Powered by Purpose

2022 Investor Day

Capital Power

Executive Leadership Team

Jacquie Pylypiuk
SVP, People, Culture and Technology

Bryan DeNeve
SVP, Operations

Chris Kopecky
SVP, Chief Legal, Development and Commercial Officer

Brian Vaasjo
President and Chief Executive Officer

Sandra Haskins
SVP, Finance and Chief Financial Officer

Kate Chisholm
SVP, Chief Strategy and Sustainability Officer

Steve Owens
SVP, Construction and Engineering

Forward-looking information

Cautionary statement

Certain information in today's presentations and in responses to questions contains forward-looking information. Actual results could differ materially from conclusions, forecasts or projections in the forward-looking information, and certain material factors or assumptions were applied in drawing conclusions or making forecasts or projections as reflected in the forward-looking information.

Please refer to the forward-looking information slides at the end of the presentation and in our disclosure documents filed with securities regulators on SEDAR, which contain additional information about the material factors and risks that could cause actual results to differ materially from the conclusions, forecasts or projections in the forward-looking information and the material factors or assumptions that were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.

The forward-looking information contained in today's presentations is provided for the purpose of providing information about management's current expectations and plans relating to the future. Such information may not be appropriate for other purposes.

Agenda

Our Resilient Strategy
Brian Vaasjo

Powering a Sustainable Future
Kate Chisholm

Operational Excellence
Bryan DeNeve

Progress on Committed Projects
Steve Owens & Chris Kopecky

Robust Growth Opportunities
Chris Kopecky

Advancing Genesee CCS
Brian Vaasjo & Sandra Haskins

Positive Power Market Dynamics
Sandra Haskins

Stable Financial Strategy
Sandra Haskins

Value Proposition
Brian Vaasjo

Our Resilient Strategy

- Executing our strategy
- Progress on sustainability targets
- Advancing the “social” in ESG

Our Strategy – Powering our Future

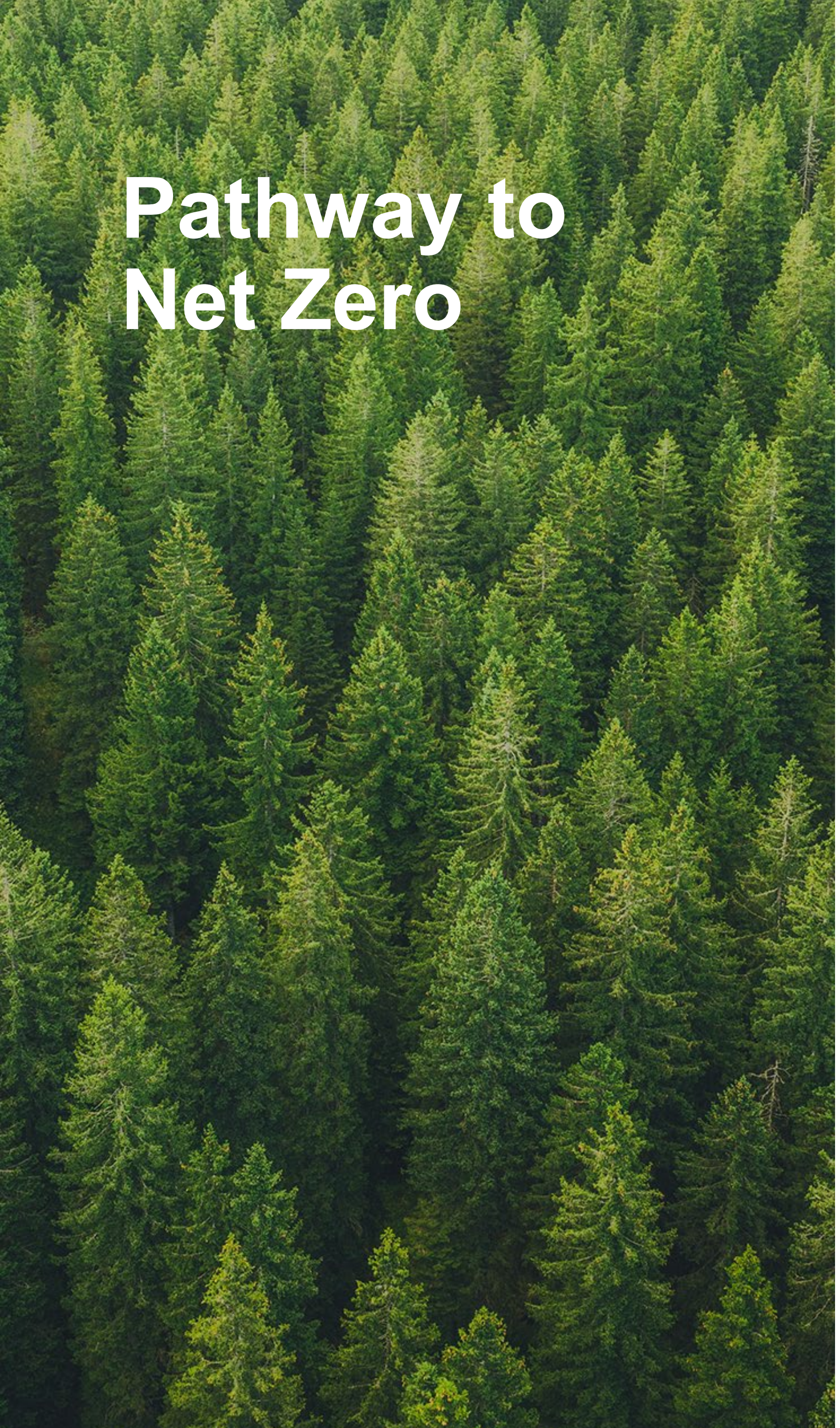
To acquire and/or optimize natural gas assets

- Re-contracting proving out
- Public and investor sentiment evolving on natural gas for reliability and affordability
- Ontario opportunity
- Midland excellent strategic acquisition in MISO
- Alberta strategy of repositioning assets

Decarbonization

- Broad North American support for decarbonization
- Limited Notice to Proceed (LNTP) on Genesee Carbon Capture and Sequestration (CCS) project
- Net zero by 2045

To develop, acquire and optimize renewable power generation assets



Pathway to Net Zero

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

Strong Positioning in the Alberta Market

Genesee opportunity

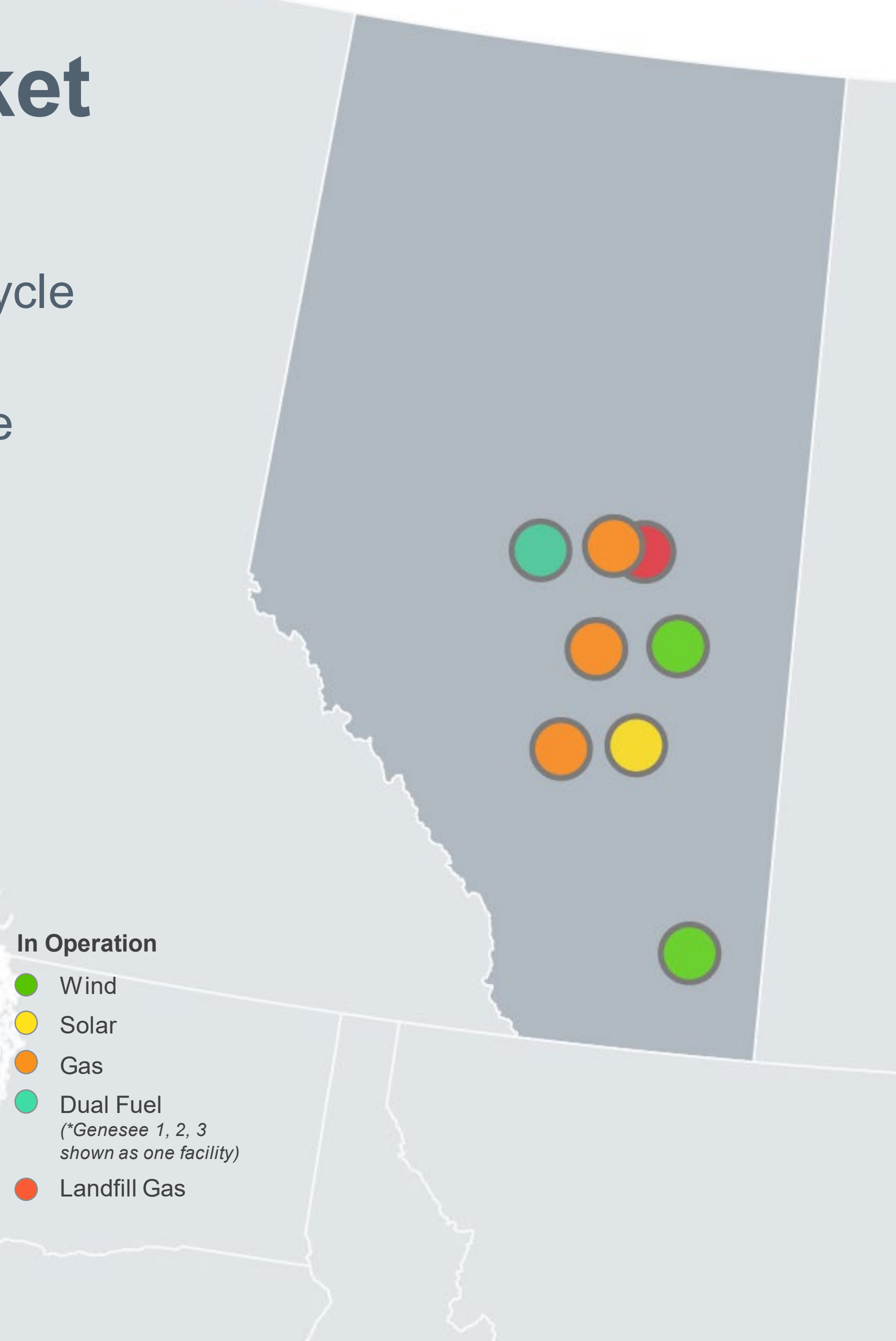
- Repowered units 1 and 2 to use best-in-class natural gas combined cycle technology and CCS technology to reduce emissions
- Optimized to provide reliable, dispatchable power for decades to come
- Favourable federal and provincial environmental policies are evolving

Best thermal assets in the market

- Shepard and Clover Bar are best of their kind in the market

Supportive government policy

Strong Alberta power market dynamics



Outlook: 2022 and 2023

Very strong growth

2022 adjusted EBITDA growth of 16%
from the original target

2023 adjusted EBITDA growth of 13%

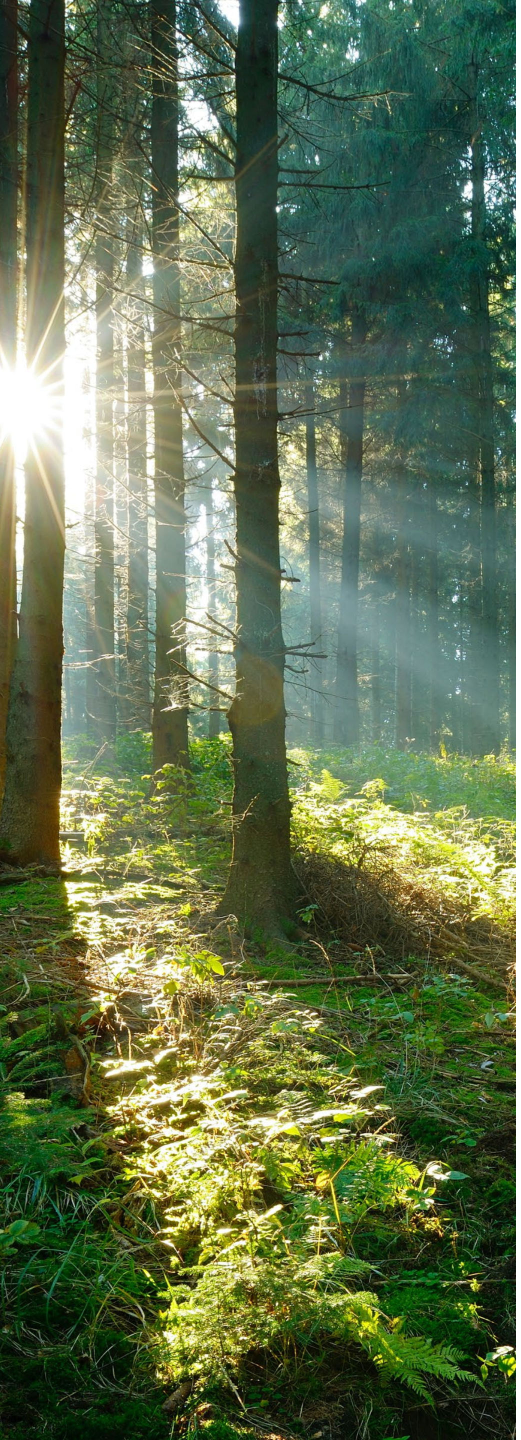
2023: marking a decade of continuous dividend growth

Strong TSR

Top of our peers with 20% for 2022 YTD

25% per year for 5 years

2023: robust outlook for growth



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

Powering a Sustainable Future

- Government policy update
- Strategy update
- Sustainability progress
- What's next

2021 Regulatory Policy Context

- Healthy Environment and a Healthy Economy (HEHE) plan & "net zero electricity grid"
- Technology Innovation and Emissions Reduction (TIER) regulation uncertainty
- Importance of natural gas to reliability and affordability and CCUS projects if sun/moon/stars align

2022 Regulatory Policy Development – Q1/Q2

JANUARY '22

—
IEA releases "Canada 2022 – Energy Policy Report" suggesting that CCUS will play a major role in Canada's plan for net zero

MARCH '22

—
ECCC releases CES discussion paper affirming NZ2035 and importance of reliability and affordability

—
GOC launched Strategic Innovation Fund (SIF) Net Zero Accelerator initiative to support innovative projects in high-emitting sectors

—
ECCC released Emissions Reduction Plan with commitment to explore CCFDs and other approaches to ensure carbon pricing certainty

—
Enbridge Open Access Wabamun Carbon Hub selected to proceed to evaluation phase in GOA CCUS hub process

APRIL '22

—
Federal Budget 2022 includes details that supports CCUS, DAC, capture projects and transportation and sequestration through refundable investment tax credits (ITC)

JUNE '22

—
GOC announced development of the Federal GHG Offset Protocol for CCUS/DAC

—
GOA initiates TIER consultation – now most likely increasing stringency benchmark for electricity by 2% per year and satisfactorily "equivalent"

—
AESO releases Net Zero Report

2022 Regulatory Policy Development – Q3/Q4

JULY '22

—
GOC releases Proposed Clean Electricity Frame

—
ON IESO releases Natural Gas Phase Out Impact Assessment/ Natural Gas Report

AUGUST '22

—
U.S. passes 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

—
GOC releases Draft CCUS ITC Legislation

OCTOBER '22

—
PM/relevant Ministers make public announcements of dev't of "bespoke" CCFDs to provide sufficient policy stability to enable investment in infrastructure necessary for energy transition and acknowledge need to remain competitive with U.S. IRA

—
ON IESO releases Resource Eligibility Interim report, along with Long-Term RFP and Expedited Process, seeking up to a maximum of 1,500 MW of NG

NOVEMBER '22

—
GOC releases Fall Economic Statement, establishing Canada Growth Fund

—
GOC announces Capital Power as one of 10 companies selected to move forward as part of ISED NZA/CTA process

Decarbonization Approaches

Net Zero by 2045

We are advancing technologies to enable a clean power system with abated natural gas to achieve net zero by 2045 reliably and affordably.

CCUS

Baseload generation with access to carbon sequestration hub

Hydrogen

Mid-merit / peaking generation with access to hydrogen supply

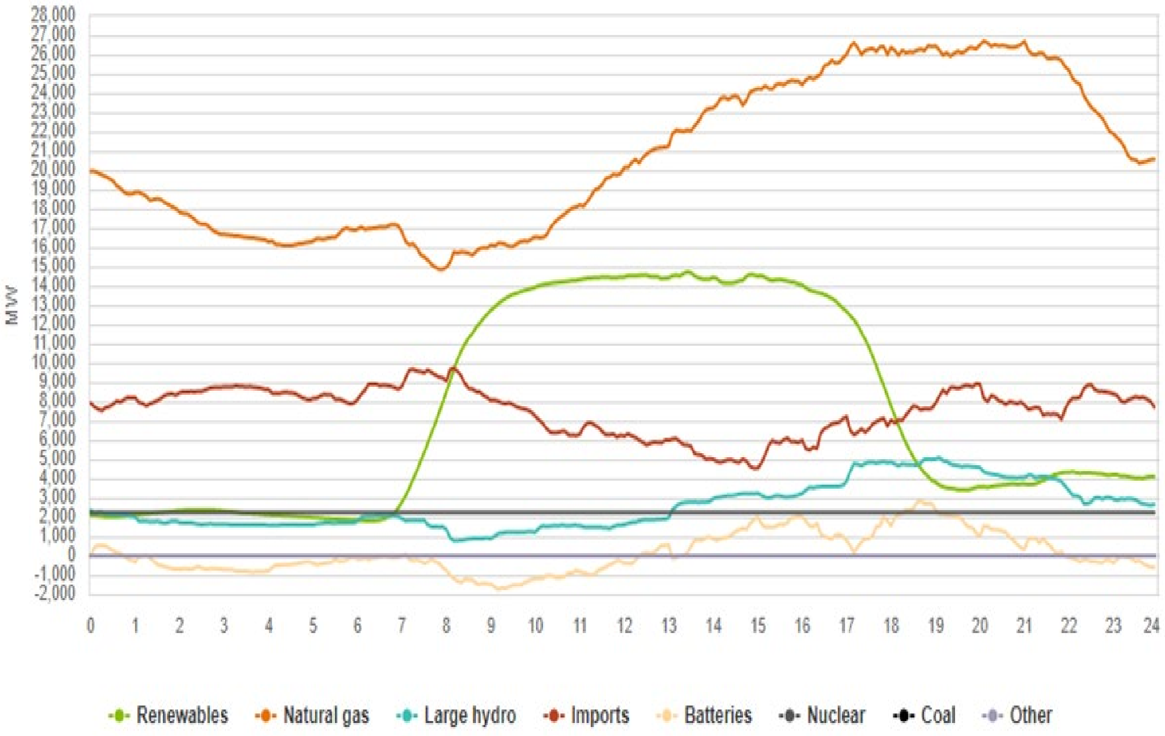
Negative Abatement

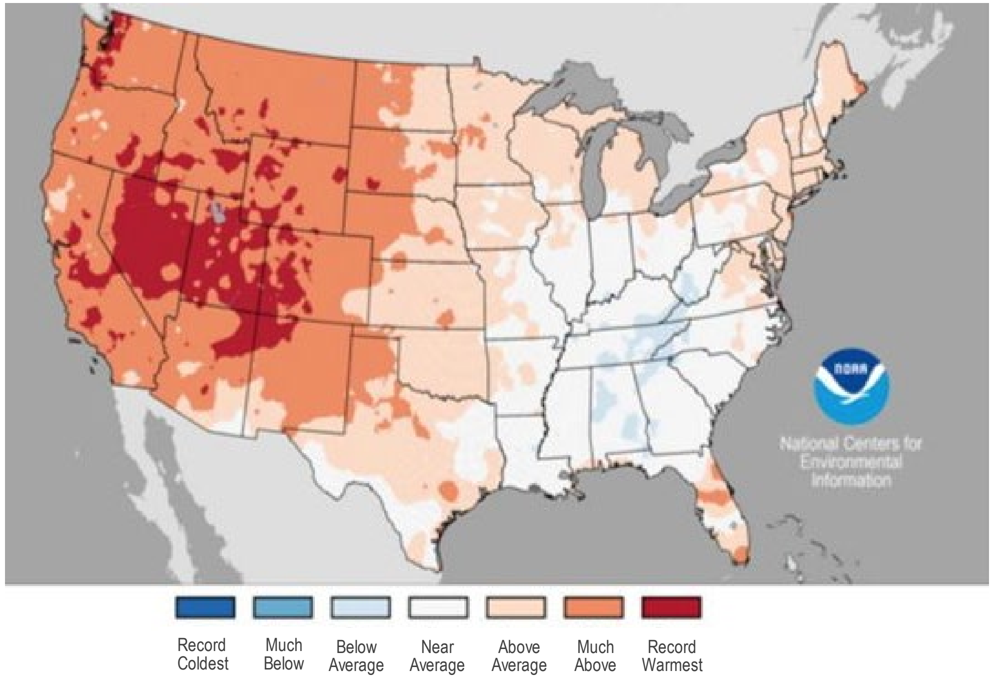
Mid-merit / peaking generation with no CCUS or hydrogen option

CAISO Practical Reality

Supply Trend

Energy in megawatts broken down by resource in 5-minute increments *09/06/2022*



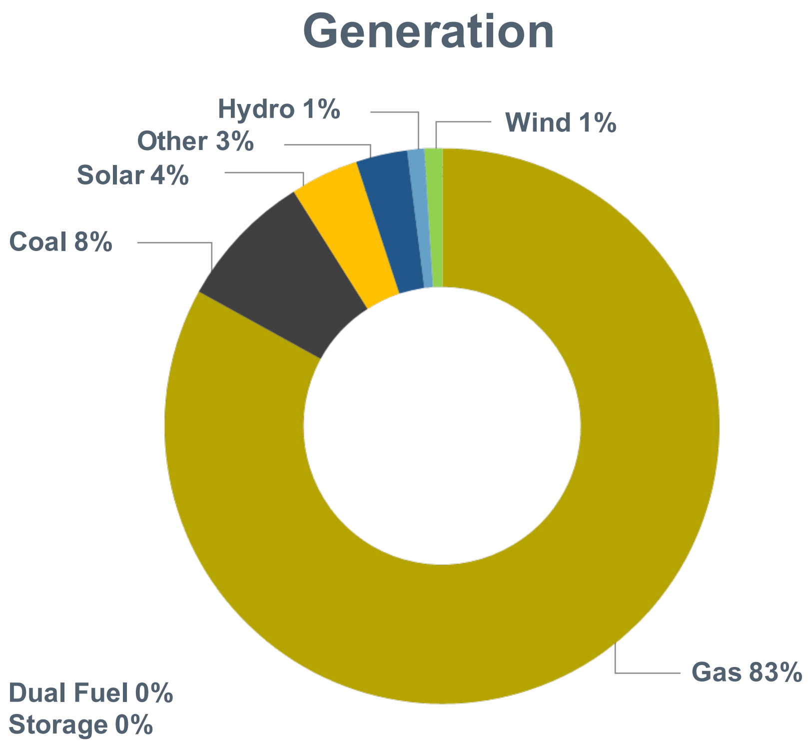


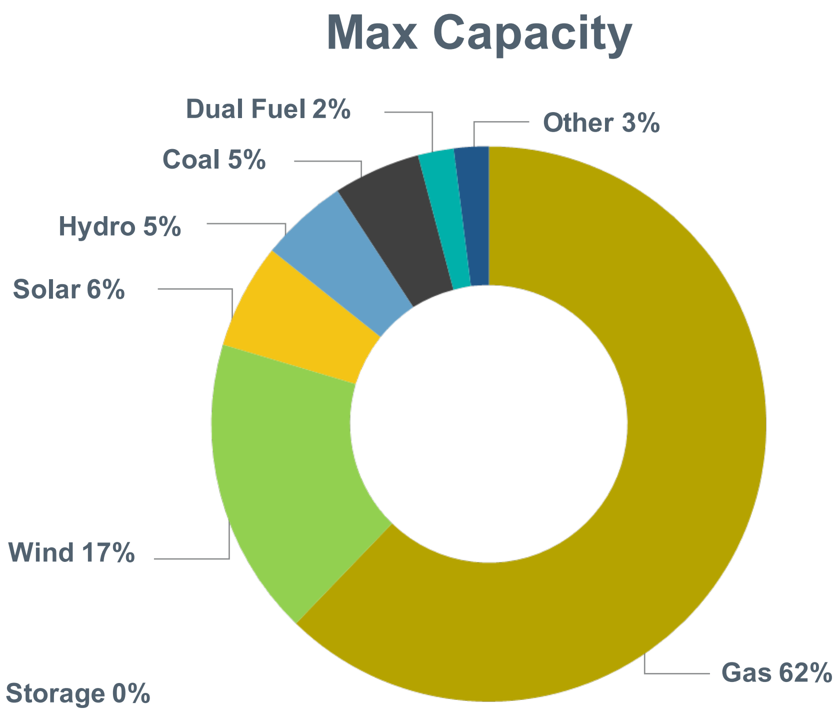
Source: California ISO - Supply, Today's Outlook (caiso.com)

Source: http://www.caiso.com/TodaysOutlook/Pages/Supply.aspx; CAISO Summer Market Performance Report 2022 @ p.20

Reliability

Natural gas ensures critical system reliability when wind, solar and battery storage are not available

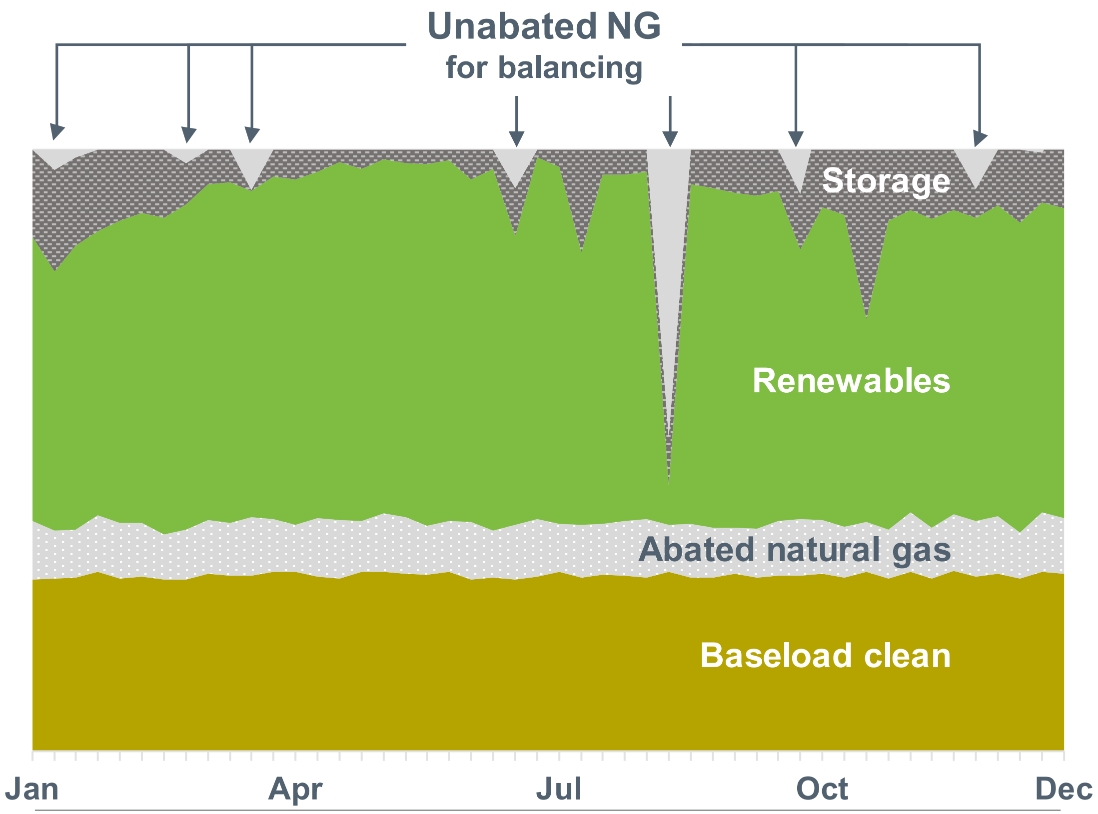




Source: AESO Supply Mix by Type Report, November 8, 2022 HE14 ambient temperature –17, wind chill -27

Future Net Zero Supply Stack

Generic Annual Generation Stack



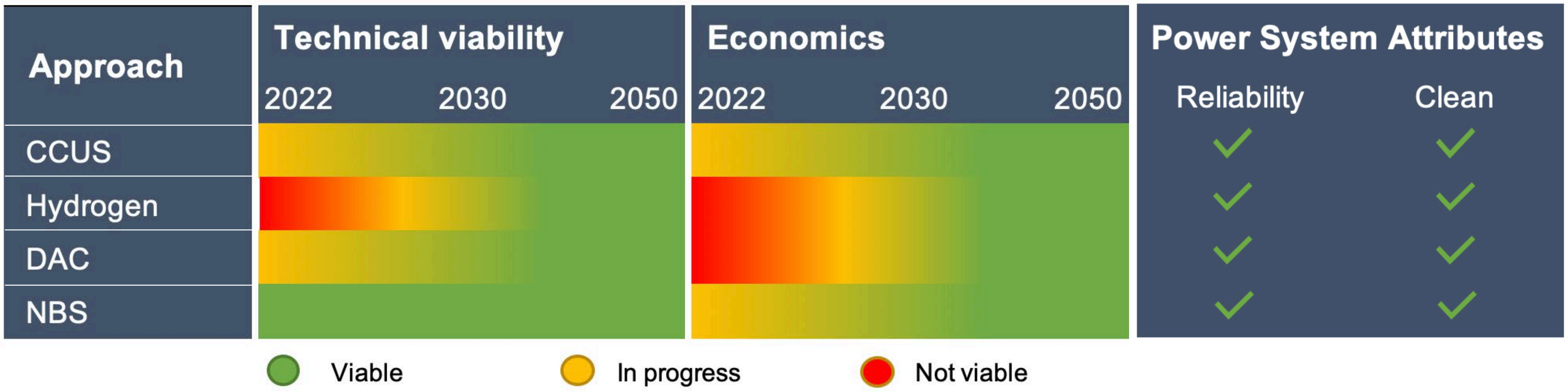
Baseload clean may include: nuclear, hydro, hydrogen and natural gas with CCUS

Abated mid-merit supply may include: natural gas with CCUS and hydrogen

Renewables supply may include: solar and wind

- Generation from unabated natural gas will reduce over time
- Capacity and flexibility provided by natural gas will be vital to preserving power system reliability to:
    - Balance seasonal variability and intermittencies from renewables and storage
    - Help respond to variability in demand

Decarbonization Approaches Across our Portfolio

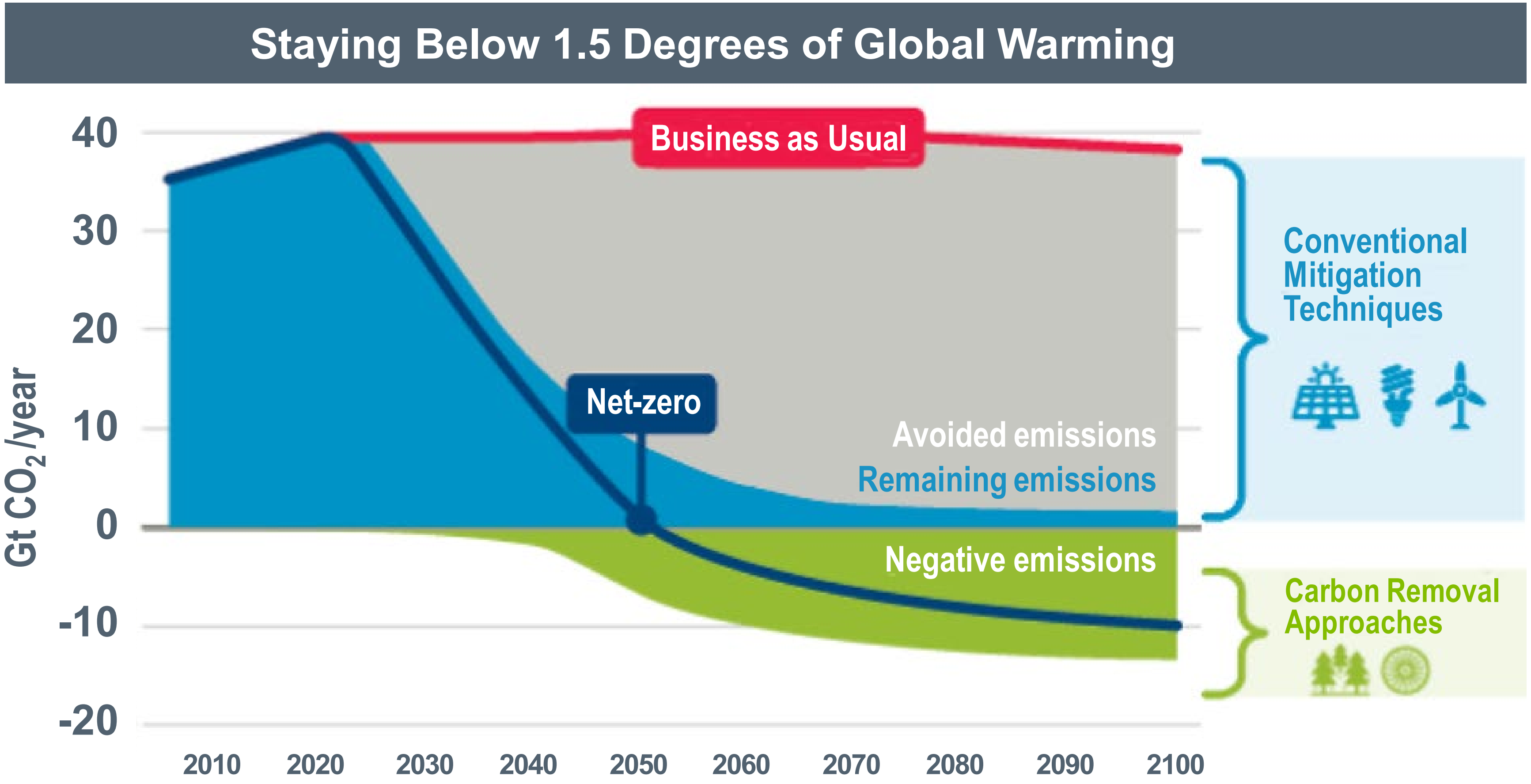


CCUS = Carbon Capture Utilization & Storage, DAC = Direct Air Capture, NBS = Nature Based Solution

- 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

Carbon Avoidance vs Carbon Removals

UN International Panel on Climate Change (IPCC)



"Negative emissions are a necessity, not a luxury on the global path to addressing climate change."

- Canada HEHE Plan

Source: World Resources Institute 2020, adapted from IPCC 2018

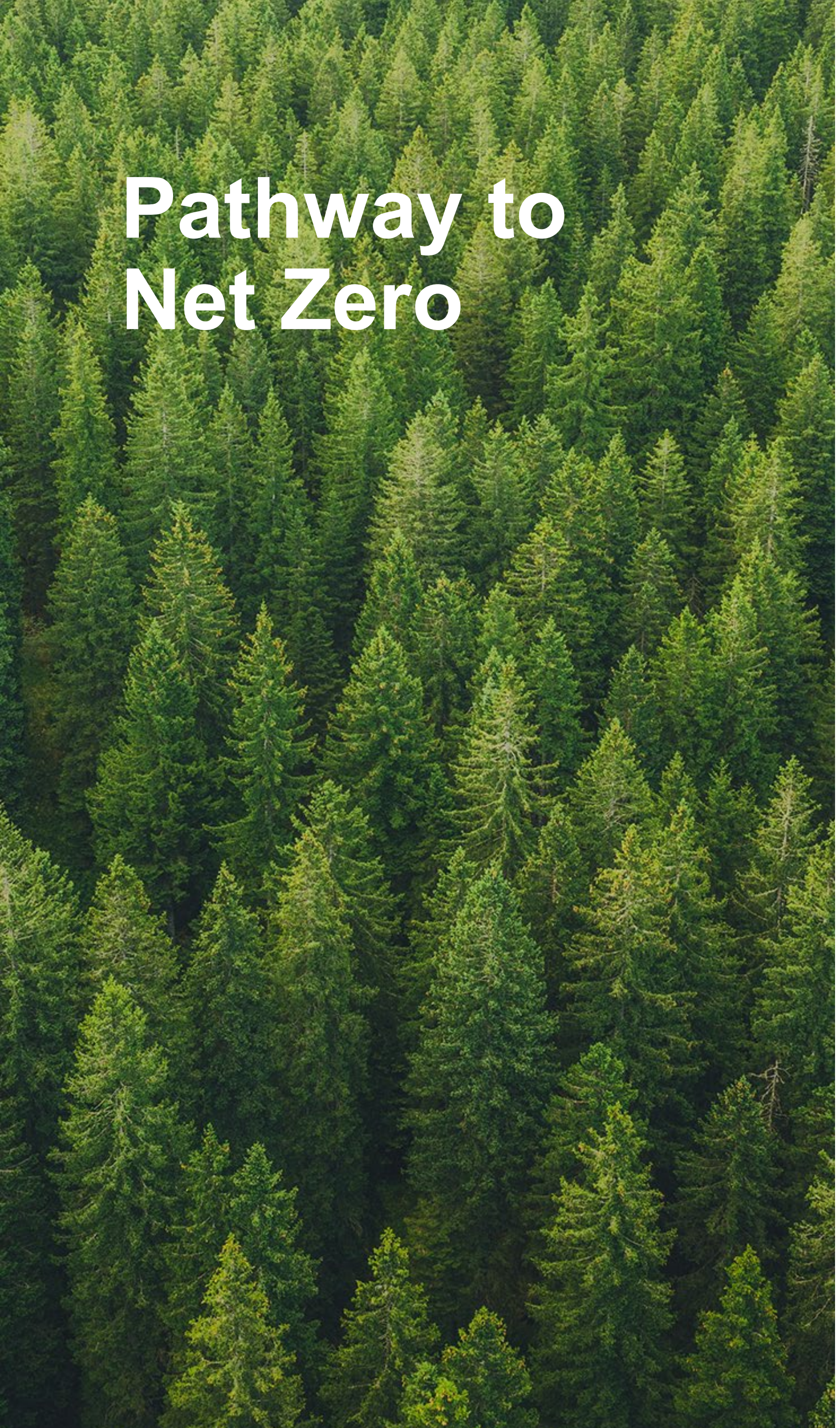
Negative Abatement Solutions

Nature Based Solutions (NBS)

An already proven approach focused on developing and restoring natural carbon sinks to enable carbon removal

Direct Air Capture (DAC)

A maturing technology with expected performance and cost improvement over time offering scalable carbon removal



Pathway to Net Zero

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

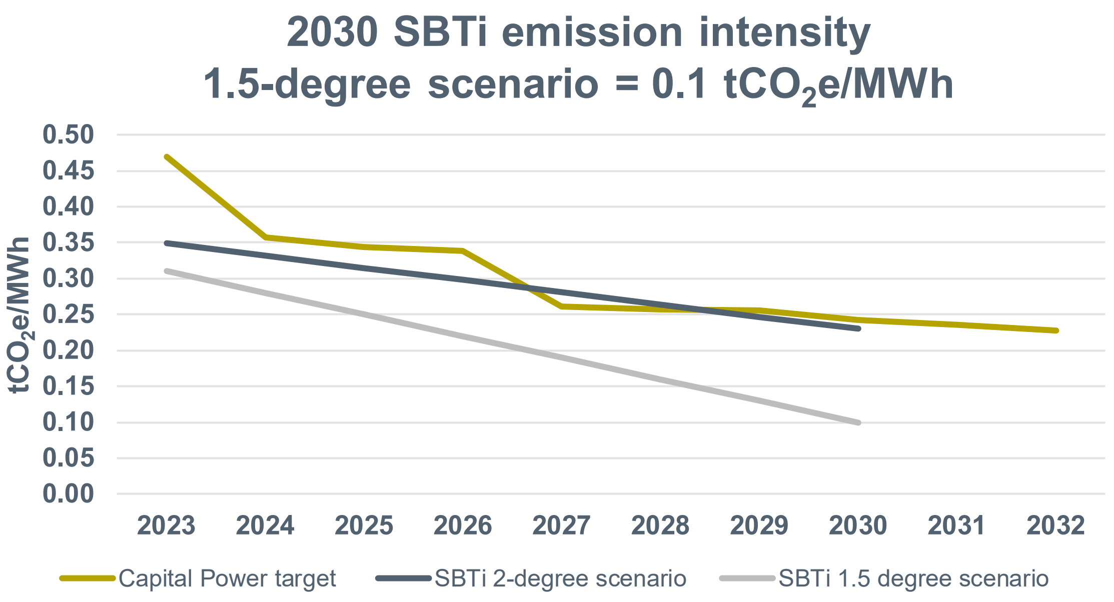
2030–2045

- 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

SBTi* – Requirements for Power Sector



The SBTi's goal to reach an emission intensity of 0.1 tCO_2e/MWh by 2030 is achievable and desirable for entire power systems but cannot be imposed on individual generators like Capital Power, if we want to maintain power that is reliable and affordable throughout the clean energy transition.

Current ability to apply decarbonization approaches to SBTi emission intensity calculation:

Approach	Included in SBTi
CCUS	Yes
Hydrogen	Yes
DAC	No
NBS	No

- Currently, only some of the technology solutions we are investing in qualify under SBTi
- Updates to the GHG Protocol will likely inform how negative abatement is viewed within the context of SBTi

*Science Based Targets initiative

Our Sustainability Targets

	On Track
Achieve net zero by 2045 ***REVISED***	✓
Construct all new natural gas generation units to be carbon capture and/or hydrogen-ready	✓
Reducing Scope 1 CO_2 emissions at Genesee by 50% by 2030 from 2005 levels	✓
Reducing Scope 1 CO_2 emissions by 10% by 2030 from 2005 levels, based on 2019 fleet	✓
Reducing Scope 1 CO_2 emission intensity by 65% by 2030 from 2005 levels	✓
Invest in carbon capture and utilization technology to help us achieve net zero by 2045 and eventually physically decarbonize our natural gas fleet (ongoing) ***REVISED***	✓
Complete the Genesee Carbon Conversion Centre	✓
30% of new hires to be women across our entire workforce	✓
30% reduction in emissions intensity by end of 2025 from 2022 levels	✓
5% of our Alberta natural gas purchases will be from Responsibly Sourced Natural Gas in 2023 ***NEW***	

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

Demonstrating ESG Leadership and Excellence

Committed to transparency and reporting on our progress

Sustainable World

13 CLIMATE ACTION

Net Zero by 2045

People

8 DECENT WORK AND ECONOMIC GROWTH

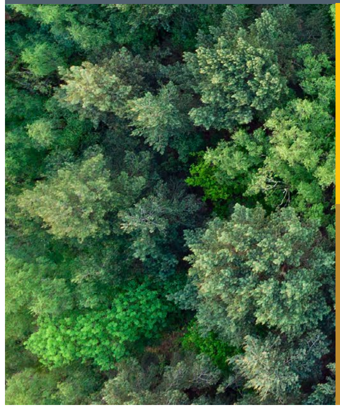
Protect our people

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

Increase diversity in our workforce, including management

Planet



7 AFFORDABLE AND CLEAN ENERGY

Reduce emissions intensity of our operations

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

17 PARTNERSHIPS FOR THE GOALS

15 LIFE ON LAND

Reduce environmental footprint of our supply chain

6 CLEAN WATER AND SANITATION

14 LIFE BELOW WATER

Optimize water use

Powering a Sustainable Future

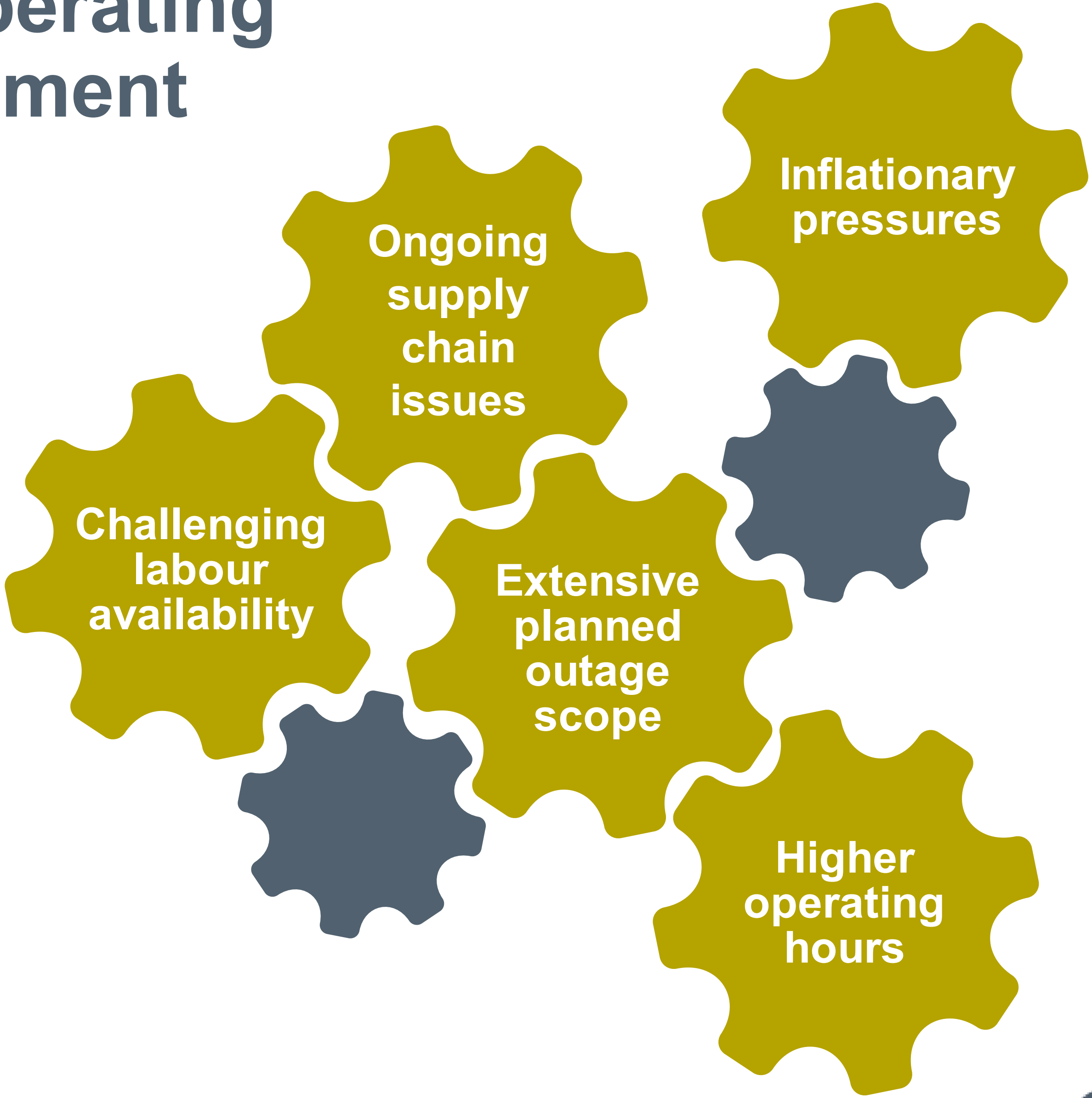
Summary

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

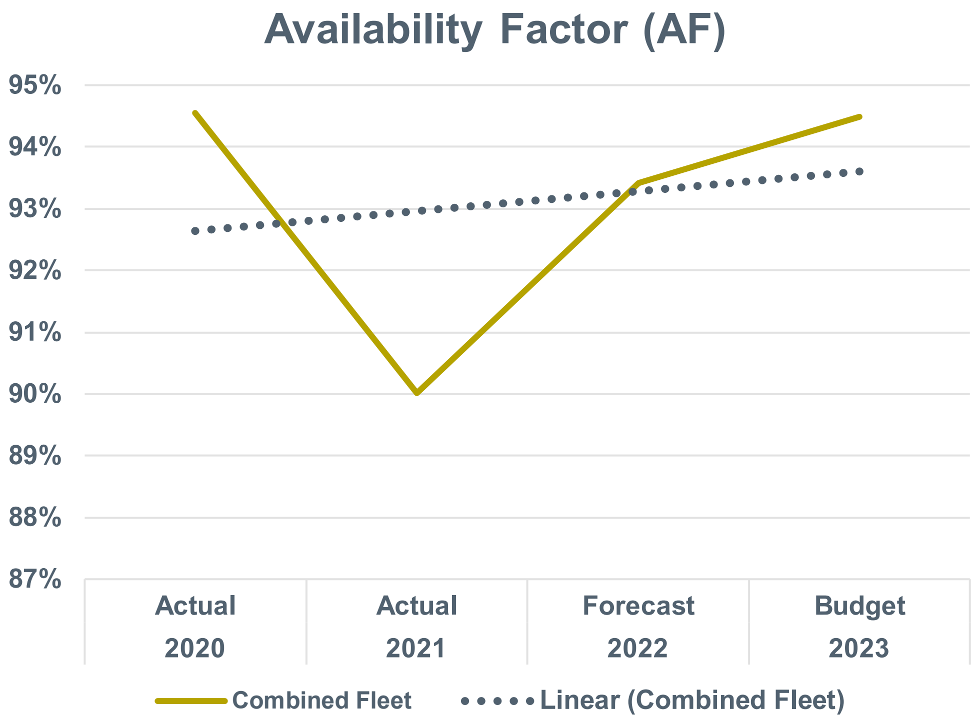
Operational Excellence

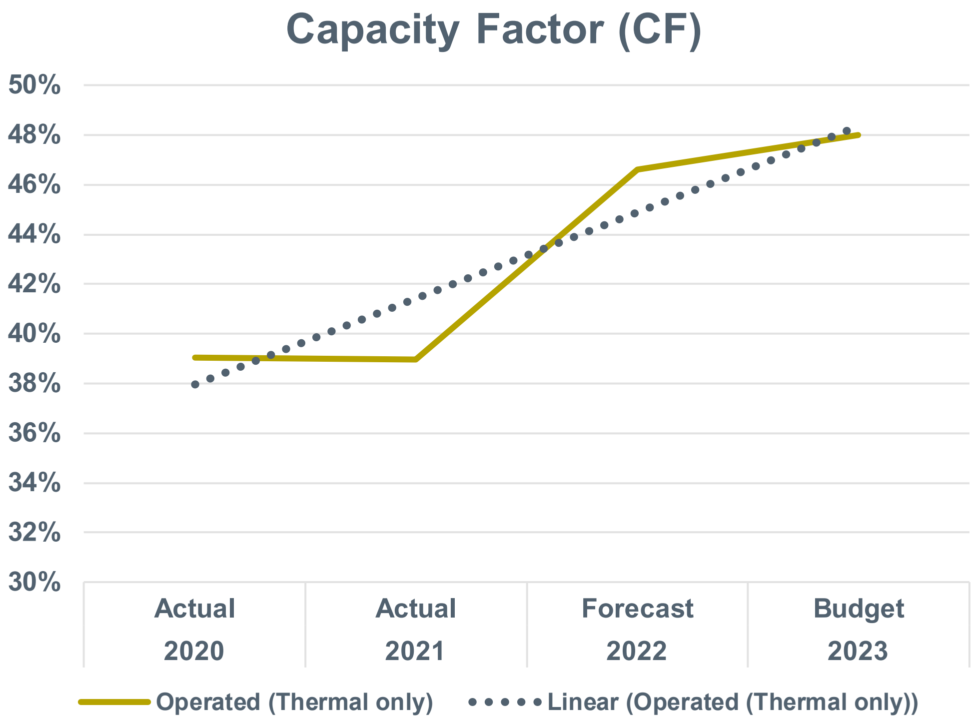
- Strong results in a challenging environment
- Successful execution of planned outages
- Successful implementation of Data Operations Center
- Strong progress on Ops2030
- Excellent safety record

2022 Operating Environment

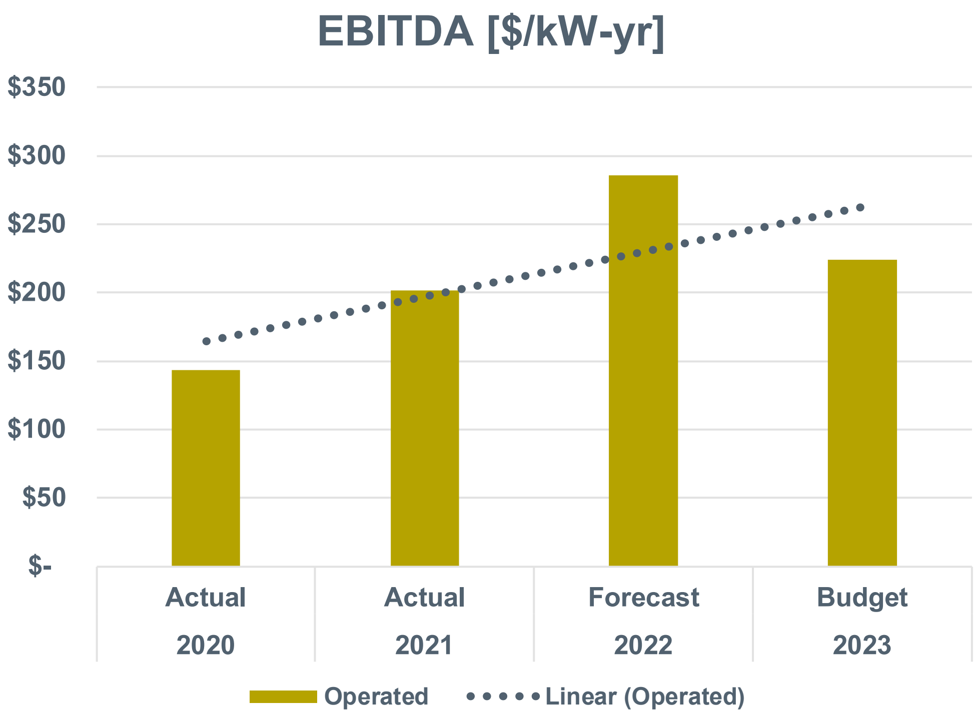


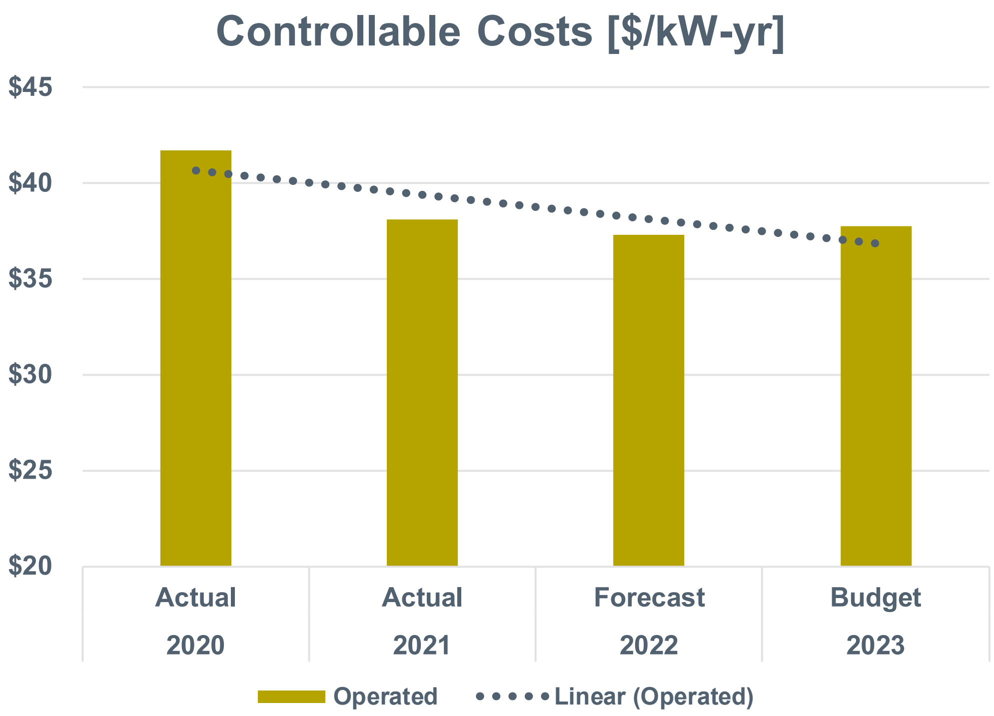
High Plant Availability and Increased Capacity Factor





Favourable Financial Metrics





Successful Execution of Planned Outages

Positioning our fleet for future availability

Arlington Valley
Spring 2022

600 MW | 2:1 combined-cycle natural gas

- Steam turbine main steam valve inspection
- Gas turbine compressor borescope inspection
- HRSG main steam line slope modification
- Chiller 1&2 refurbishment

Goreway
Spring 2022

875 MW | 3:1 combined-cycle natural gas

- Steam turbine main steam valve inspection
- ST generator 50K rotor-in major inspection
- HRSG minor inspection

Genesee Unit 1
Spring 2022

400 MW | coal fired with 25% natural gas capability

- Turbine main steam valves overhaul
- Generator crawl through visual inspection
- Boiler wash, repair and recertification
- Balance of Plant fan overhauls
- 95.5% of EAF target (2023)

Genesee Unit 3
Fall 2022

466 MW | coal fired with 100% natural gas capability

- Turbine main steam valves overhaul
- Turbine LP rotor replacement
- Turbine HIP rotor replacement
- Boiler wash, repair and recertification
- Balance of Plant fan overhauls
- Installation of 100% dual fuel capability
- 95.5% of EAF target (2023)

Over 50% of Ops2030 Achieved

Major projects completed to date

- Arlington Valley third evaporation pond; steam turbine and generator upgrades; chiller upgrades
- Decatur combustion turbine upgrades
- Genesee 1&2 LP turbine upgrade
- Advanced pattern recognition (G3, Clover Bar, Decatur, Arlington and Goreway)
- Fleetwide process data upgrade (PI Vision)
- Genesee 3 HIP turbine upgrade
- Genesee 3 dual fuel transformation

Major projects currently underway

- Advanced pattern recognition (York and East Windsor)
- Ontario and Arlington upgrades

Adjusted EBITDA improvement

- Projects completed to date – $27M
- Projects to be completed by 2030 – $25M

$50M Adjusted EBITDA by 2030

Implementation of Data Operations Centre

Fleet analytics, monitoring and diagnostics

Remote operations

Resource sharing and coordination

Central reporting function

Health and Safety Core to our Values

Received 2022 Electricity Canada President's Award for Safety Excellence in Generation

- HSE Performance Index promotes activities that positively influence HSE performance and is tied to our employee short-term incentive program
- Through October 2022, and compared to a baseline trend established in 2021, successfully "bending the curve" downwards on overall TRIF
- Significantly expanded employee access to mental health supports

Operational Excellence

Summary

- Strategically navigating and responding to challenges in the operating environment
- Successful execution of planned outages to maintain and optimize our fleet
- On track to meet our $50M adjusted EBITDA by 2030 target from Ops2030 projects
- Successful implementation of the Data Operations Centre
- Improved our health and safety performance

Progress on Committed Projects

- $1.3B committed capital projects through 2024
- Genesee Repowering on time to meet our off-coal commitment in 2023
- Developing carbon free assets using the latest technology

Genesee Units 1 and 2

Repowering

- Over 95% of materials on-site
- Significant progress on the EDTI switchyard has been achieved since receiving our AUC permit on October 6
- Labour attraction and retention has been a challenge in the early stages of the mechanical scope, but attraction and retention incentives have shown early success

Genesee Units 1 and 2
Repowering

- On schedule to achieve simple cycle commissioning of both units in 2023, followed by combined cycle in Q2 2024
- Forecasting 10% budget overrun due mainly to switchyard cost increases

Genesee Battery Energy Storage System (BESS)

210 MW net a/c Battery (1 hour discharge)

- AESO have initiated a process to review and potentially increase Most Severe Single Contingency (MSSC) beyond 466 MW
- Investigating other cost-effective means of providing primary frequency response
- If proceeding with CCS – parasitic load will consume some of the MSSC gap

Solar Update

North Carolina solar

- Exploring options with Duke to progress projects
- Poor project returns remain likely

Clydesdale Solar (formerly Enchant)

- First Generation on Nov. 3, 2022
- COD on schedule for December 2022
- Budget overrun – consistent with Q1 project update
- Overrun attributable to supply chain pressures and significant increases in transportation costs

Halkirk 2 Wind

- 151 MW wind project
- Paintearth County, Alberta (north of Halkirk 1 Wind)
- $274M

Milestone	Schedule Date
Optimization and technology selection	On-going
AUC Amendment filing	October 2022
Anticipated AUC approval	Q2/3 2023
Construction start scheduled	Q3 2023
Back-feed power and commissioning start	Q3 2024
COD	Q4 2024

Progress on Committed Projects

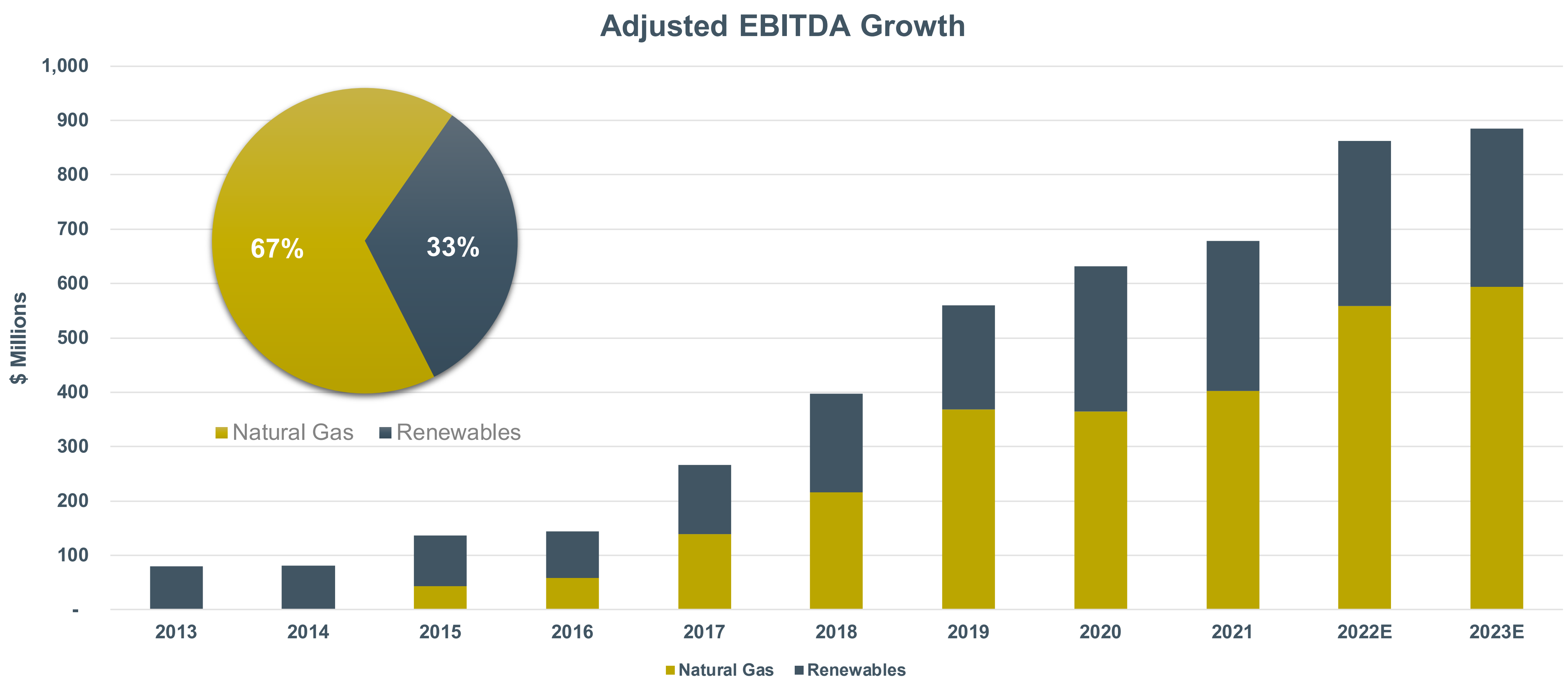
Summary

- Significant progress made on the Genesee Repowering project – on time to meet our off-coal 2023 commitment
- Progress on designing and constructing projects from our robust development pipeline
- Successfully contracting wind and solar assets in Alberta
- $1.3B committed capital projects through 2024

Robust Growth Opportunities

- Successful track record
- Growing renewables pipeline
- Near term opportunities

Sources of Adjusted EBITDA Growth Since 2013



Political Support for Renewable Energy

We’re poised to participate in the massive buildout of renewable generation

Inflation Reduction Act ($250B USD in federal funding for clean energy)

Wind/solar capacity is forecast to grow 2.0 times (200 GW) by 2030 (IEA)

Fall Economic statement ($15B in federal funding for clean energy)

Wind/solar capacity is forecast to grow 1.8 times (16 GW) by 2030 (CER)

Our Growth Pipeline: 4,700 MW and Growing

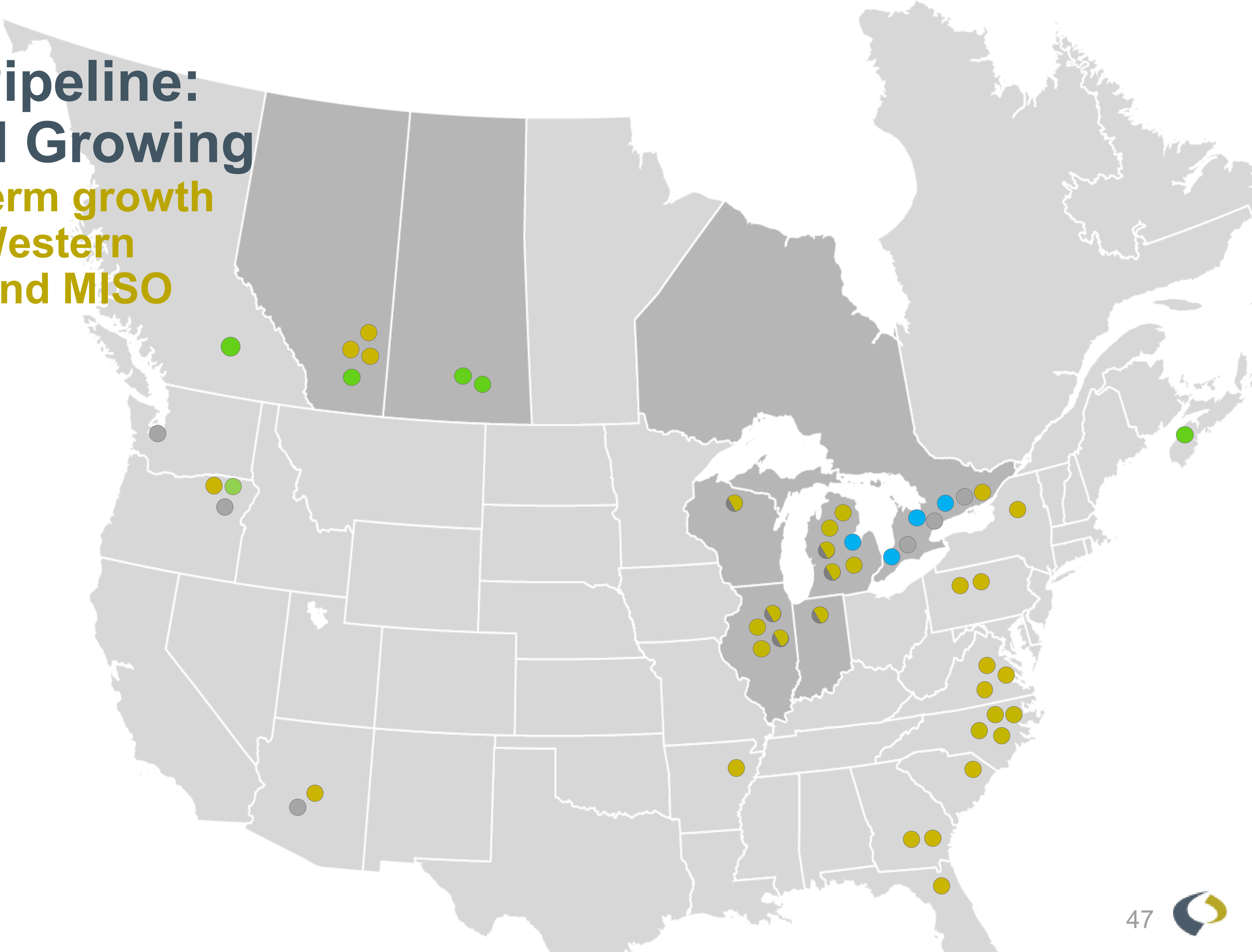
Significant near-term growth opportunities in Western Canada, Ontario and MISO

924 MW
wind

2,486 MW
solar

700 MW
gas

2,300 MWh
battery storage



- Wind
- Solar
- Gas
- Battery Storage
- Solar + Battery Storage

Near-Term Renewables Growth

Canada

Aldersyde Solar 1 & 2	Whitla Solar	Rolling Hills Wind	Greenfell Wind	Peebles Wind
400 MW	88 MW	190 MW	100 MW	200 MW
Alberta			Saskatchewan	

Near-Term Renewables Growth

United States

Nolin Hills	Rail Line	Kepple Creek	East Donica	Greencastle	Ironwood
600 MW	50 MW 100 MWh	100 MW 200 MWh	60 MW 120 MWh	100 MW 200 MWh	340 MW
WECC*	MISO*				FRCC*

*Western Electric Coordinating Council (WECC); Midcontinent Independent System Operator (MISO); Florida Reliability Coordinating Council (FRCC)

IESO* Capacity Procurement

Significant near-term need for supply in Ontario

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

*Independent Electricity System Operator

Ontario Fleet: Brownfield Advantage

100 MW

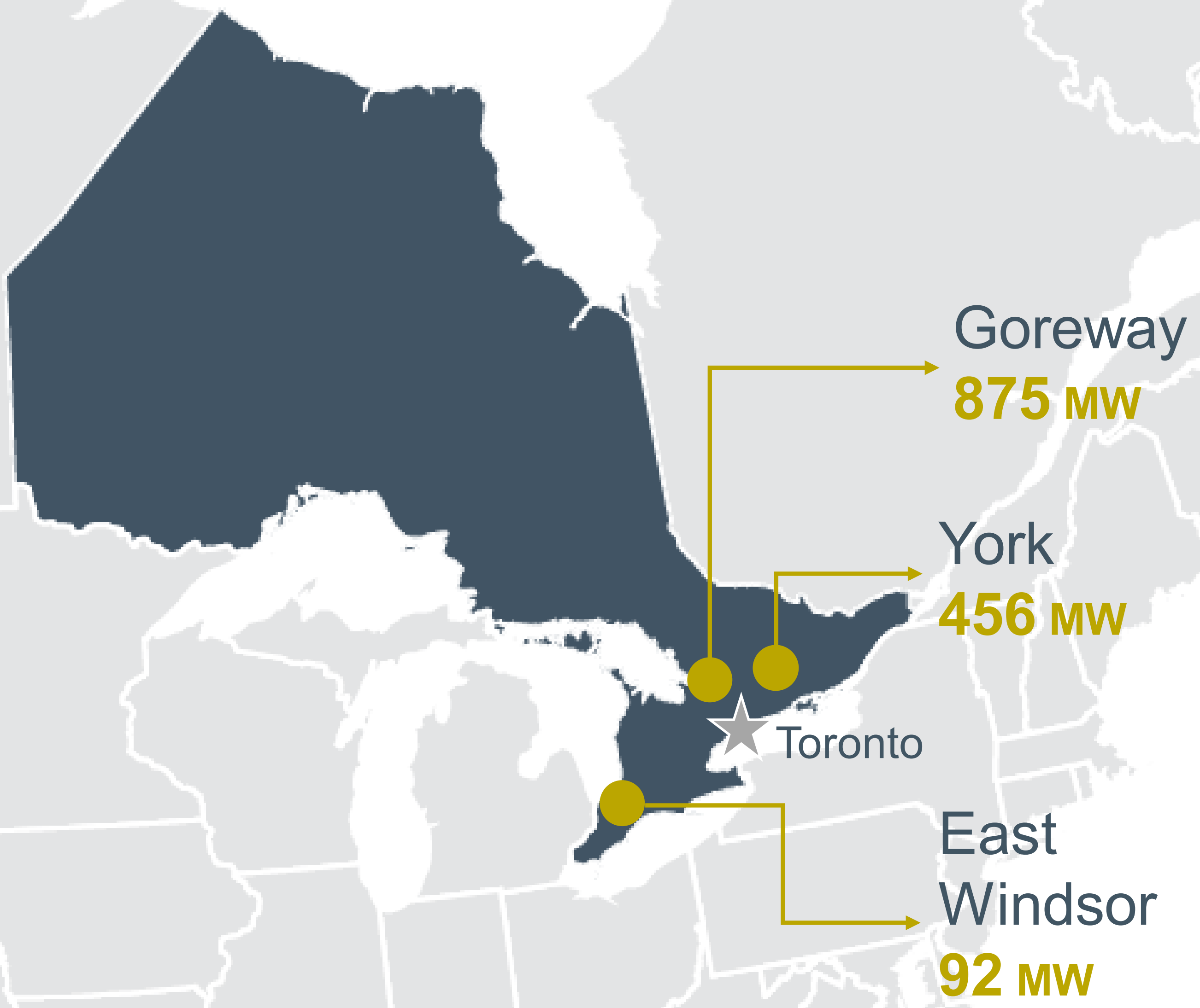
Potential thermal upgrades at existing facilities

300 MW

Gas generation expansion potential

260 MWh

Potential battery storage projects



Midland Cogeneration Venture (MCV)

Strategic growth in MISO

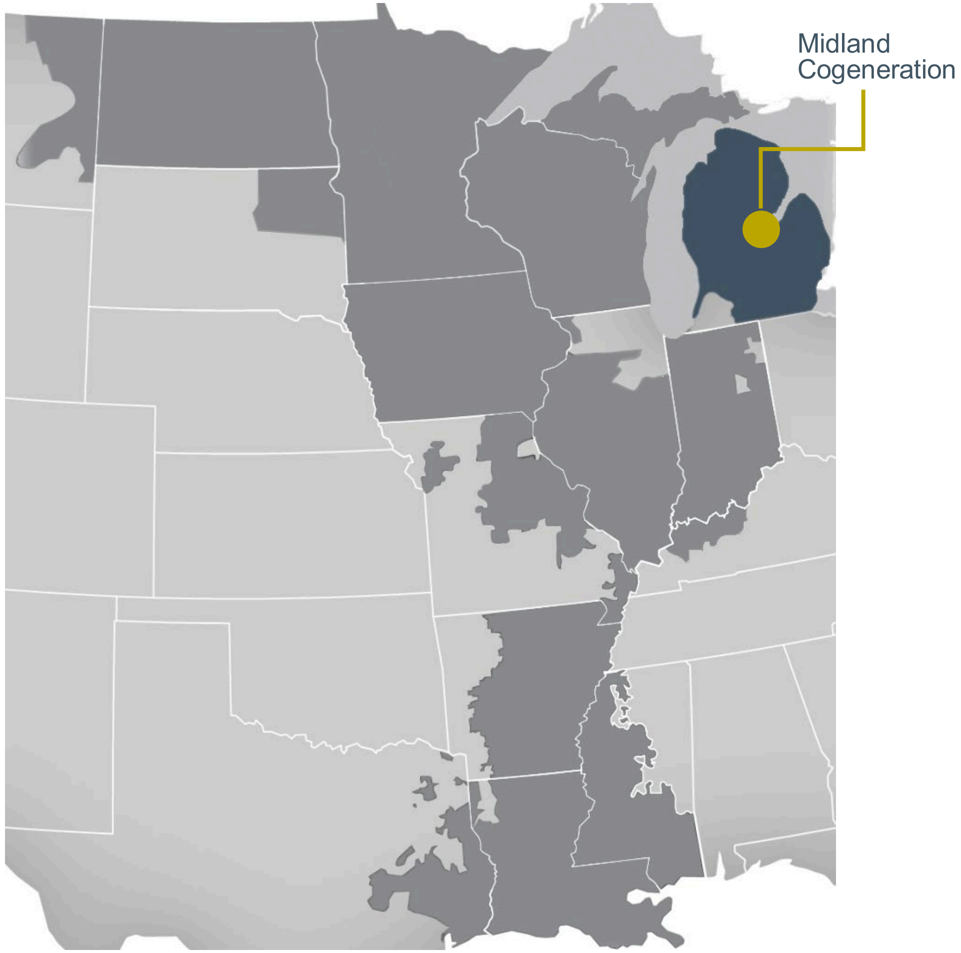
1,633 MW
Nameplate Capacity

99%
PPA Availability

90%
Contracted Gross Margin

Highly Favourable Market Dynamics

MCV’s output will be even more critical in the mid-2020s



~12 GWa (slightly larger than Alberta)

- Population of ~10 million
- Legacy energy production from coal

Shifting generation mix

- 5 GW of baseload retirements over the next 5 years
- Major utilities with net zero goals driving a build out of renewables

Tight reserve margins

- Zone 7 capacity auctions have cleared at the price cap in 2 of the past 3 years

MCV: Very Strong Contracting Relationships

Many avenues for re-contracting and expansion

Investor owned utilities

Municipal utilities & co-ops

Electricity retailers

MISO capacity auction

Zone 7 auction recently cleared at the price cap of $236.66/MW-Day

Well Positioned for Additional Growth in MISO

Solar & Battery

Natural Gas

Development potential

- ~600 MW of solar and battery potential in MISO
- Near-term opportunity via RFPs and C&I offtakes
- COD as early as 2025

Expansion potential

- Up to 500 MW of gas expansion/optimization at MCV
- Projected returns at brownfield site much higher than greenfield
- COD as early as 2026

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 extended through 2026
- Decatur renewed through 2032
- Arlington tolling contract extended through 2031
- Ontario RFP to contract gas through 2040

✓ **MCV: Strong re-contracting dynamics**

Leverage brownfield advantages

- Uprates
- Expansions
- Storage, batteries and other technologies

✓ **MCV: Large strategically located site with expansion potential**

Robust Growth Opportunities

Summary

- Our future is bright
- Two renewables projects in 2023
- Great opportunities in Ontario and MISO
- Continuing natural gas M&A opportunities

Advancing Genesee CCS

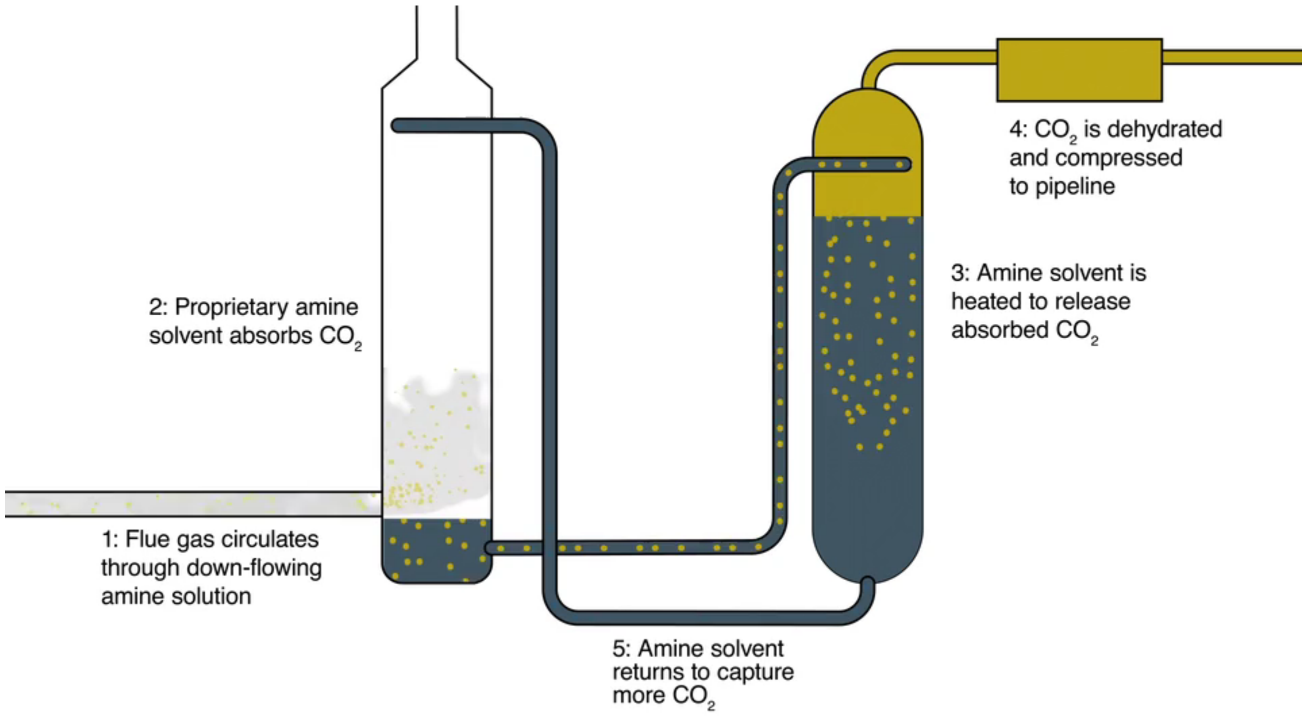
- Genesee 1 & 2 repowered units
- 95% capture rate at full capacity
- 3 million tonnes of CO_2 per year
- FNTP Q3 2023
- Commence operation in 2027

Genesee CCS Progress and Limited Notice to Proceed

	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	

Front-end Engineering and Design (FEED) Study

- Kiewit Engineering Group Inc. and Mitsubishi Heavy Industries Engineering, Ltd.
- Utilizing Mitsubishi's post-combustion CO_2 capture technology
- Revised capital cost of \$2.3B
- Still significant technical issues to confirm viability of the application
- Guarantees expected for capture rate ramping and cost performance
- Petra Nova due diligence



Enbridge Carbon Hub

- Enbridge is developing the **“Open Access Wabamun Carbon Hub”** to support carbon capture projects
- Will be a key part of one of the world’s largest integrated carbon capture, transportation and storage projects
- Genesee CCS project (located ~10 km away) will be anchor tenant for the hub
- Hub approved by Alberta Government
- Agreement on next stage of development
- Enbridge has an agreement with Indigenous communities

Strong Government Support

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

Canada
Department of Finance Canada Ministère des Finances Canada

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

STRATEGIC INNOVATION FUND

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

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

Government of Canada

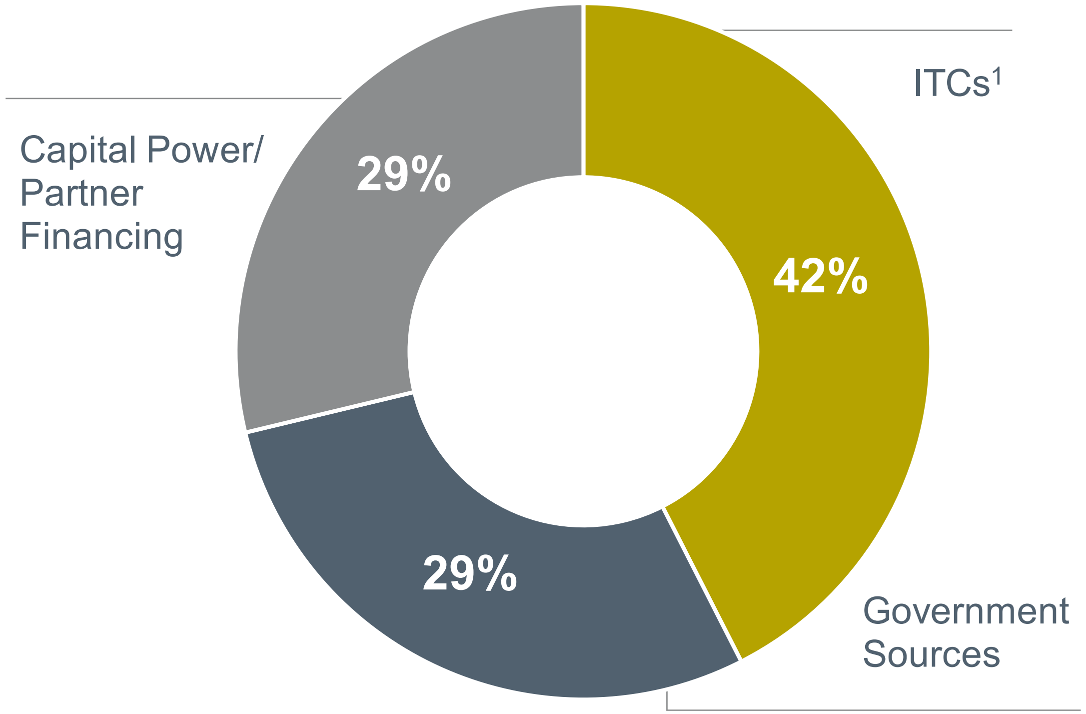
As per the Federal Fall Economic Statement, the Canada Growth Fund will be established and would provide carbon price assurances for CCS projects

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

Advancing Genesee CCS

Summary

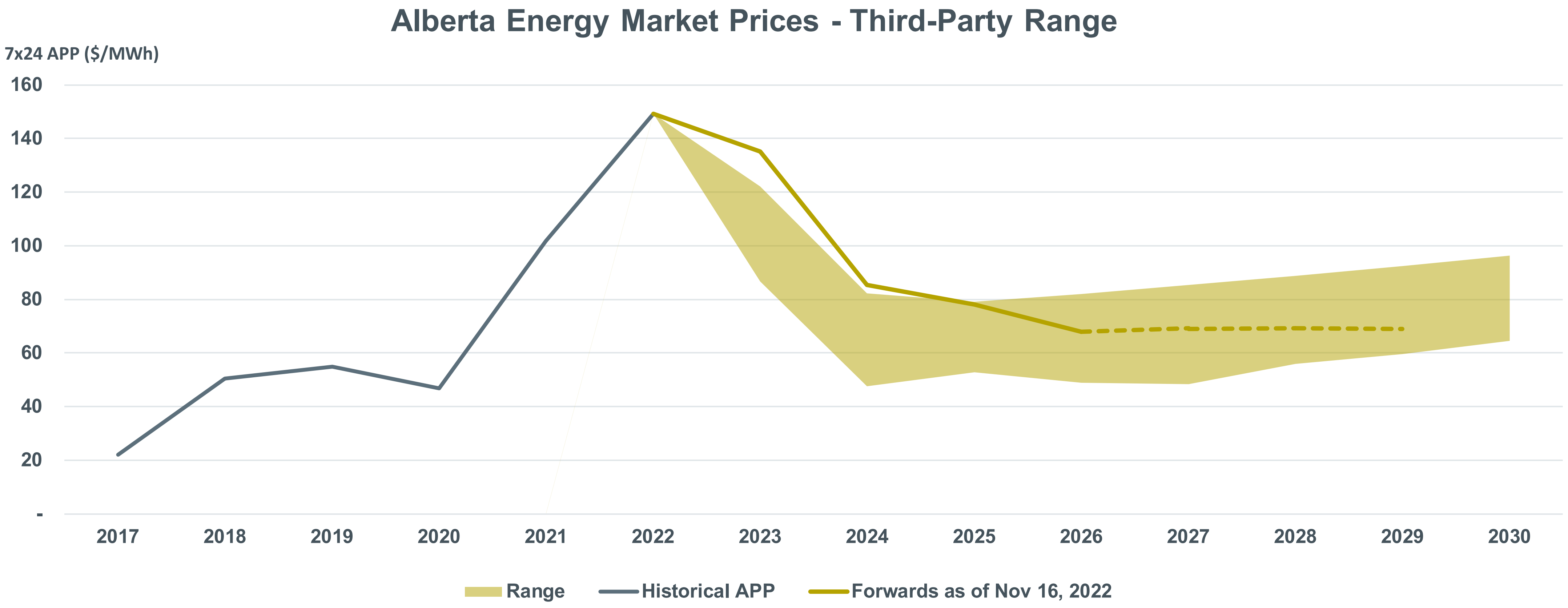
- Limited Notice to Proceed for Genesee CCS
- FEED study underway
- Will connect to the Enbridge Open Access Wabamun Carbon Hub
- Strong government support
- After-tax returns expected to be commensurate with risk

Positive Power Market Dynamics

- Alberta power market seeing unprecedented prices in 2022 and 2023
- Supply under construction adds ~6,800 MW over the next few years, including renewables and thermal
- Demand expected to increase modestly year-over-year
- Prices to moderate as new supply displaces less efficient units
- Well positioned in the market over the long term

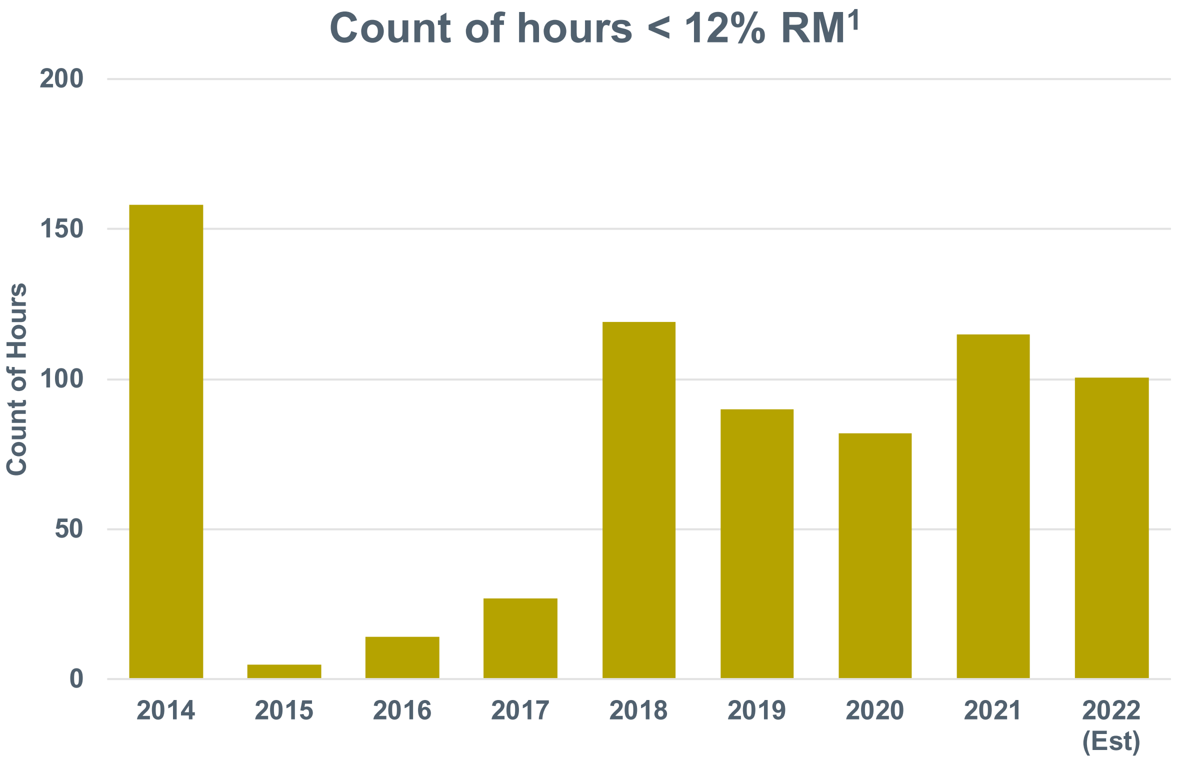
Alberta Power Pricing

Market progresses through supply-demand balance cycle



Alberta Power Market

Market tightness building

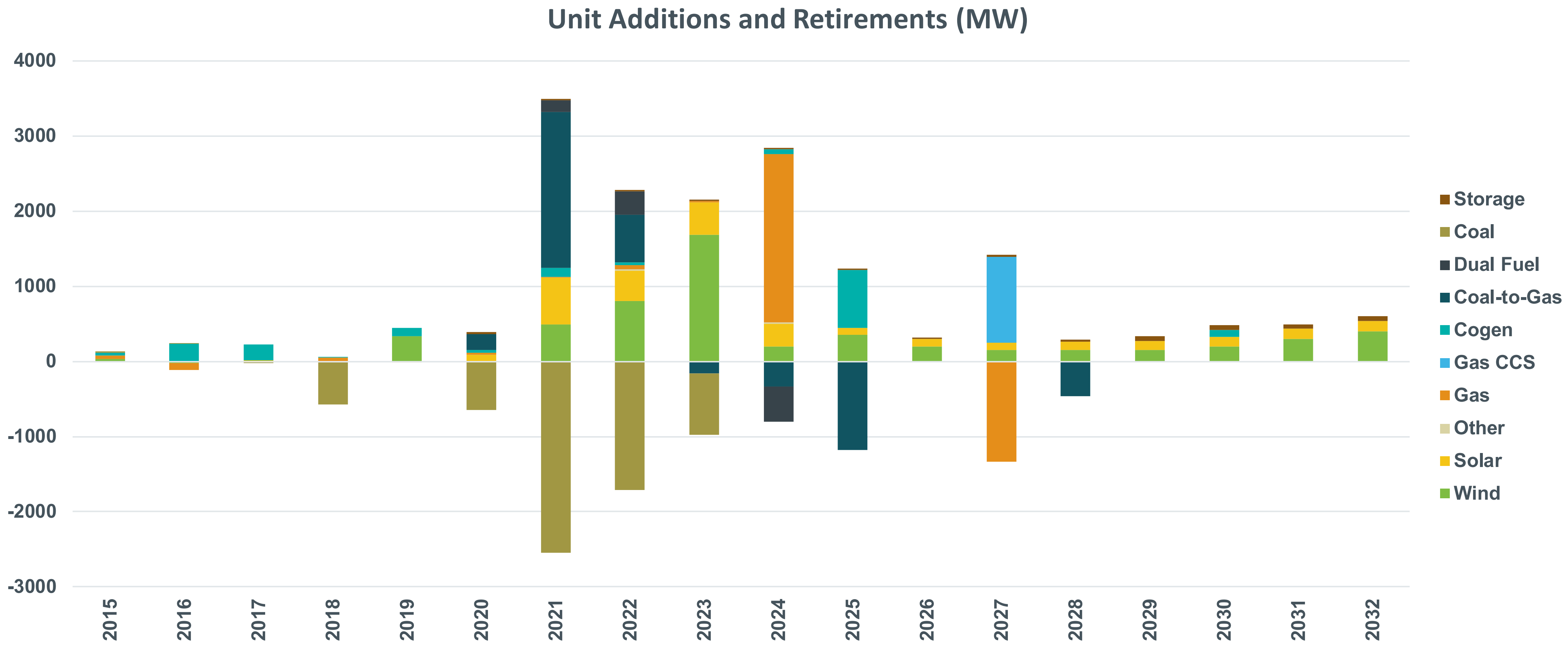


- 2014 saw a large number of tight reserve margin hours prior to Shepard coming online
- Current reserve margin has moved up but remains lower than 2014
- Other market factors beyond reserve margin driving up prices in 2022

Source: Estimated from AESO hourly historical data

1) Reserve Margin (RM): The amount of unused/undispatched available capacity (accounting for tielines and asset types with limited storage) as a % of total system demand

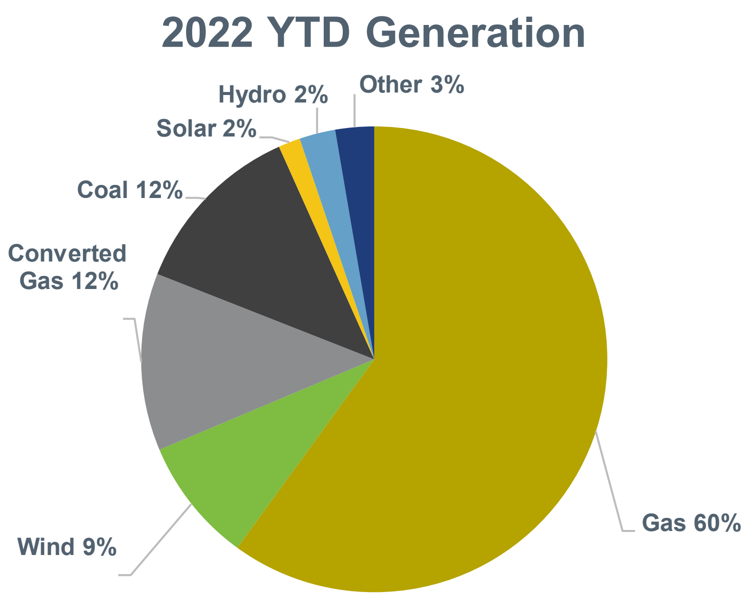
Alberta Power Market
A market in transition

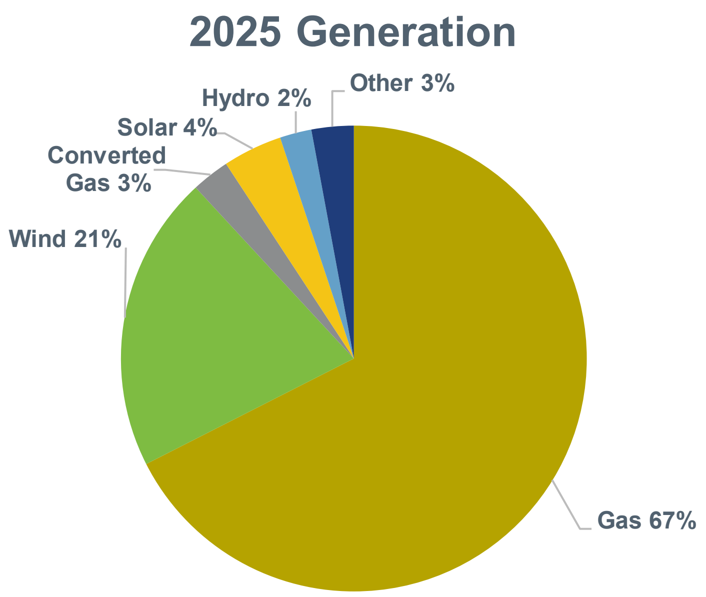


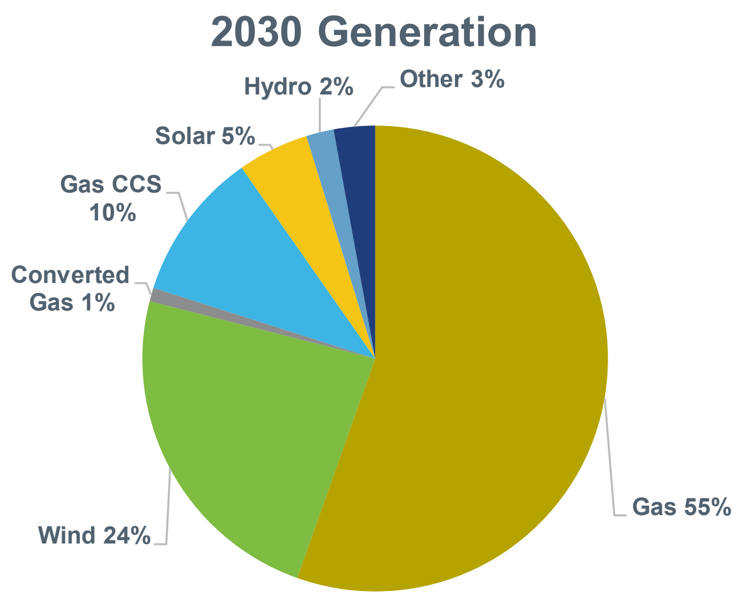
Source: AESO

Alberta Power Market

Gas provides the majority of electricity output

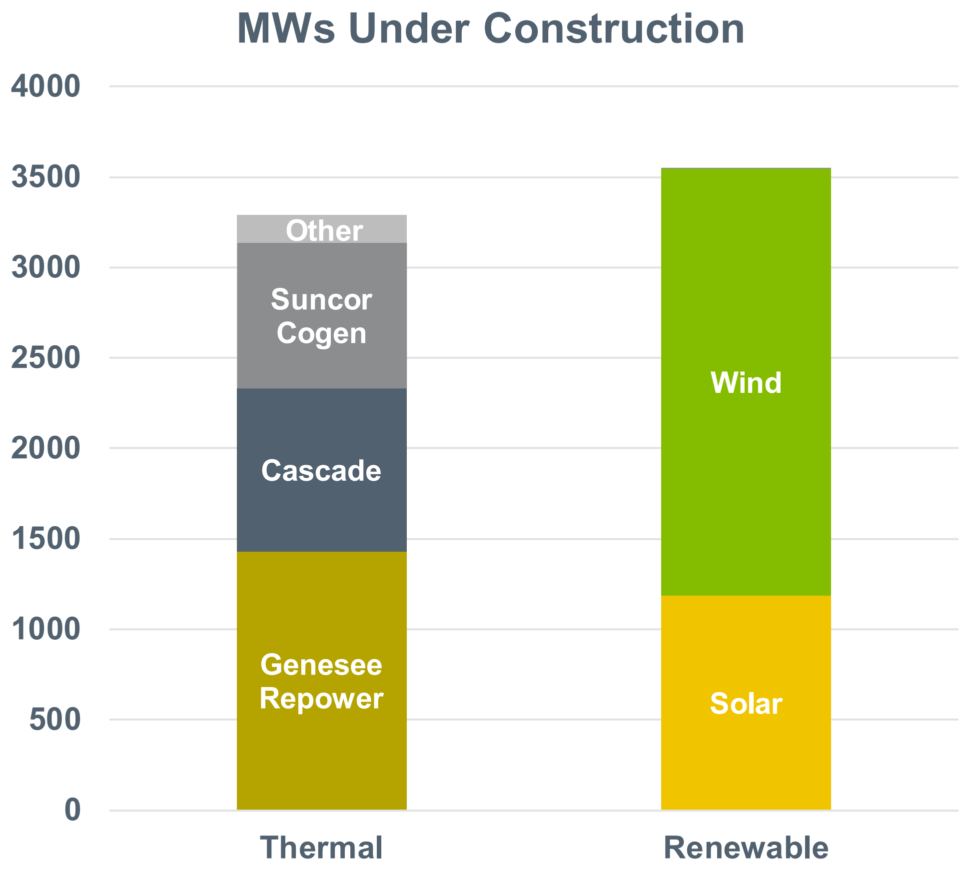






Alberta Power Market

Large volume of new capacity under construction

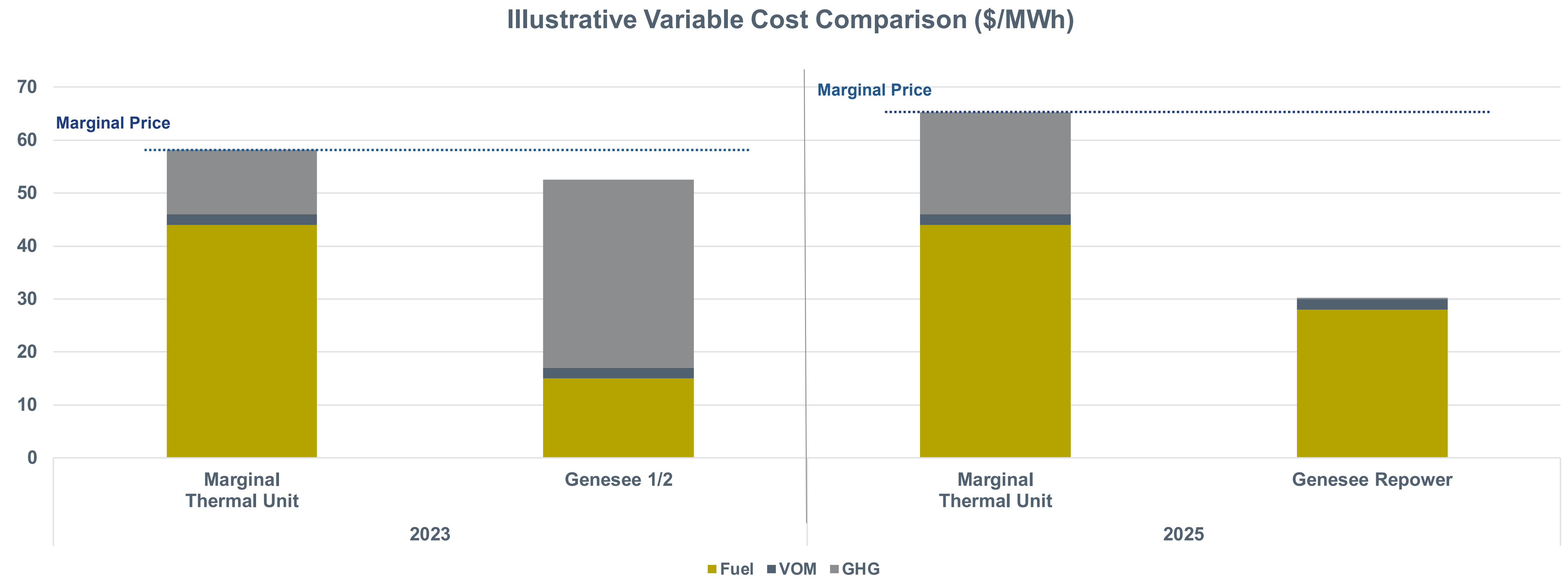


Source: AESO Nov Long Term Adequacy Report

- 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

Genesee Repowering

Significantly reducing carbon emissions and increasing competitiveness



Positive Power Market Dynamics

Summary

- High power prices carrying forward into 2023
- New renewables and efficient gas supply will displace less efficient thermal units and bring prices down to more normal levels
- Extremely well positioned to continue as the market leader with the most efficient and diverse fleet, coupled with prudent hedging

Stable Financial Strategy

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

Overview of 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

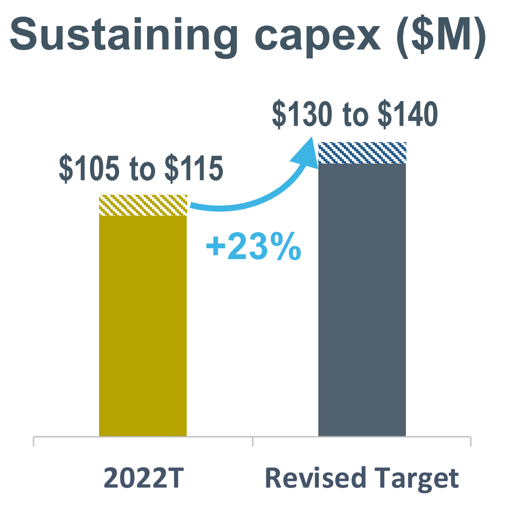
- Credit metrics exceed rating agency targets for current ratings

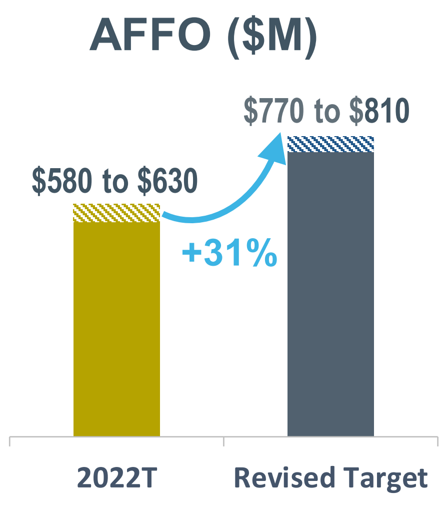
Deliver annual dividend growth

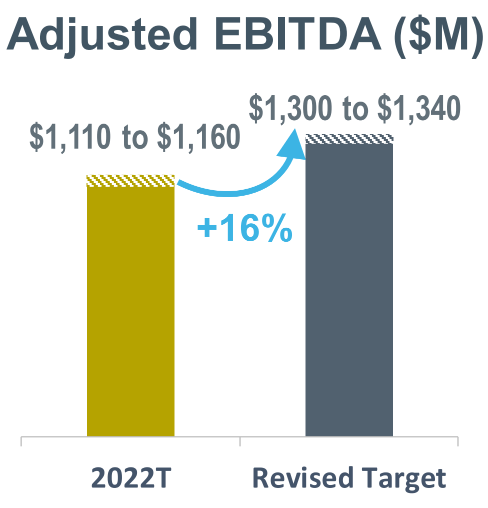
- 6% annual dividend growth to 2025
- Payout ratio below target of 45-55%

2022 Targets – AFFO 31% Above Original Guidance

Reaffirming 2022 revised financial guidance

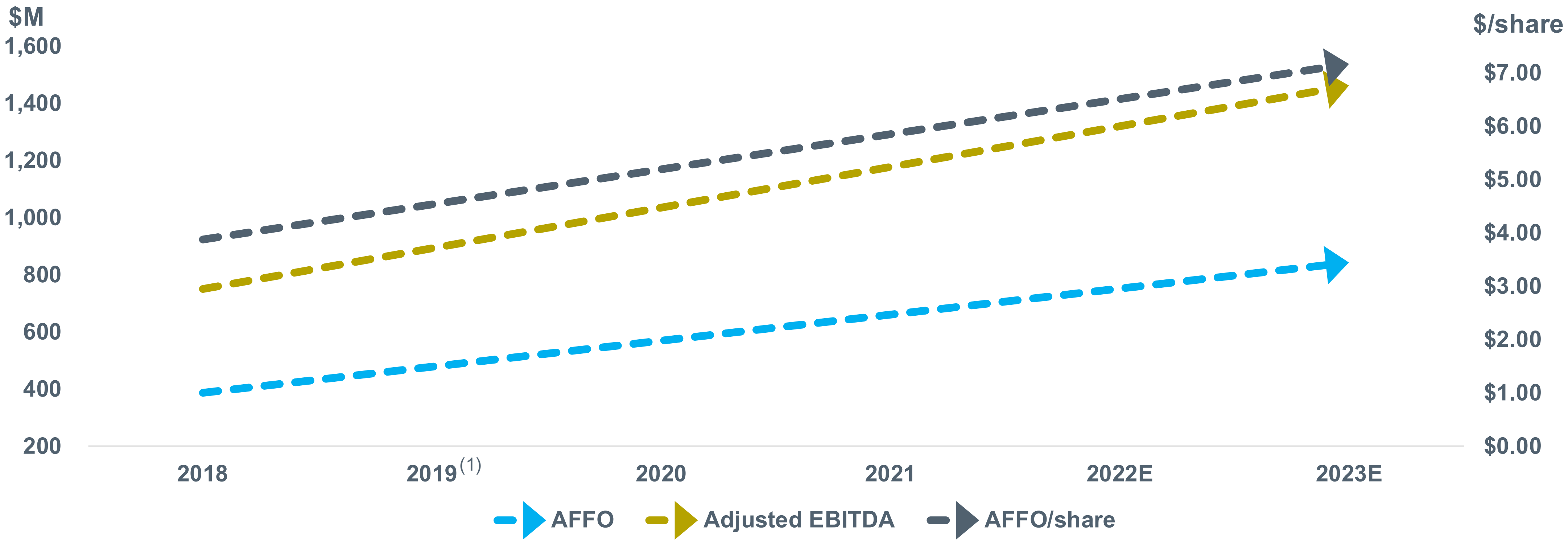






5-year Growth in Key Financial Metrics

~16% CAGR in AFFO from 2018 to 2023

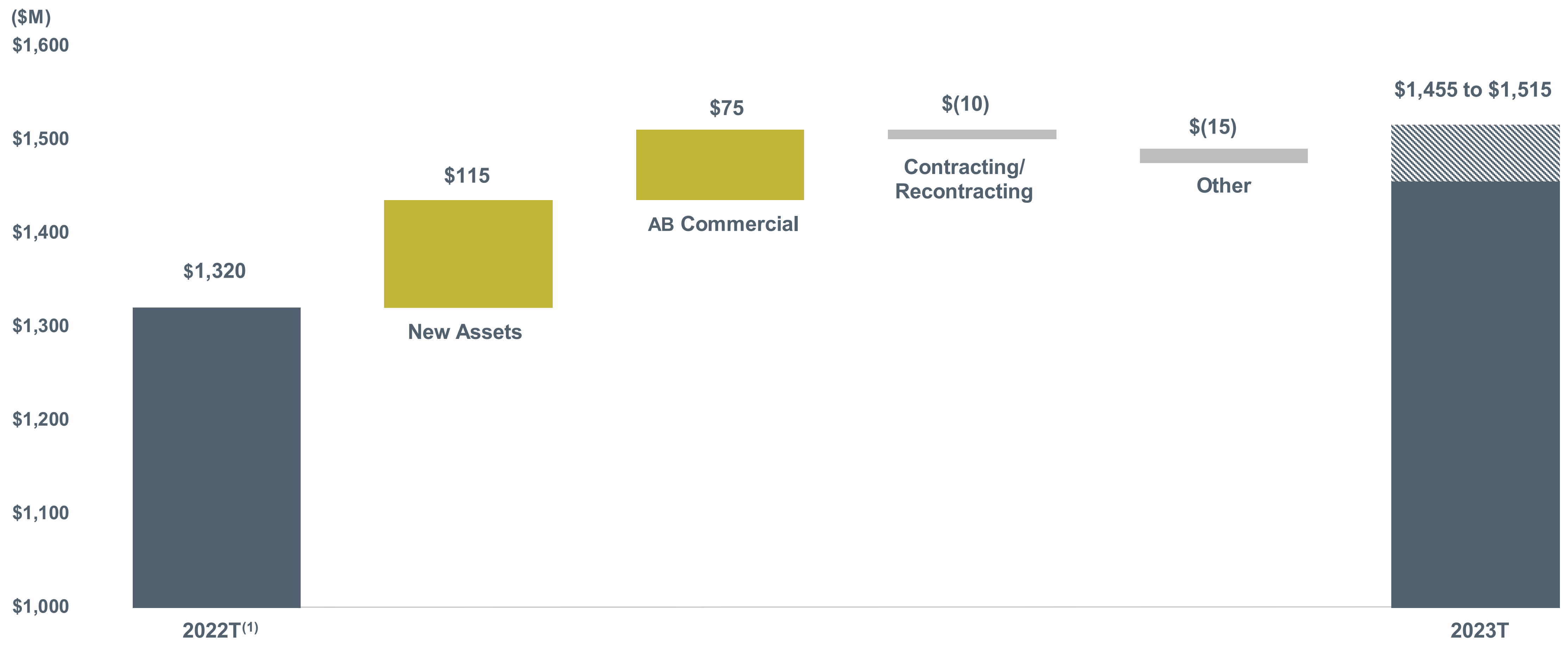


5-year growth delivered from achieving average growth capex of $685M[2] per annum

1) Normalized for non-recurring 2019 Arlington toll
2) Includes gross capex on Tax Equity Investor projects

2023 Adjusted EBITDA Compared to 2022 Guidance

13% year-over-year increase in adjusted EBITDA



1) 2022T represents the midpoint of the revised guidance range of $1,300M - $1,340M

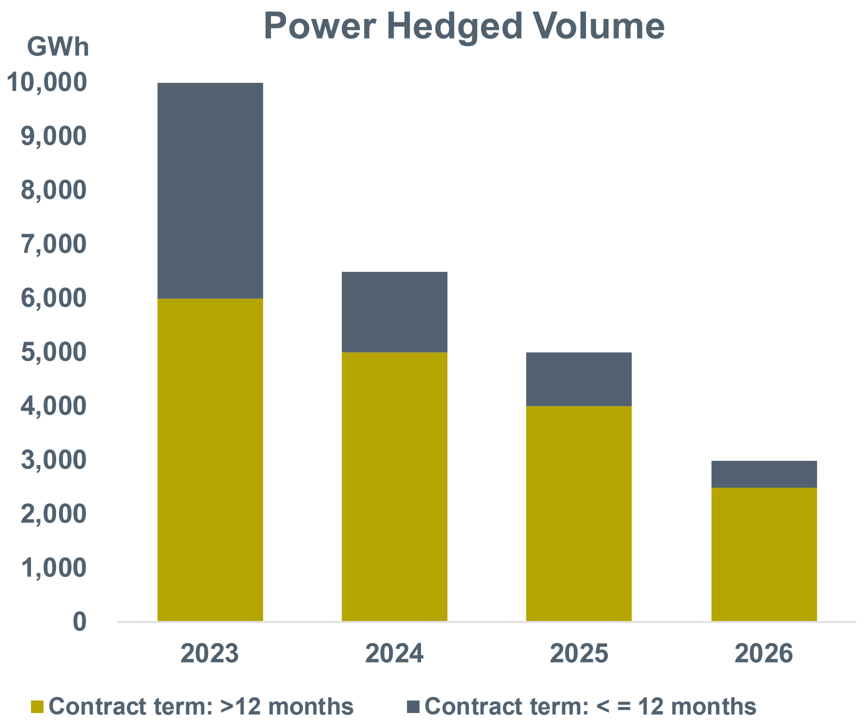
2023 AFFO Compared to 2022 Guidance

Year-over-year increase mostly offset by 2022 tax expense paid in 2023

1) 2022T represents midpoint of the revised guidance range of $770M to $810M

Alberta Commercial Portfolio

Reducing volatility and risk with multi-year hedges



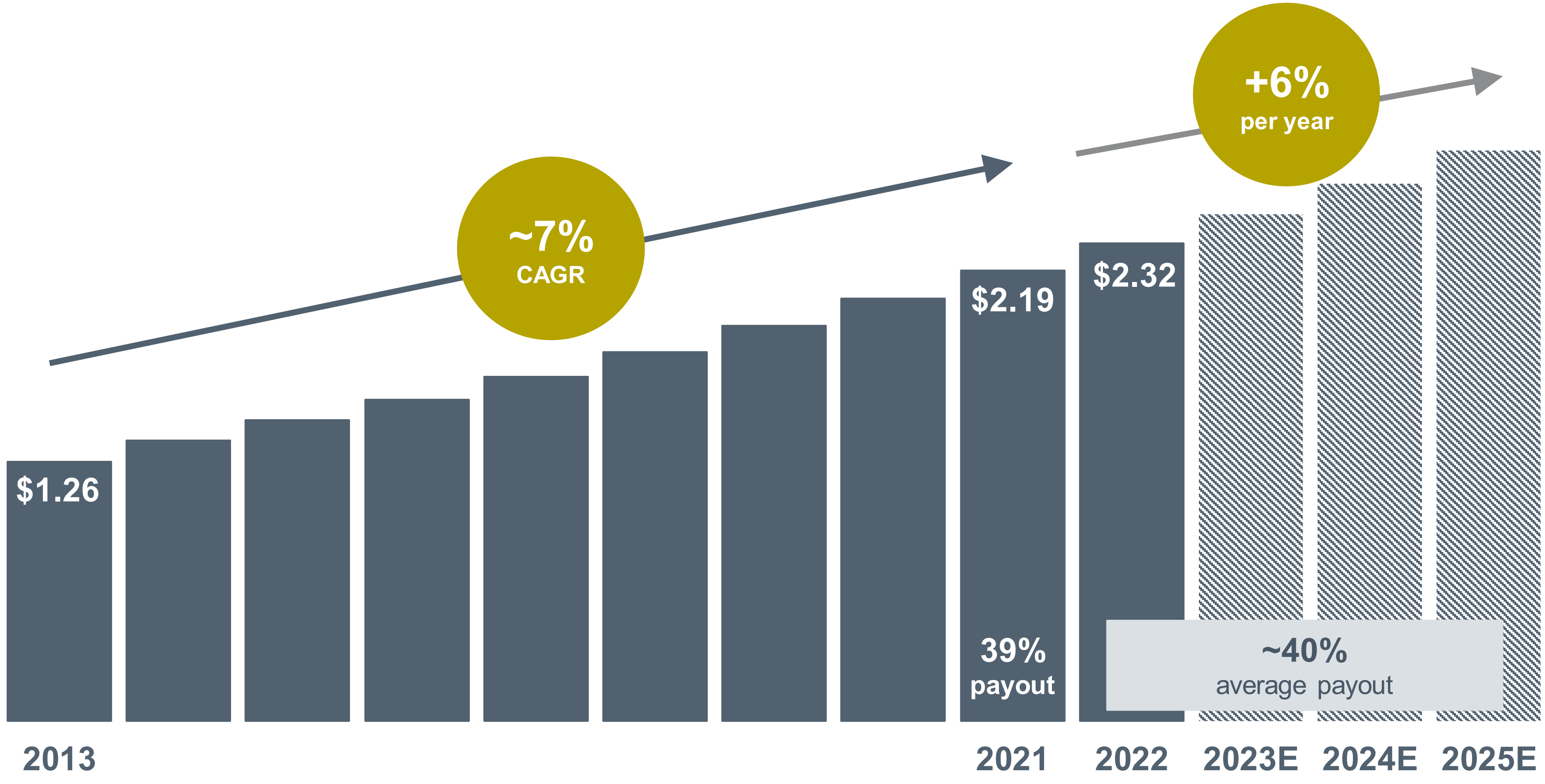
Weighted average hedged price with terms >12 months: Mid-$60s/MWh

(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

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

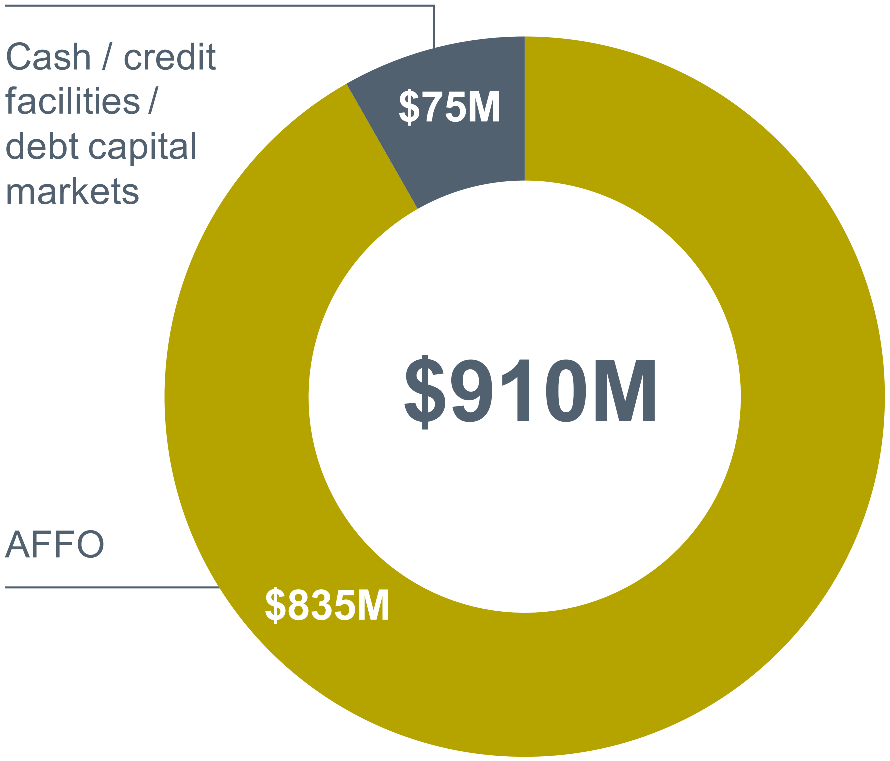


Forecast to be below AFFO payout ratio target range of 45% to 55% through 2025

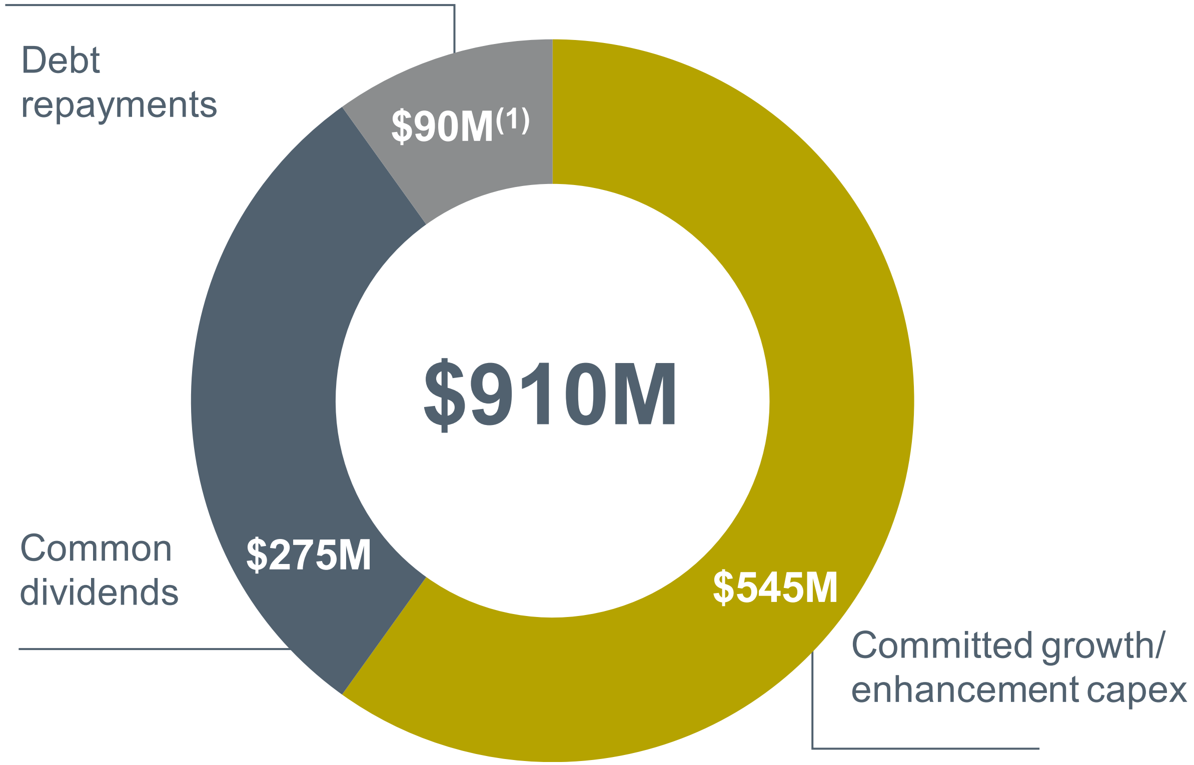
1) Subject to market conditions, economic outlook, cash flow forecast, and Board approval at the time
2) 2013 to 2021 annualized dividend based on year-end quarterly common shares dividend declared

Cash Flow and Financing Outlook

AFFO funds dividend and committed growth capex in 2023



Expected Sources

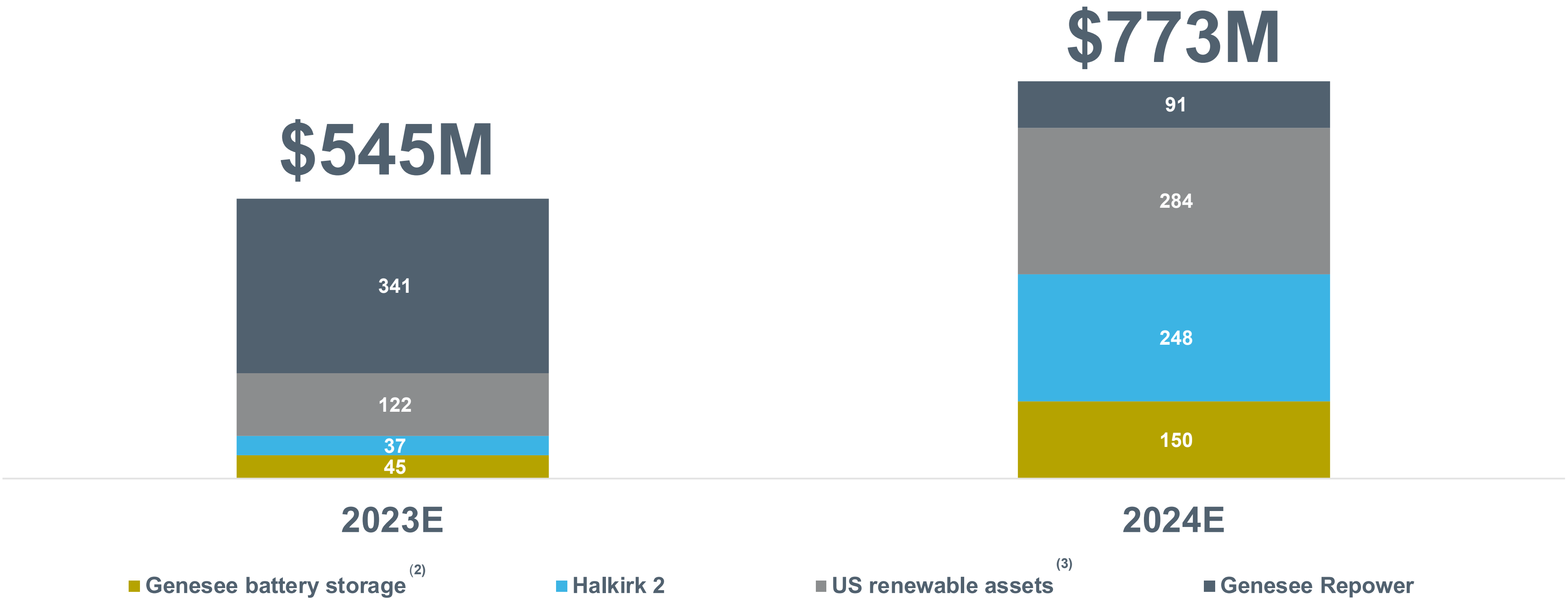


Expected Uses

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

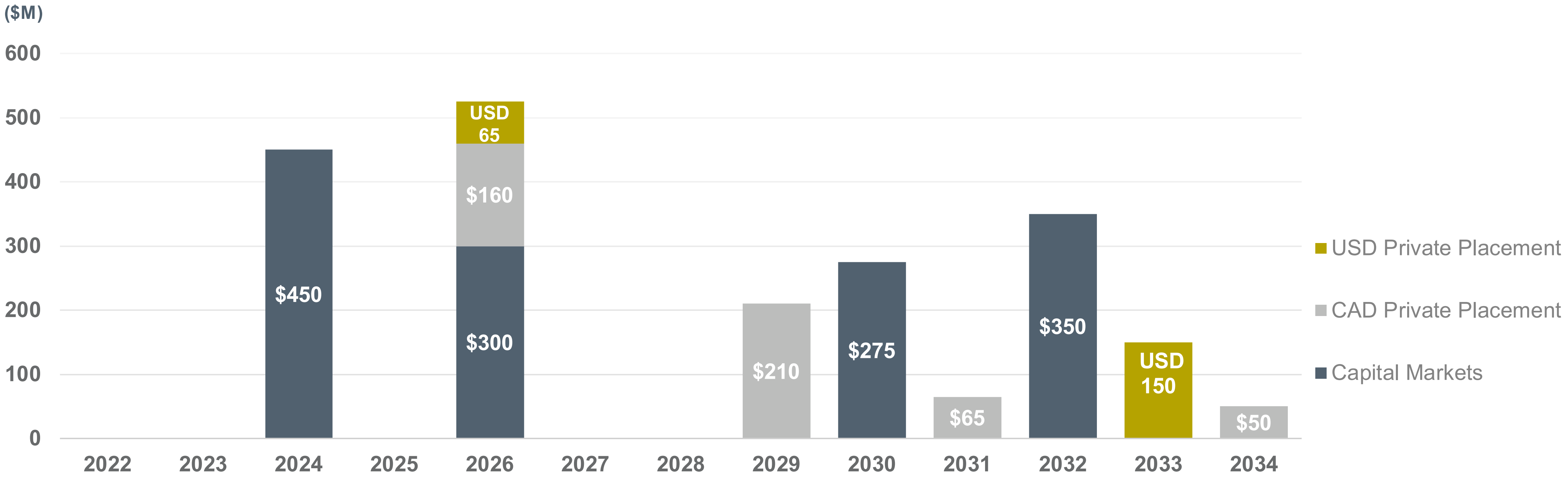


1) Remaining spending on committed capital projects
2) Genesee battery storage of 210 MWs
3) US renewable assets excludes Tax Equity contributions

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
- Underlying on refinancings in 2024 – 2026 hedged well below current rates
- 2023 forecast credit metrics well above current ratings threshold



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

Stable Financial Strategy

Summary

- Strong and resilient cashflow
- Increase to 2022 guidance reaffirmed
- 2023 adjusted EBITDA up 13% driven by asset additions
- AFFO up 6% from midpoint of 2022 revised guidance
- Internally generated cash flow will fund current growth capex – well positioned to achieve $600M growth target
- 6% annual dividend guidance maintained to 2025

Value Proposition

- A responsible, sustainability-focused and attractive investment

Powering a Sustainable Future for People and Planet

Resiliency

- Delivering on our disciplined, resilient strategy year-over-year to reliably and sustainably power our communities and create value for all our stakeholders

Optimization

- We optimize our operations to deliver best-in-class service to our customers and create competitive advantages alongside lasting value for our stakeholders

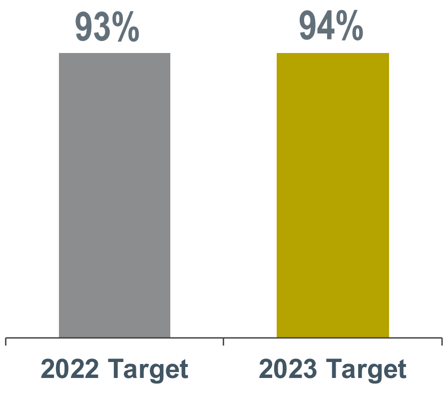
Innovation

- Researching and investing in critical technologies that will enhance the efficiency of our operations and enable net zero, including CCUS, batteries and hydrogen

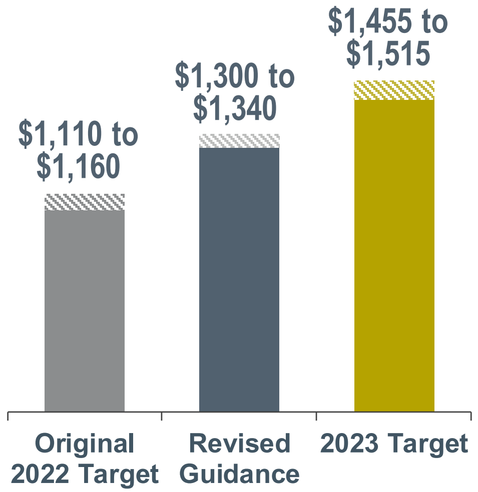
2023 Operational and Financial Targets

Sustaining capex ($M)

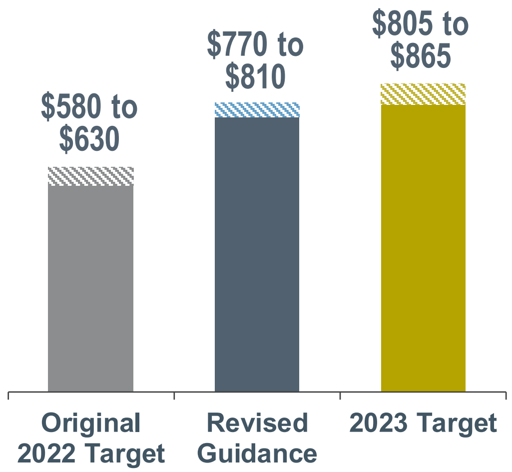
Facility availability



Adjusted EBITDA ($M)



AFFO ($M)



2023 Growth Targets

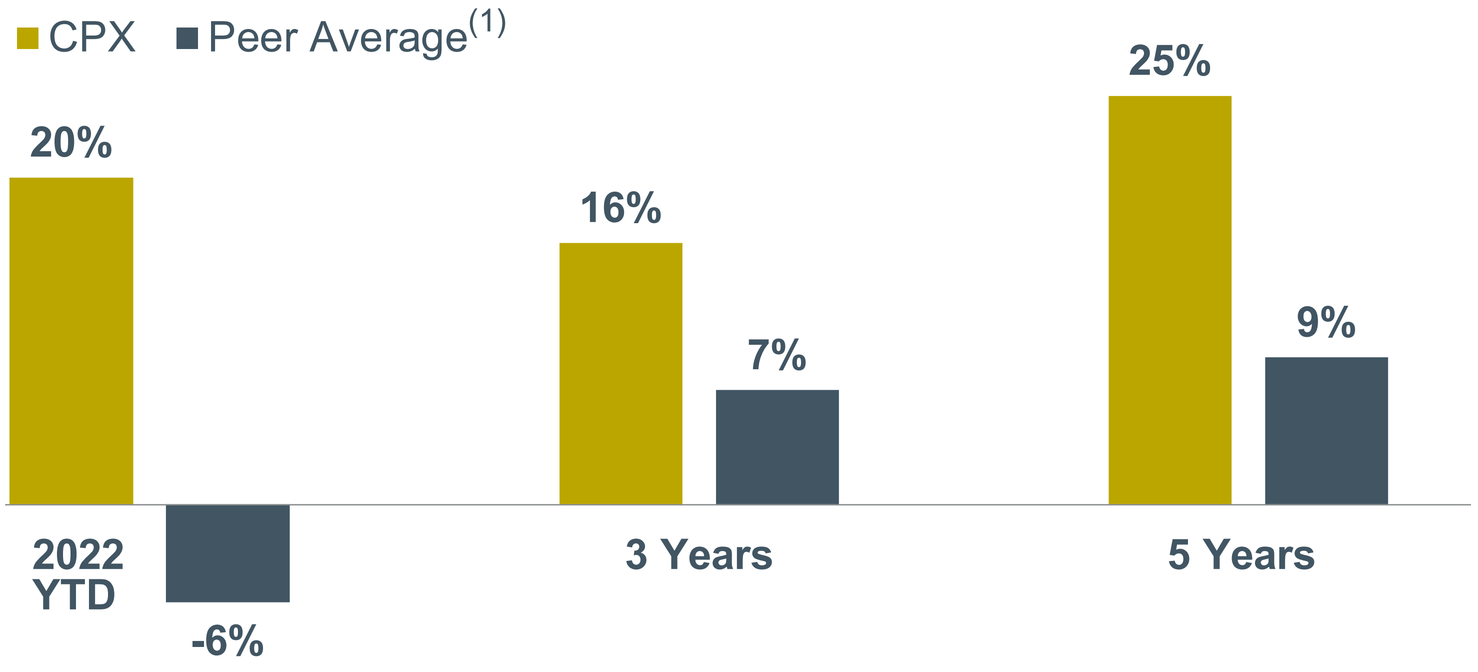
- Progress on Genesee 1 and 2 repowering project – revised schedule and budget
- Advancement of Genesee CCS project and Genesee Carbon Conversion Centre
- Continued progress on Halkirk 2 Wind on time and on budget
- Investment decision on two renewable projects
- $600M Target $600M committed capital for growth

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

Delivering Value to Shareholders

Average annual total shareholder returns (TSR)



Delivering average annual TSR of 14% since inception in 2009

1) Peer group consists of: Algonquin Power, AltaGas, Boralex, Brookfield Renewable, Canadian Utilities, Emera, Fortis, Hydro One, Innergex, Northland Power, TransAlta Corporation

Attractive Investment Opportunity

Resilient strategy drives growth and accelerates net zero by 2045

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

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.

Investor Relations

Randy Mah
Director, Investor Relations
(780) 392-5305
rmah@capitalpower.com

10423 101 Street NW
11th Floor
Edmonton, Alberta
Canada T5H 0E9

capitalpower.com