tax returns commensurate with risk

Genesee CCS progress and LNTP

	Limited Notice to Proceed Expectations	Status	Full Notice to Proceed Expectations	Status
FEED Study	• Revised capital cost of $2.3B • Technology works • Due diligence	✓	• Firm capital costs • Technology confirmation • Performance guarantees	
CCS Hub (Enbridge)	• Granted pore space • Next steps agreement • Economic assessment	✓	• Geology proved • Commercial agreement • Costing	
Financial Support	• ITC – refundable • CIB supportive • ISED – SIF accepted (Nov. 8 announcement Net Zero Accelerator)	✓	• ITC details on asset eligibility • Binding term sheet or executed agreement • Binding term sheet or executed agreement	
Carbon Policy De-risking	• Federal counterparty identified • Stabilize carbon pricing	✓	• Binding term sheet or executed agreement	

Strong government support

- Genesee CCS project continues to receive positive signals and feedback from key government agencies
- Announced LNTP based on increasing policy certainty

Federal Finance released Draft Legislation related to the CCUS ITC at 50% of eligible project costs

Selected as one of 10 projects to advance to the 2nd round of the Innovation, Science and Economic Development (ISED) department's SIF Net Zero Accelerator process (Nov 8/22 announcement by Federal Minister Champagne of ISED)

Canada Infrastructure Bank (CIB) continues to view project favorably; support is expected to take the form of preferential low interest debt on deferred repayment terms

Canada Growth Fund will be established and would provide carbon price assurances for CCS projects *(Federal Fall 2022 Economic Statement)*

Genesee CCS expected to contribute to additional reductions in electricity sector as part of "additional measures" scenario *(Canada's Dec/22 report filed with UNFCC[1])*

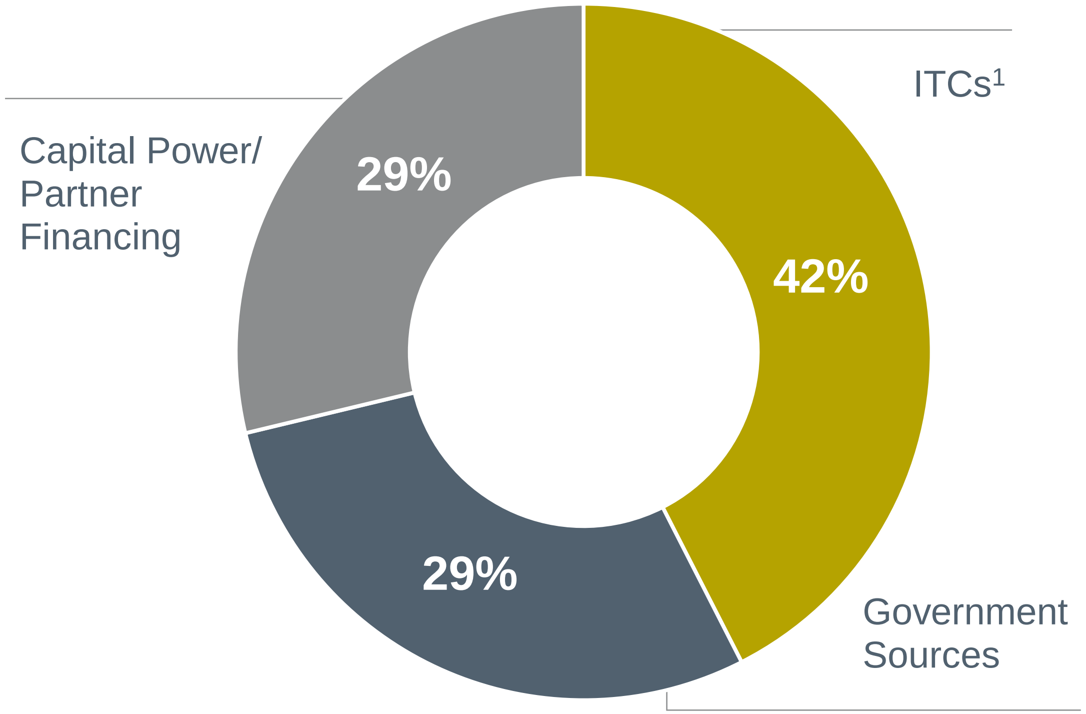
1) United Nations Framework Convention on Climate Change (UNFCC)

Genesee CCS project financing

After-tax returns expected to be commensurate with risk

- Construction cost estimate revised to $2.3B
- After consideration of ITCs, expect the remaining costs to be funded ~50/50 between Government sources (SIF and/or CIB) and Project or Owner financing
- Expect Indigenous partnership
- Capital Power/Partner would fund the remaining ~$600M

Expected Financing Plan



[1] Based on 85% of costs qualifying for ITC

Genesee 1&2 Repowering Project

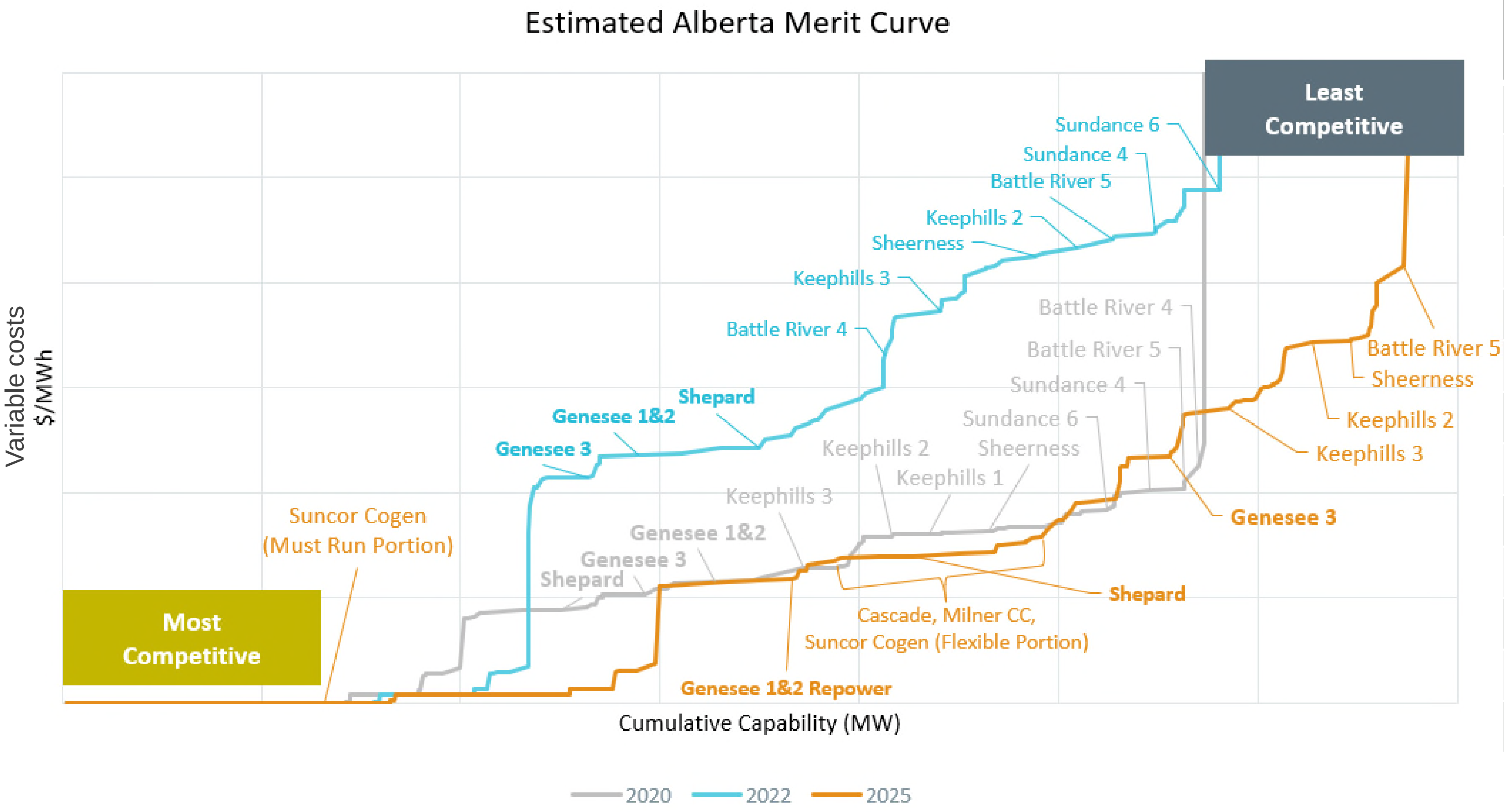
- Conversion to highly efficient combined cycle units increasing its competitiveness
- On schedule to meet our off-coal commitment by the end of 2023
- Significant reduction in carbon emissions
- Strong project economics

Genesee repowering delivers long term value

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

- **Forecast $1.1B project cost** – modest overrun on $997M budget (excludes $195M for 210 MW battery storage) due to additional costs associated with switchyard
- **Strong economics** – estimated 35%+ levered returns based on actual financing
- **512 MW net capacity increase** – total 1,372 MW
- **Best-in-class NGCC technology** – 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

Repositioning Genesee 1&2

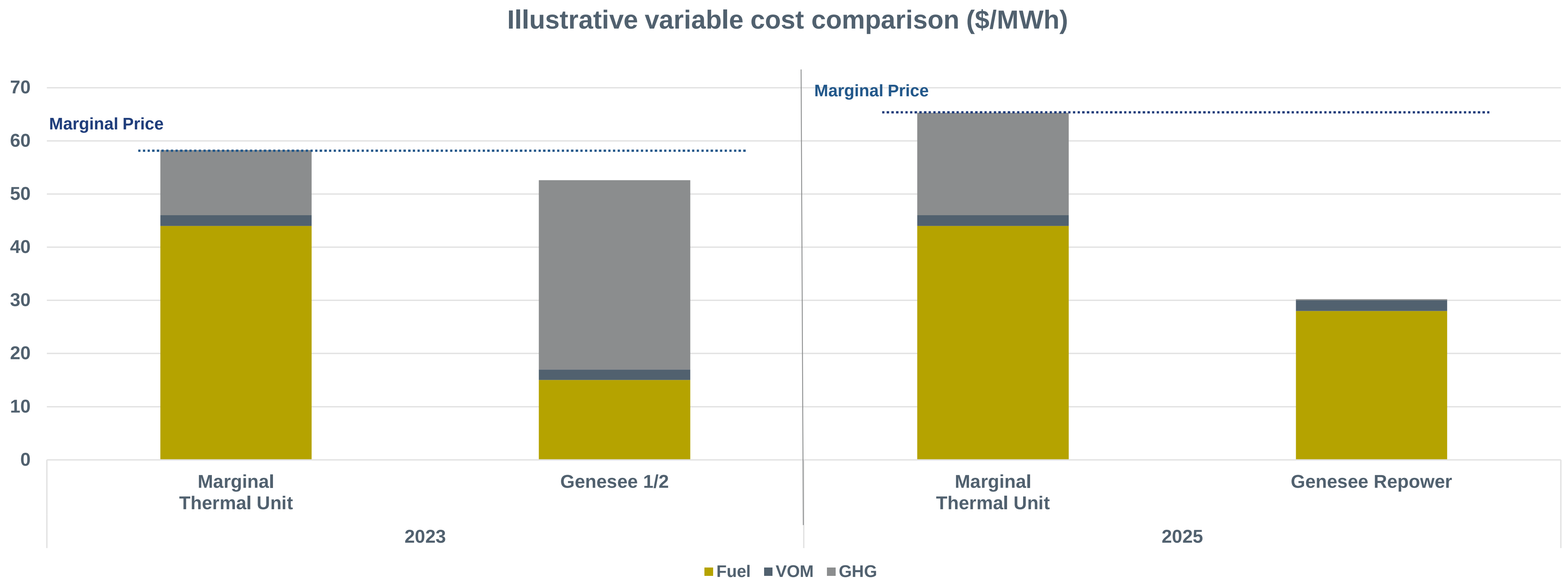


Retired Asset	Capacity (MW)
Battle River 3	149
Keephills 1	395
Sundance 1	280
Sundance 2	280
Sundance 3	368
Sundance 4	406
Sundance 5*	406
Sundance 6**	401
Battle River 4**	155
Battle River 5**	385
Sheerness 1**	400
Sheerness 2**	400
Keephills 2**	395

*Suspended
**Projected retirement

Genesee repowering

Significantly reducing carbon emissions and increasing competitiveness

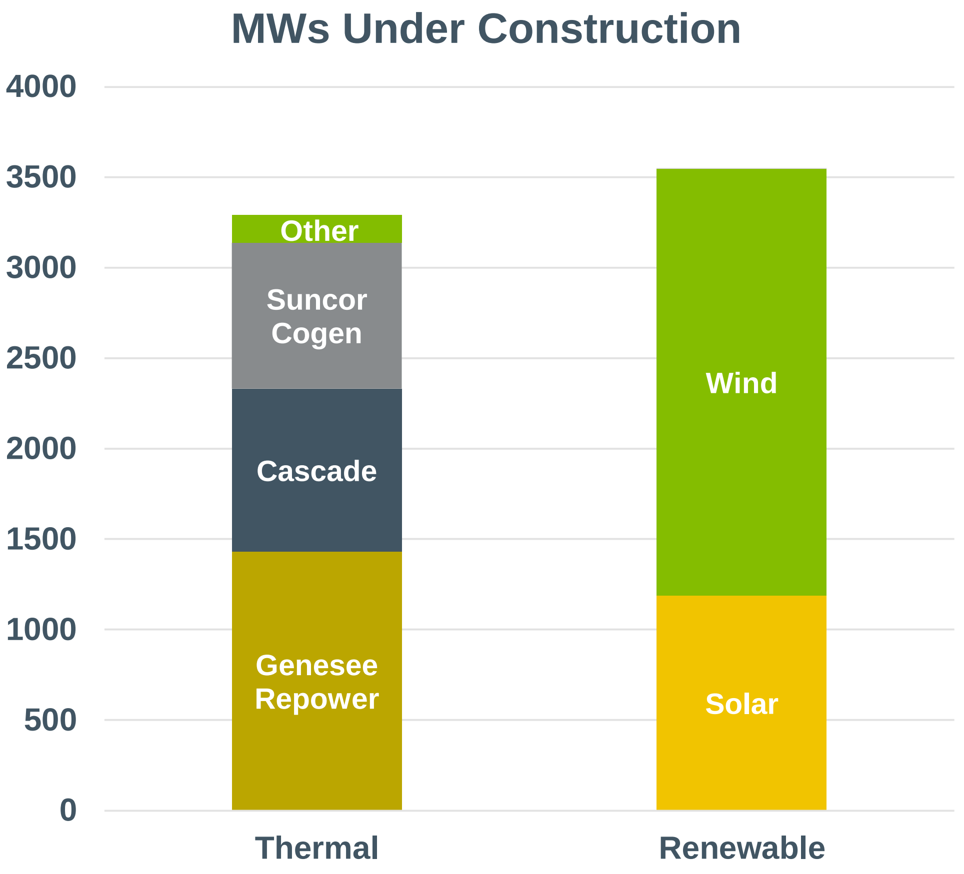


Strong Positioning in the Alberta Power Market

- Alberta power market seeing unprecedented prices in 2022 and continuing into 2023
- New supply (thermal and renewables) under construction adds ~6,800 MW over the next few years
- New renewables and efficient gas supply will displace less efficient thermal units
- Demand expected to increase modestly year-over-year
- Capital Power well-positioned to continue as the market leader with the most efficient and diverse fleet, coupled with prudent hedging

Alberta power market

Large volume of new capacity under construction

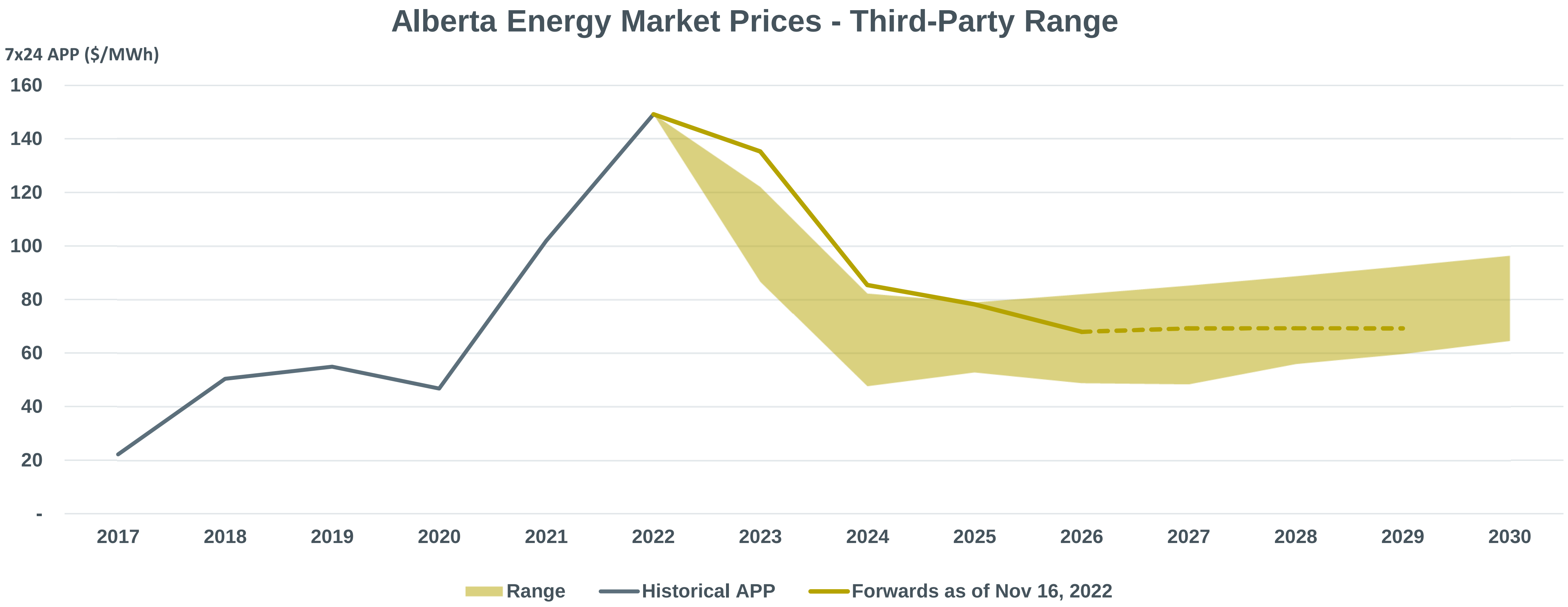


- Currently ~34,000 MW of projects in the AESO queue and AUC e-filing
  - ~1,800 MW belonging to Capital Power
- Close to 6,800 MW are under construction
  - Over 20% of ‘under construction’ capacity from Capital Power, representing approximately ~1,300 MW
- We continue to lead capital investment in Alberta, committing more than $3B in capital since 2012 for projects, including the best-in-class combined cycle

Source: AESO Nov Long Term Adequacy Report

Alberta power pricing

Market progresses through supply-demand balance cycle



Executing on Financial Strategy

- Strong and resilient cash flow generation funds growth capex and maintains investment grade credit rating
- Strong track record of annual dividend increases with dividend growth guidance of 6% per year to 2025
- Average annual TSR of 14% since inception exceeds target of 10-12% over the long term

Stable financial strategy

Maintain financial stability

- Strong liquidity available on $1B of credit facilities
- Risk mitigation by stabilizing cash flows through contracting and hedging activities

Funding growth towards a net zero future

- Internally generated cash flow funds current growth capex without the need to access capital markets

Maintain investment grade credit rating

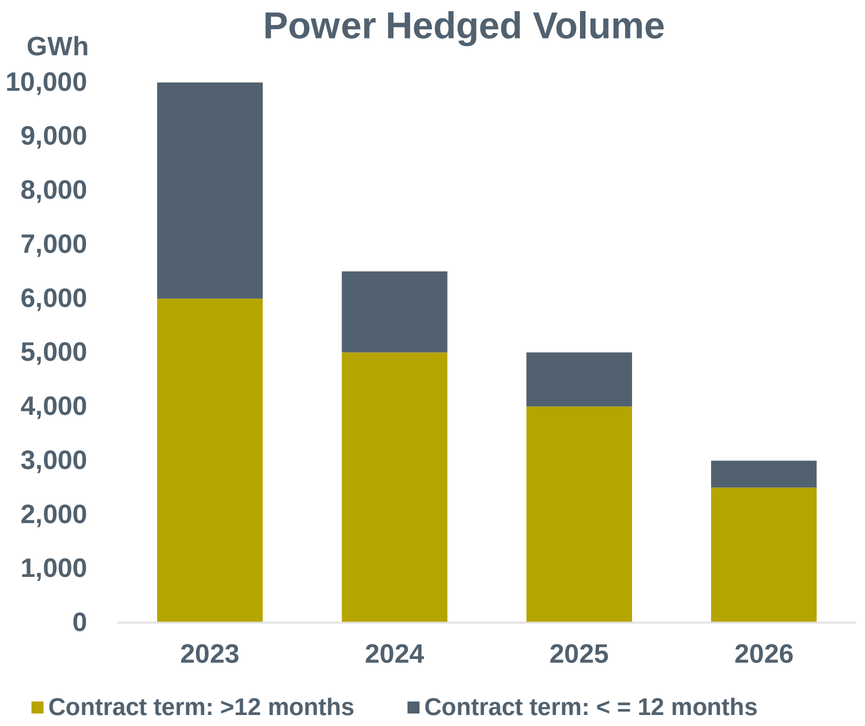
- Credit metrics exceed rating agency targets for current ratings

Deliver annual dividend growth

- 6% annual dividend growth to 2025
- Payout ratio below target of 45-55%

Alberta commercial portfolio

Reducing volatility and risk with multi-year hedges



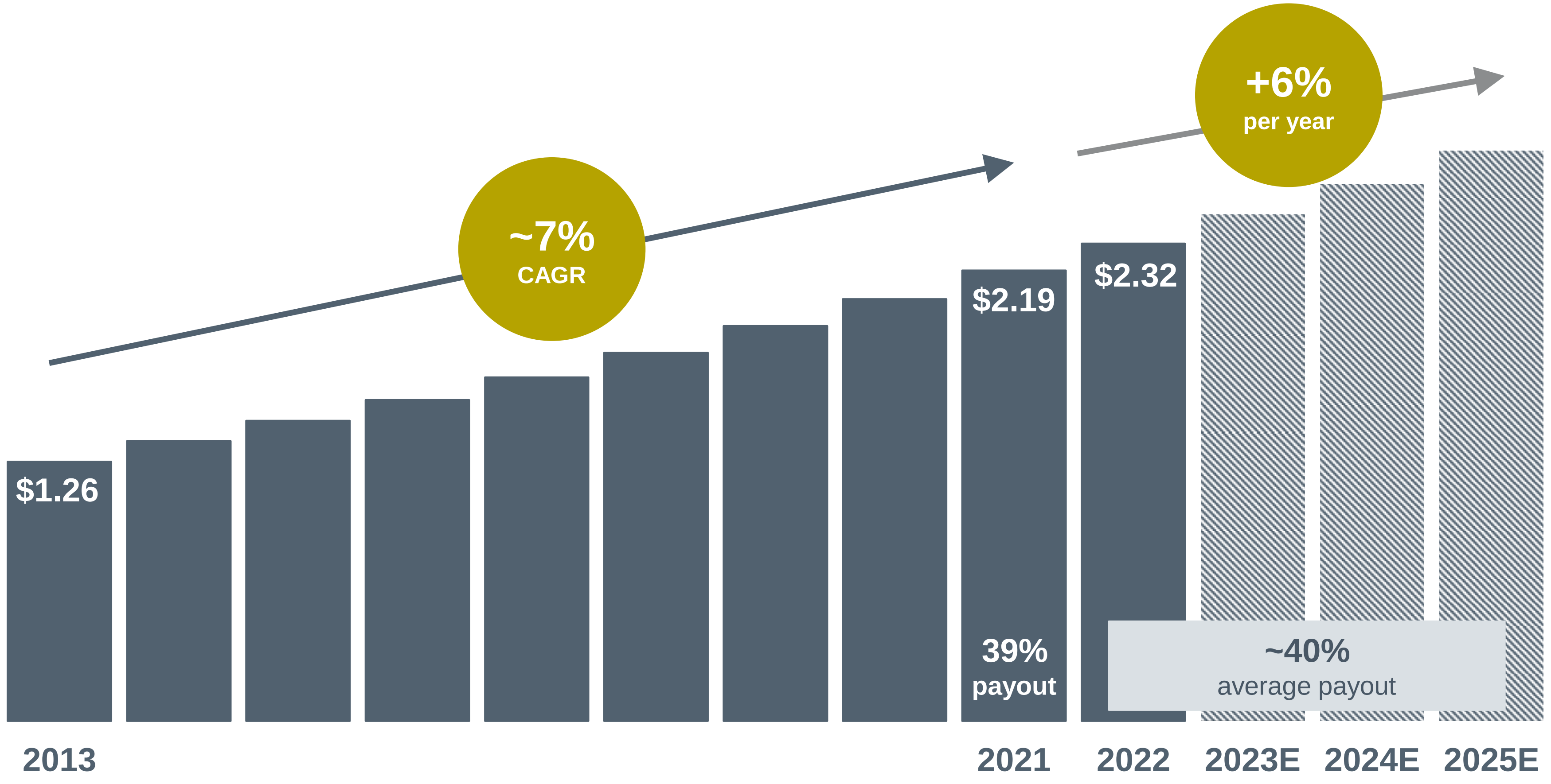
(All data as of November 18, 2022)	2023	2024	2025
Power			
Hedged volume (GWh)	10,000	6,500	5,000
Weighted average hedged prices[1] ($/MWh)	High-$70s	Mid-$60s	Mid-$60s
Forward Alberta power prices ($/MWh)	$136	$85	$78
Natural gas			
Hedged volume (TJ)	50,000	60,000	50,000
Weighted average hedged prices[1, 2] ($/GJ)	< $2.00	< $2.00	< $3.00
Forward Alberta gas prices ($/GJ)	$4.60	$4.10	$4.20

Weighted average hedged price with terms >12 months: Mid-$60s/MWh

1) 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.
2) Net of gains as part of the Company's gas portfolio optimization activities, including sales of previously purchased length.

Delivering 9 consecutive years of dividend growth

Annual dividend increase guidance of 6% to 2025

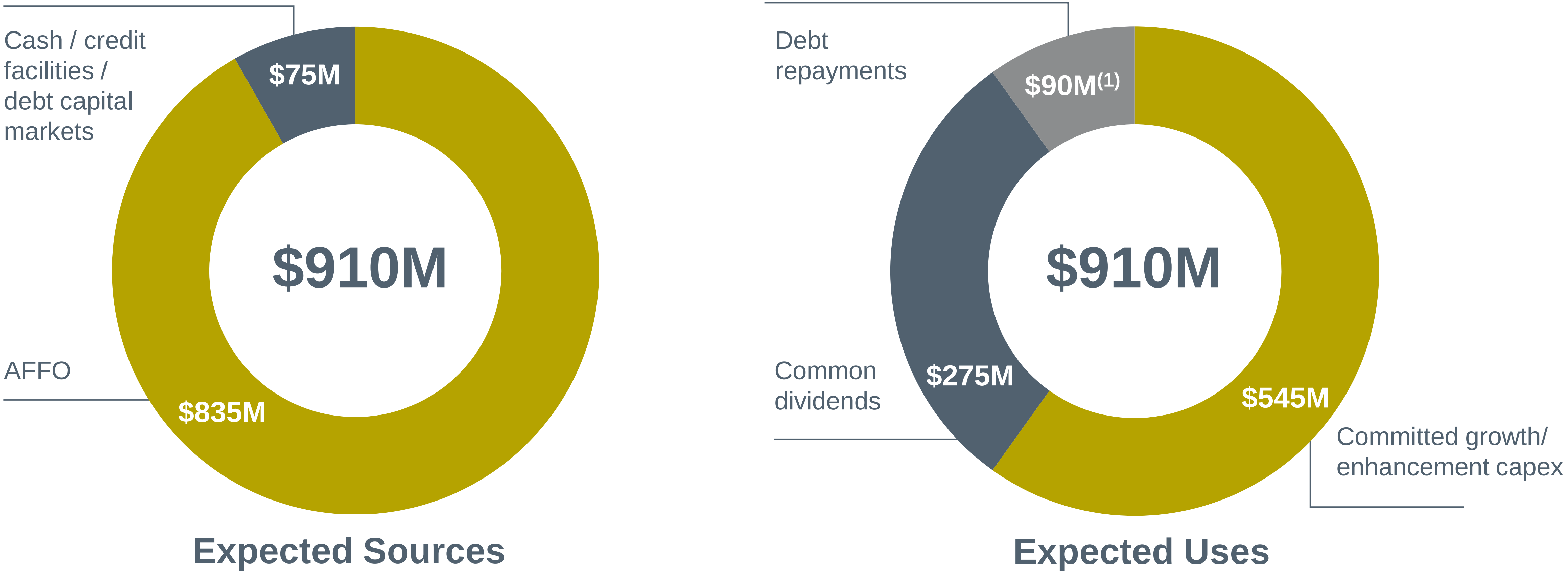


Forecast to be below AFFO payout ratio target range of 45% to 55% through 2025

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

Cash flow and financing outlook

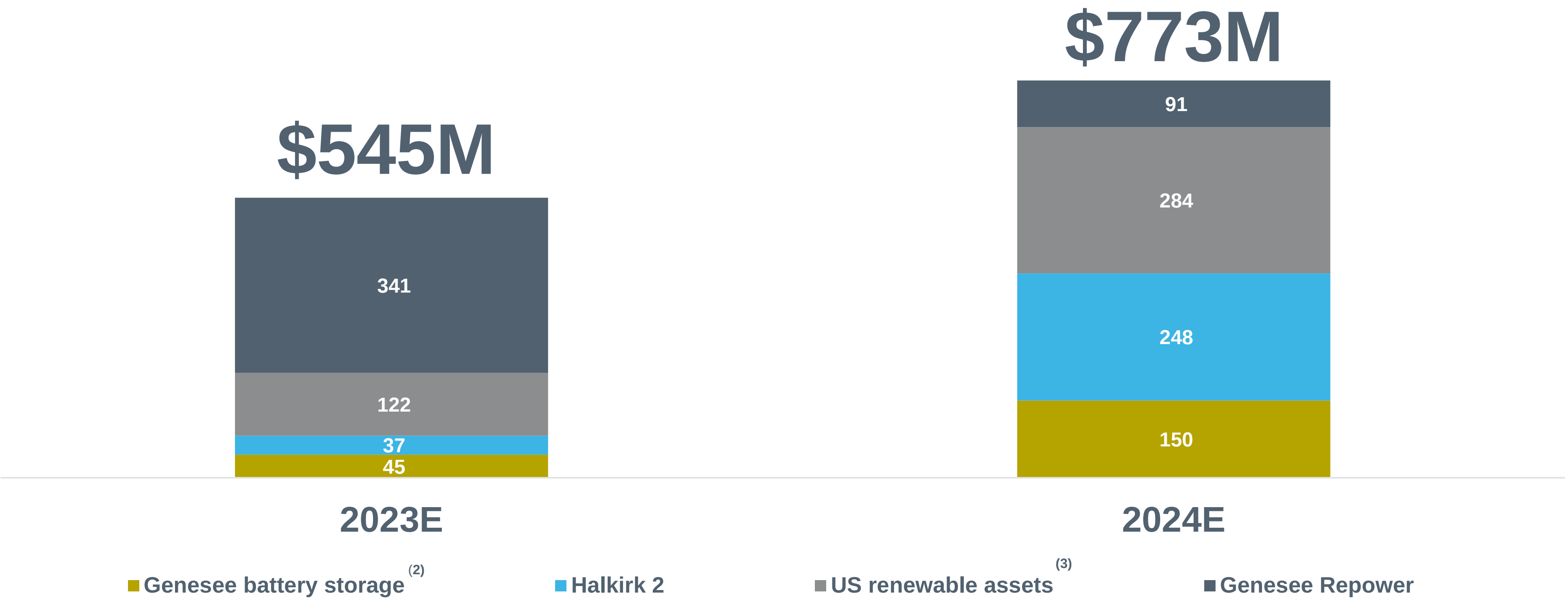
AFFO funds dividend and committed growth capex in 2023



1) Includes principal payments on finance lease payables but excludes debt repayments to tax equity investor and equity accounted investment

Executing on ~$1.3B(1) of growth capex

Committed capital funded by internally generated cashflow, tax equity and minor draw on credit facilities



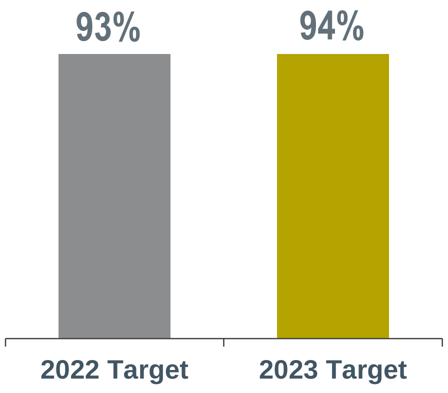
1) Remaining spending on committed capital projects
2) Genesee battery storage of 210 MWs
3) US renewable assets excludes Tax Equity contributions

2023 operational and financial targets

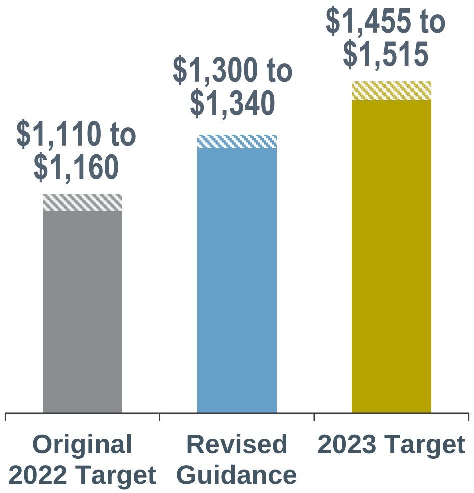
Adjusted EBITDA up 13%[1] driven by asset additions

Sustaining capex ($M)

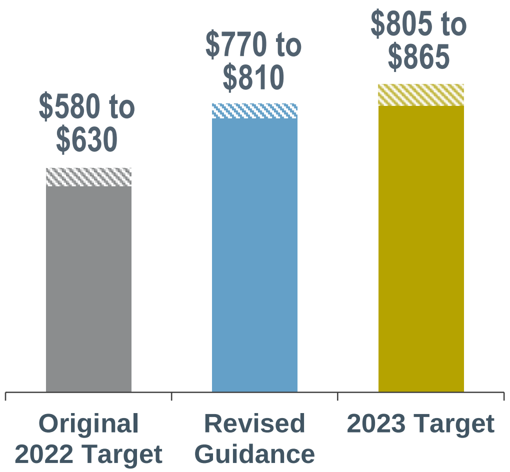
Facility availability



Adjusted EBITDA ($M)



AFFO ($M)



1) Year-over-year increase based on the midpoint of the 2022 Revised Guidance range.

2023 growth targets

Progress on Genesee 1 and 2 repowering project – revised schedule and budget

Advancement of Genesee CCS project and Genesee Carbon Conversion Centre

Continued progress on Halkirk 2 Wind on time and on budget

Investment decision on two renewable projects

Target $600M committed capital for growth

Attractive Investment Opportunity

Resilient strategy drives growth and accelerates net zero by 2045

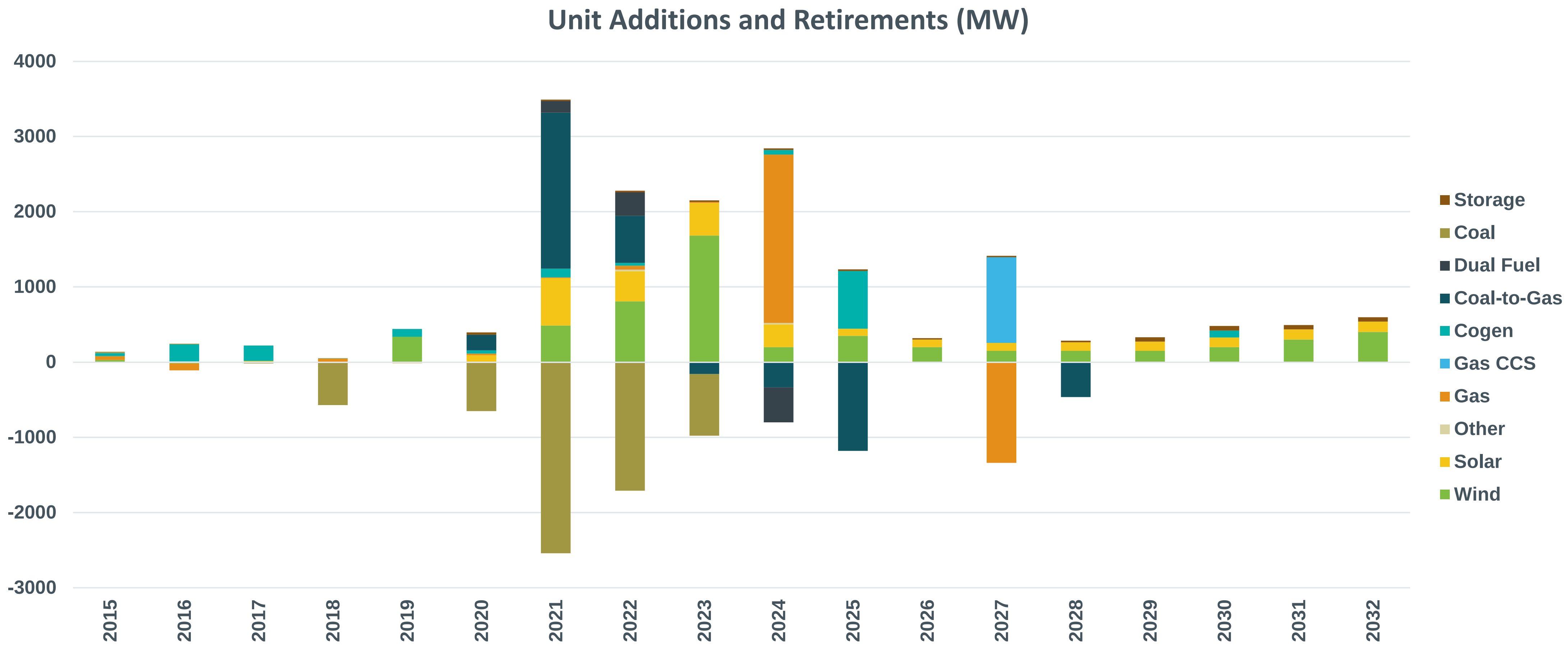
- Leading transition story
- Outlook for Genesee CCS project and carbon emissions reduction is promising
- Positioned for significant renewable growth from large pipeline
- Continue to be a leader in ESG
- Successful natural gas acquisition, optimization and re-contracting track record
- Well positioned for Ontario growth and contract extensions
- Leading position in Alberta power market
- Generating robust cashflows with a strong balance sheet

Appendix

- Alberta power market - supply
- Alberta power market - fuel source breakdown
- Natural gas critical to North American reliability
- Credit rating metrics
- Debt maturity schedule
- Decarbonization approaches across our portfolio
- Political and Environmental Regulations

Alberta power market

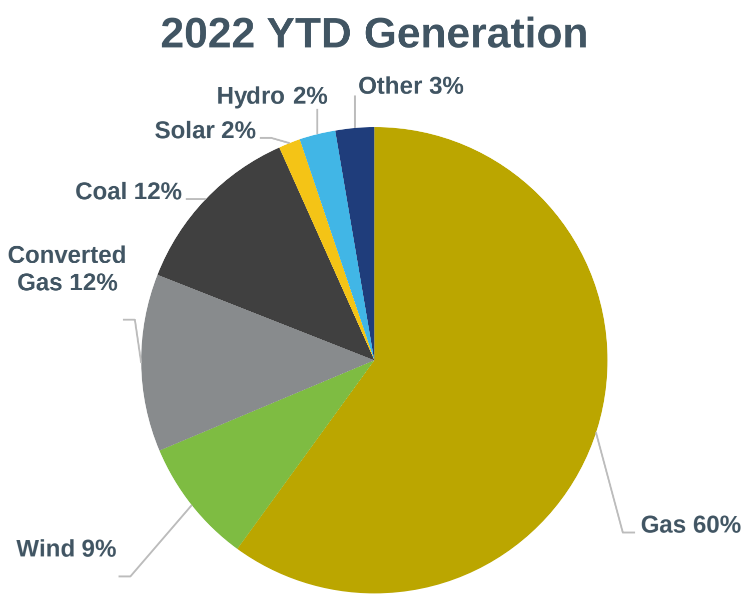
A market in transition

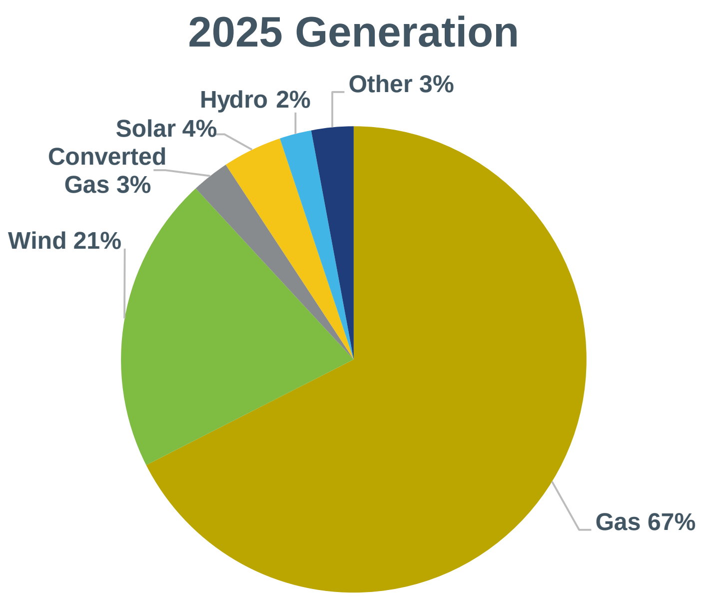


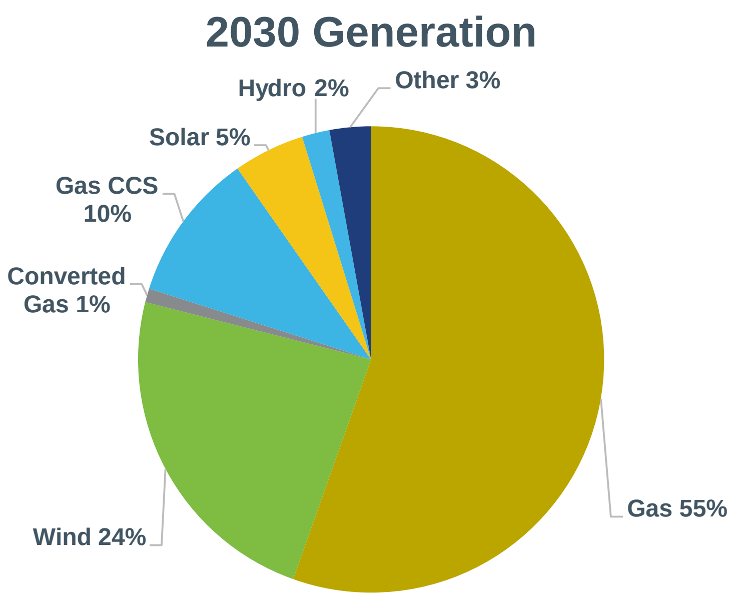
Source: AESO

Alberta power market

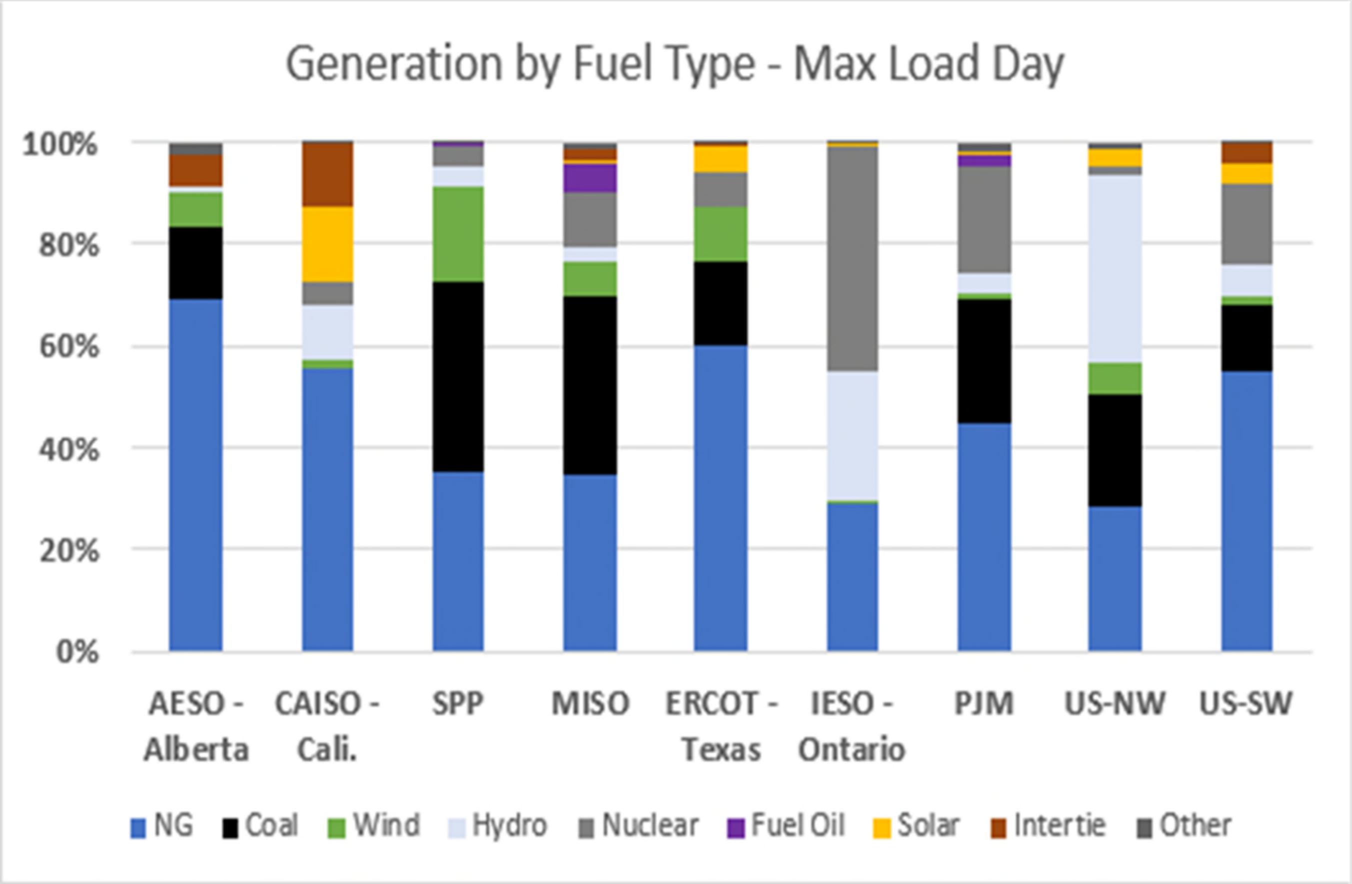
Gas provides the majority of electricity output







Natural gas critical to North American reliability



Financial stability and strength

Strong balance sheet and continued 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

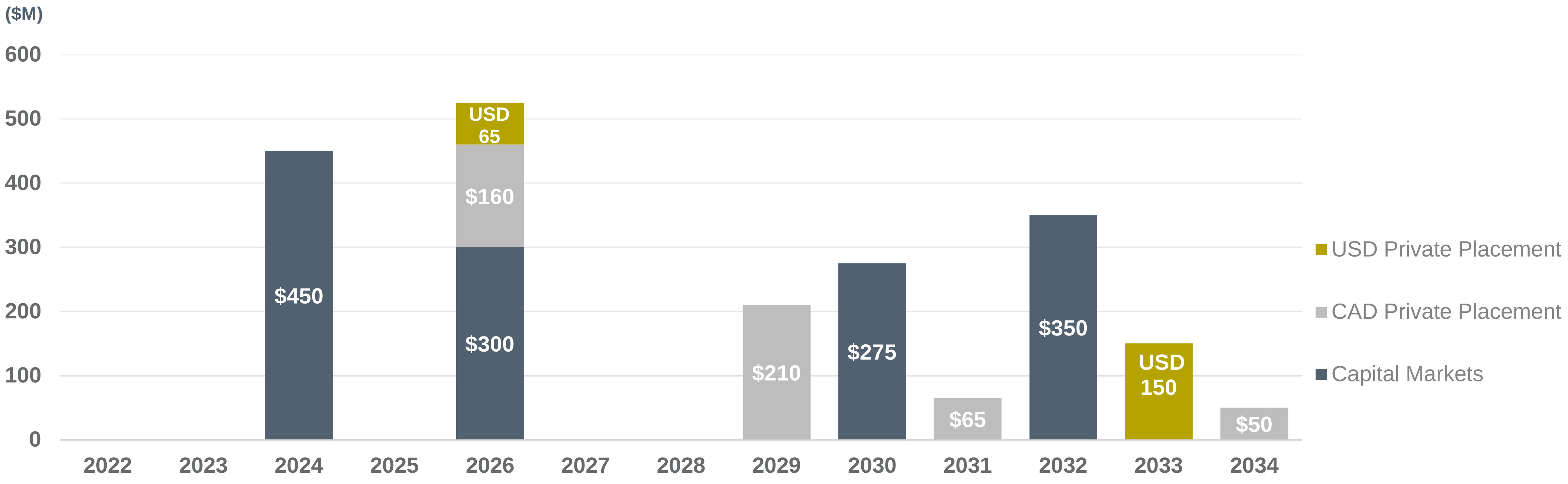
- Target cashflow to debt > 20%
- Target EBITDA / Interest > 4.5x

- Both rating agencies affirmed ratings in April 2022
- 2023 forecast to be another strong year with credit metrics above current ratings threshold

Debt maturity profile(1)

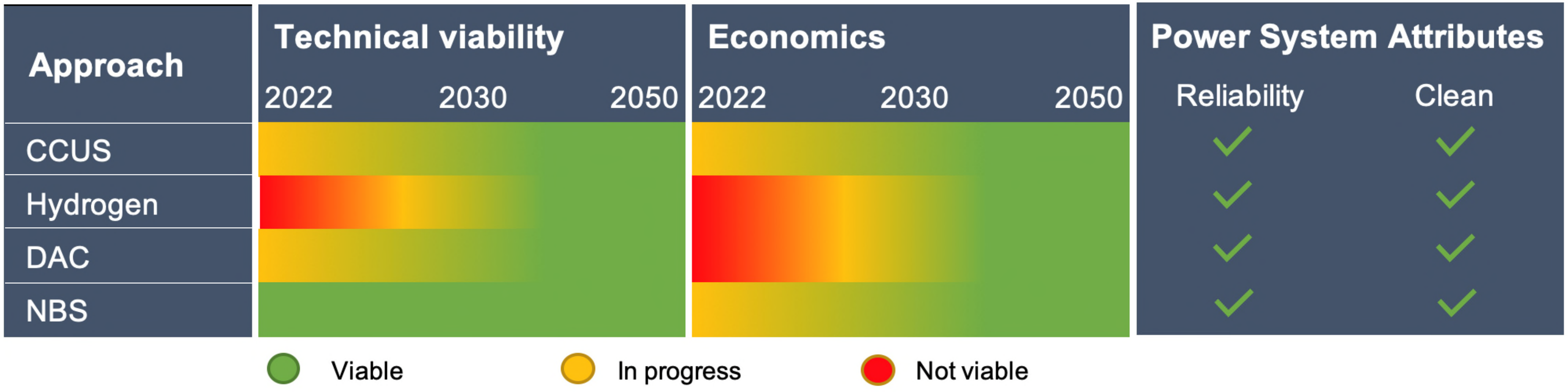
Well spread-out debt maturities supported by long asset lives

- Strong liquidity with $1B in sustainability linked credit facilities maturing in 2027, that are currently unutilized
- Underlying on refinancings in 2024 – 2026 hedged well below current rates



1) Debt amounts as of September 30, 2022. Schedule excludes non-recourse debt, credit facility debt, hybrid instruments and tax-equity financing.

Decarbonization approaches across our portfolio



CCUS = Carbon Capture Utilization & Storage, DAC = Direct Air Capture, NBS = Nature Based Solution

- Continue to work through the technical viability and economics of these approaches in the short term to enable their deployment in the medium to long term
- Decarbonization approaches support our natural gas fleet in providing ongoing reliable, affordable and clean power
- Mid-life natural gas acquisition strategy is underpinned by acquiring critical natural gas generation with decarbonization potential

Political and Environmental Regulations

Government of Canada

- Committed to explore carbon contracts for differences (CCFDs) and other approaches to ensure carbon pricing certainty (Emission Reduction Plan)
- Announced details of CCUS ITC framework and released draft implementing legislation; announced separate Clean Technology and Clean Hydrogen ITC frameworks
- Launched Strategic Innovation Fund that supports deployment of CCS and offered constructive partnerships with industry
- Initiated development of Federal GHG offset protocol for CCUS/DAC
- Released Proposed Clean Electricity Framework – clear acknowledgement of need to balance sustainability with affordability and reliability, of role for abated and unabated natural gas, and need to accommodate regional differences
- Confirmed Alberta, Ontario and B.C. will continue to implement their own carbon pricing systems for industrial emitters through 2030

Political and Environmental Regulations

Alberta Government

- Announced projects selected to proceed to evaluation phase in CCUS Hub process, including Enbridge Open Access Wabamun Hub
- Confirmed details for TIER framework through 2030, including carbon price and electricity stringency trajectory, and CCUS-related credits and instruments

Ontario Government / IESO

- Released Resource Eligibility Interim report, along with Long-Term RFP and Expedited Process, seeking up to a maximum of 1,500 MW of natural gas

United States

- Passed Inflation Reduction Act (IRA) into law, investing >$300B in energy security and climate change programs over the next 10 years as well as “unlocking” permitting

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 October 28, 2022 for the third 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 the 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 around: our company-wide targets specific to climate-related performance, including reduction of emissions and emission intensity and achieving net zero by 2045, investment in carbon capture and utilization technology, completion of the Genesee Carbon Conversion Centre, and commercial application of carbon conversion, capture and storage technologies; implementation of Ops 2030 including expected financial improvements and the Data Operations Centre; implementation of our approach to decarbonization, and our pathway to net zero by 2045 and the expected reduction of carbon from our operations; our 2023 targets and outlook for 2022, including for facility availability, sustaining capital expenditures, AFFO, AFFO/share, Adjusted EBITDA, growth targets, sustainability targets, equivalent availability factor (EAF), capacity factor, and controllable costs; expectations around timing and costs associated with our upgrades, projects, timelines, and repowering plans at our Genesee facility with addition of battery storage, including being off coal in 2023; expectations of timing, funding, costs, and financial impacts for existing, planned, and potential growth projects and acquisitions, including the acquisition; expectations around future growth opportunities; expectations of adjusted EBITDA by fuel source; our long-term targets for total shareholder returns, AFFO payout ratio; future dividend growth; future pricing of electricity and market fundamentals in existing and target markets; sources of funding, adequacy and availability of committed bank credit facilities and future borrowings; and future cash requirements, including debt repayments, capital expenditures, dividends and distributions.

These statements are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical 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 and other energy prices 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 Risks and Risk Management in the Company's 2021 Integrated Annual Report and Risks and Risk Management, 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.

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Common Shares

- Toronto Stock Exchange (TSX: CPX)
- 52-week low/high share price ($36.65 / $51.90)
- Shares outstanding: ~117 million
- Market cap: ~$5.2 billion
- 2022 average daily trading volume: 570,000 shares
- Dividend yield: ~5.0%