



Reliable • Affordable • Clean

# Investor Day

2024 | Edmonton, Alberta



# Territorial Acknowledgement

In the spirit of reconciliation, Capital Power respectfully acknowledges that we operate within the ancestral homelands, traditional and treaty territories of the Indigenous Peoples of Turtle Island, or North America.

Capital Power's head office is located within the traditional and contemporary home of many Indigenous Peoples of the Treaty 6 Territory and Métis Nation of Alberta Region 4. We acknowledge the diverse Indigenous communities that are located in these areas and whose presence continues to enrich the community.



Learn more about Indigenous Relations at Capital Power.



# Presentation Team



**Avik Dey**

President and Chief  
Executive Officer



**Bryan DeNeve**

SVP, Chief  
Commercial Officer



**Steve Wollin**

SVP, Operations



**Jason Comandante**

SVP, Head of Canada



**Sandra Haskins**

SVP, Finance and  
Chief Financial  
Officer



# Agenda

1

**A Leading North American Power Producer** | Avik Dey

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2

**Deliver**

- **Acquire and Optimize** | Bryan DeNeve
  - **Operational Excellence** | Steve Wollin
- 

3

**Build – Positioned to Grow** | Jason Comandante

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4

**Create – Balanced Energy Solutions** | Jason Comandante

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5

**A Proven Approach to Funding Growth** | Sandra Haskins

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6

**Why CPX?** | Avik Dey

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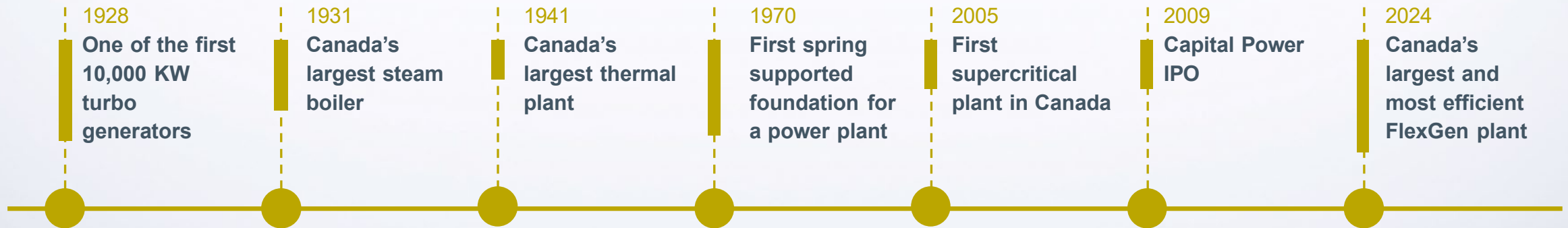
# We are a leading North American power producer

**Capital  
Power** 

Powering Change  
by Changing Power™

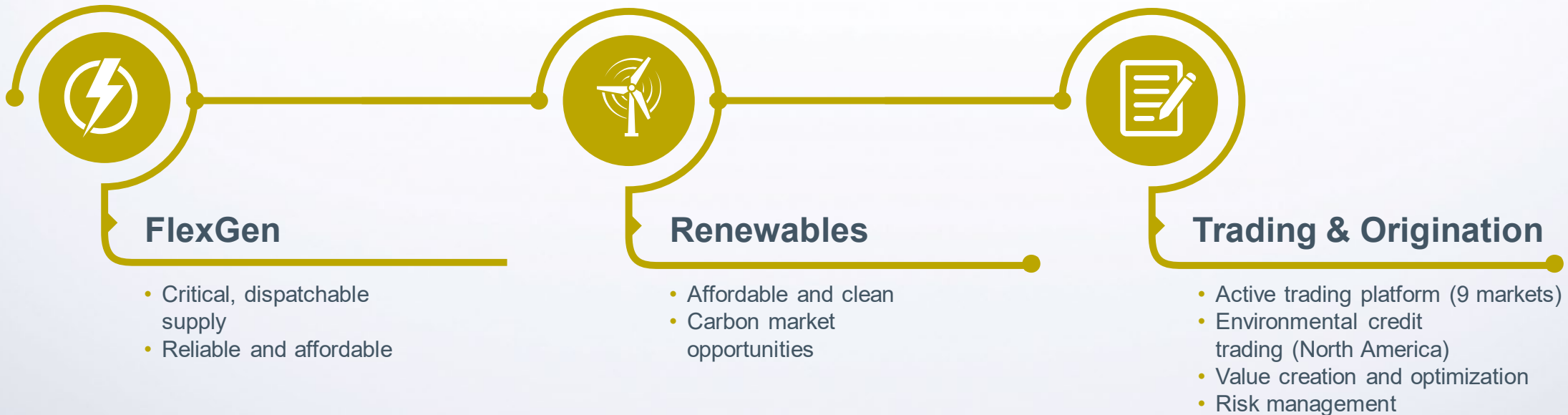


# We are built from a history of power generation **expertise and innovation**



**We are uniquely positioned to excel in the North American power industry – today and tomorrow**

# Our core businesses position us to deliver, build and create **balanced energy solutions**

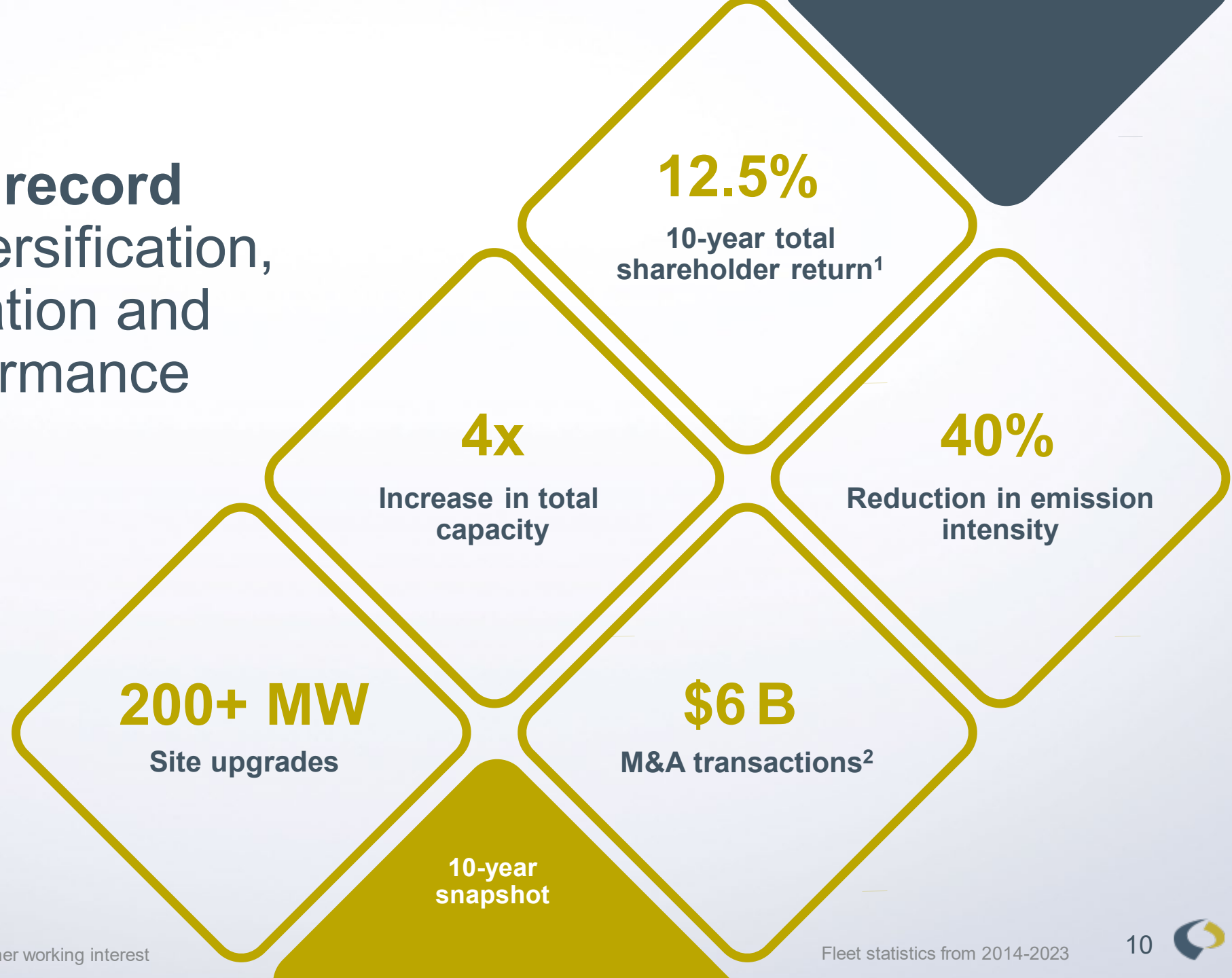




# Our strategic priorities build on our existing capabilities

- 1 Expand our FlexGen fleet
- 2 Grow our renewables portfolio
- 3 Enhance returns through trading
- 4 Create balanced energy solutions

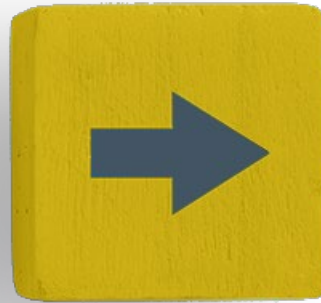
# Proven track record of growth, diversification, asset optimization and financial performance



1. As of December 31, 2023

2. Denotes full transaction value inclusive of partner working interest





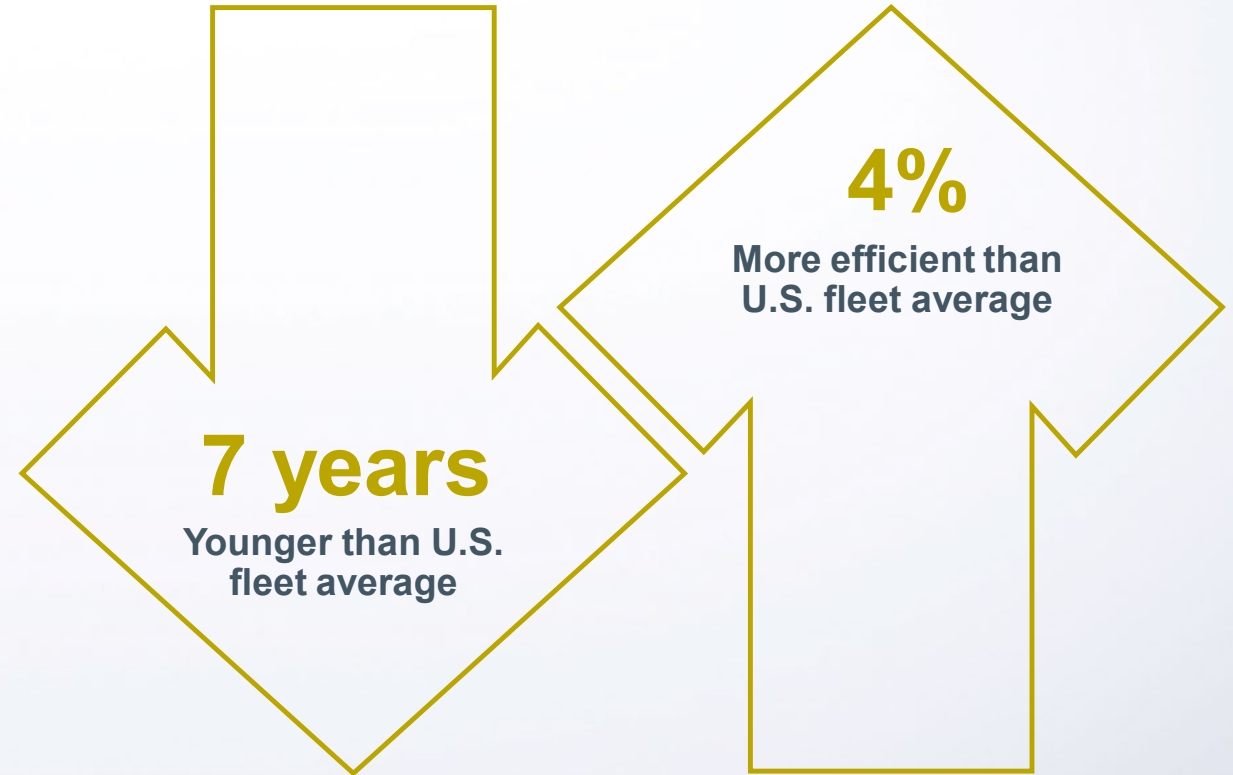
We are **unique** in our capabilities to create **value** for shareholders within the power sector



# Clear competitive advantage



**Superior fleet:**  
Our FlexGen fleet is **well positioned** to deliver reliable, efficient and affordable power across North America



**Access to capital:**  
Investment grade,  
access to partners,  
capital markets  
and financing

**~\$4.0 B<sup>1</sup>**  
Debt financing

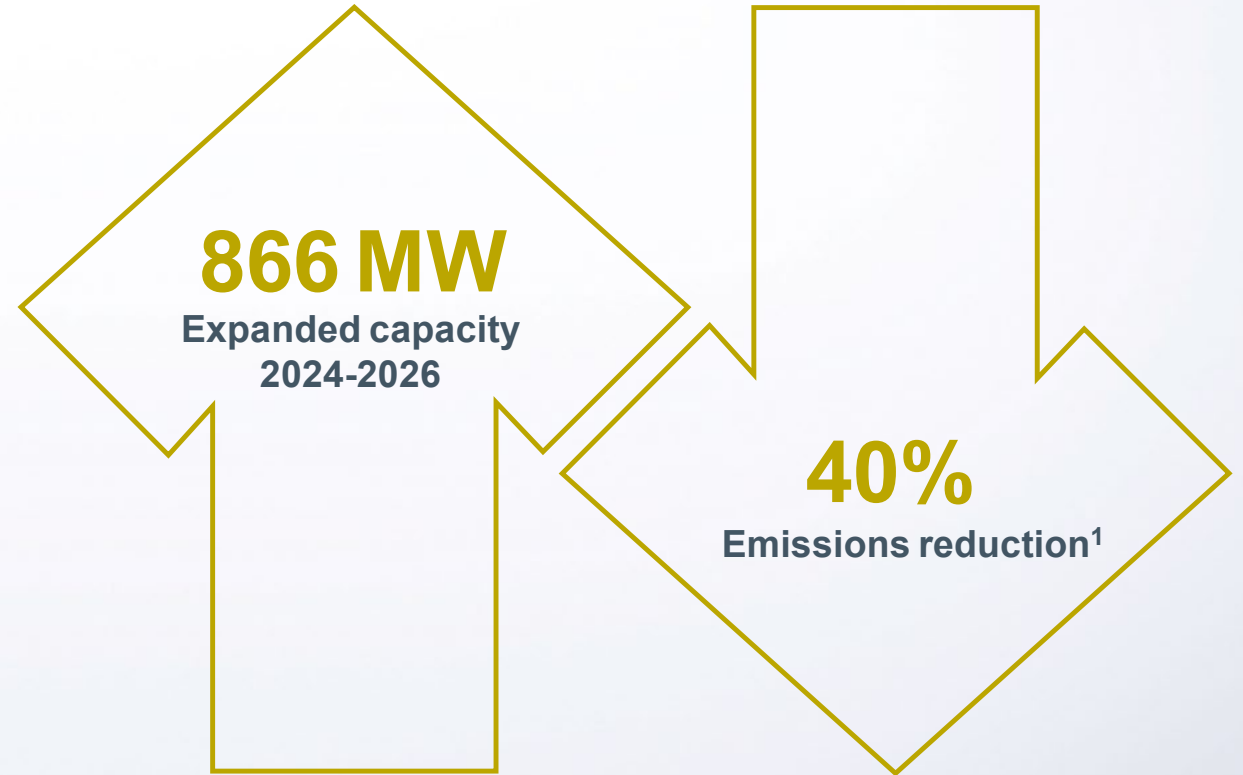
**~\$1.1 B<sup>2</sup>**  
Partner capital

1. Includes project debt financing on announced projects between 2014-2023  
2. Represents partner share of acquisitions or jointly owned projects completed in the last 10 years (2014-2023)

**Operational excellence:**  
Execute high standards  
for asset planning,  
performance and safety



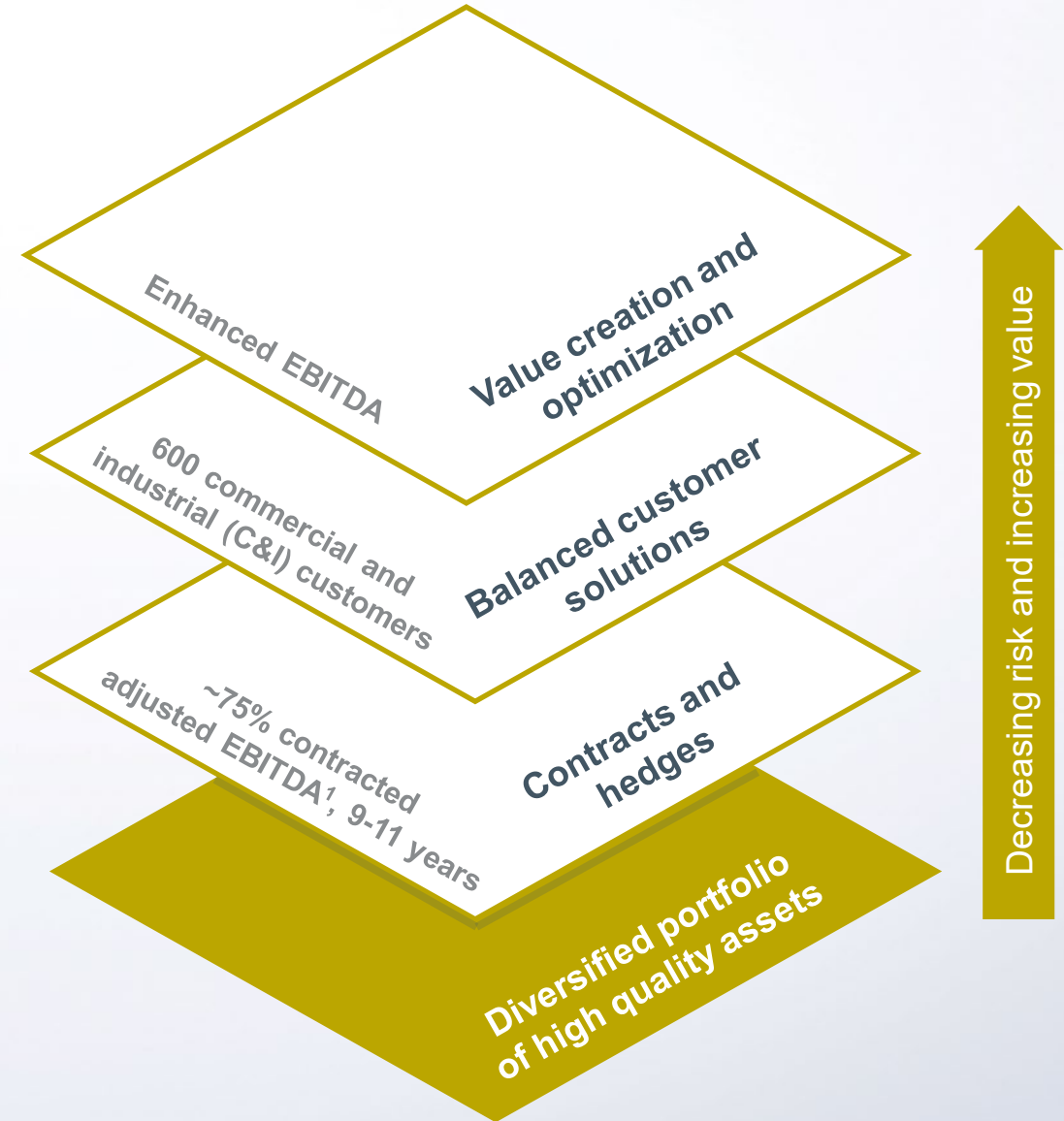
## Asset optimization: Expanding fleet capacity, and reducing our carbon intensity

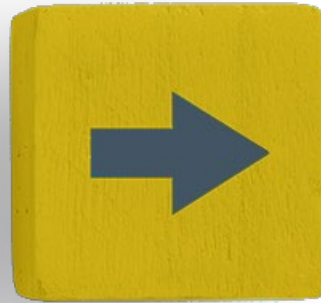


1. Over the 10-year period from 2014-2023



# Deep commercial expertise: Value creation through financial management and commercial optimization





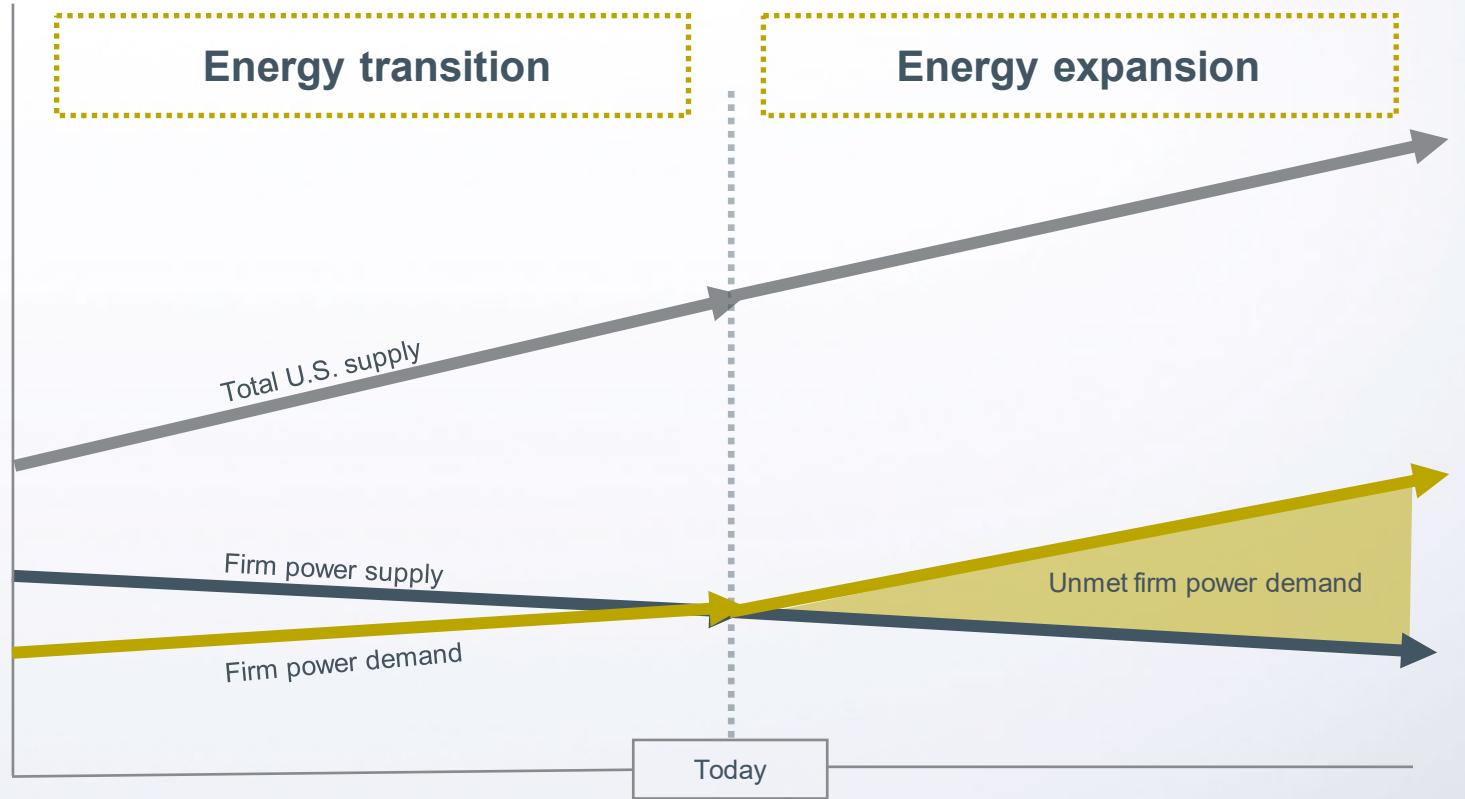
Long-term electricity demand growth is driving **increased need for FlexGen**



# The energy expansion is changing the power industry

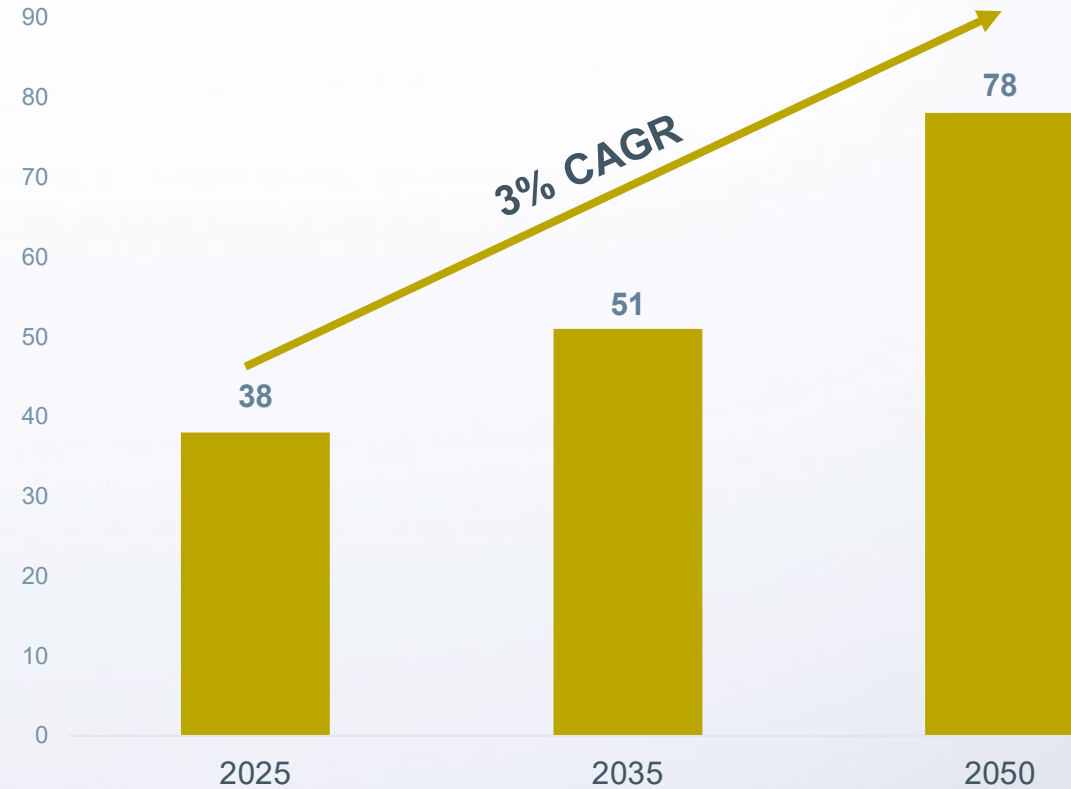


A focus on renewables growth has created a need for **firm supply expansion**



# North American power demand will double by 2050

Annual energy consumption from electricity in North America (QBTU<sup>1</sup>)



1. Quadrillion British Thermal Units

Source: EIA, BCG Analysis

## Secular demand growth driven by **multiple forces**

- Data centres
- EV mandates
- Electrification
- Reshoring
- Economic growth

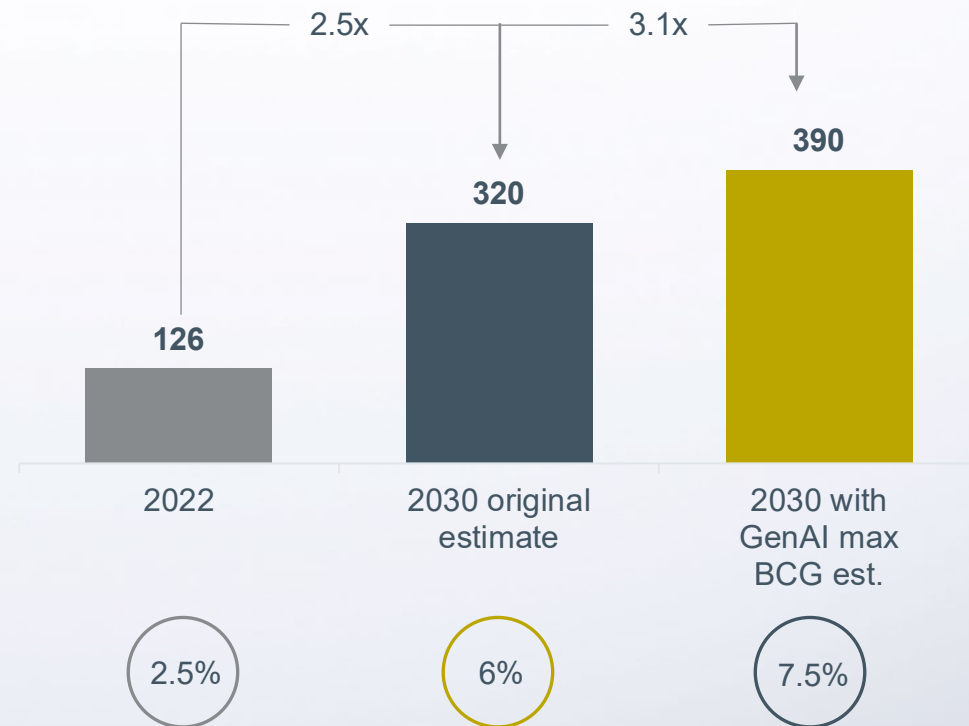


**Generative AI is accelerating data center power demand growth in the U.S.**

## From 2.5% to 6-7.5%

Data centre share of U.S. electricity consumption

Data centre electricity consumption in the U.S., TWh (2022-30)



**Data centres**  
need firm  
supply and  
will challenge  
the supply mix

**Renewables + battery resources required to replicate an  
efficient 1,000 MW gas plant:**

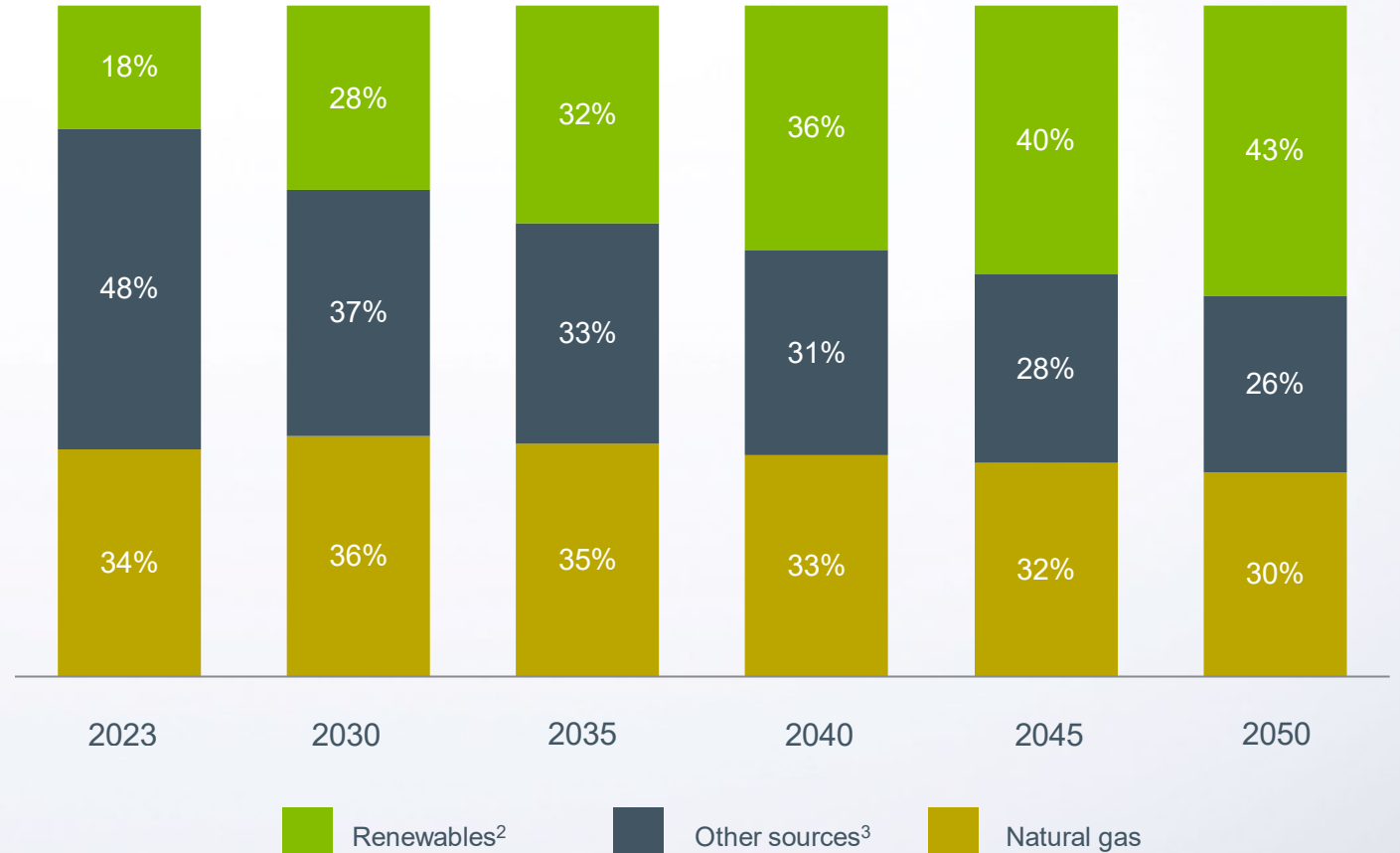
**~10x**  
Capital

**~9x**  
Capacity

**~1,000x**  
Land



# Renewable energy will play a larger role in the energy supply mix going forward



Forecasted NAMR<sup>1</sup> electricity net generation, by source (TWh, % share)

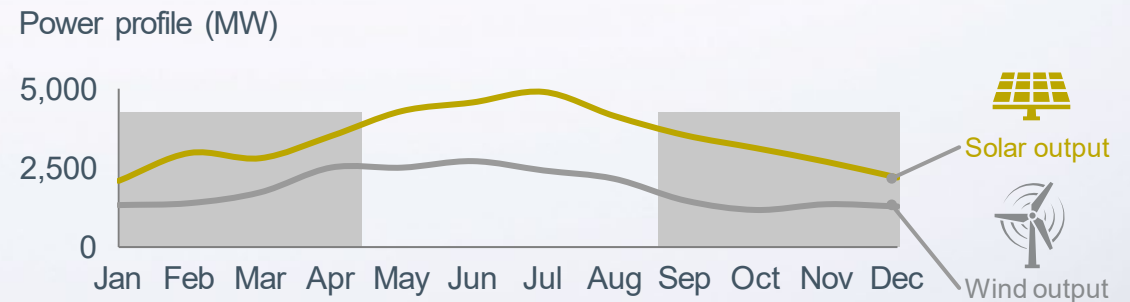
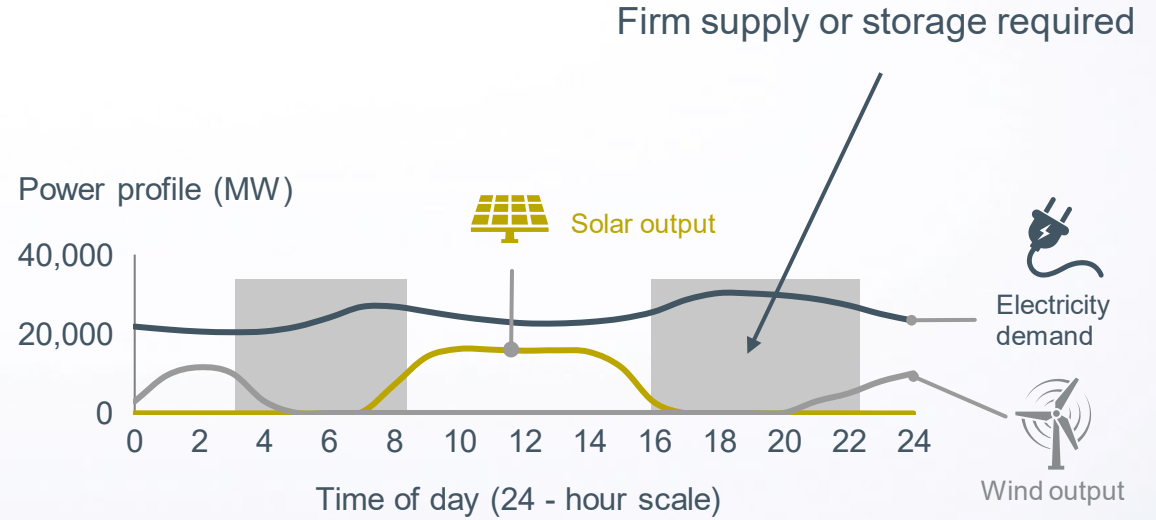
1. North America (Canada + US); business as usual (BAU) estimates

2. Includes solar, wind, geothermal, biomass, solar thermal

3. Includes hydro, nuclear, petroleum, and coal

Source: EIA Annual Energy Outlook 2022, Energy Innovation LLC, Independent third-party energy forecast

# Intermittent nature of solar and wind requires FlexGen to maintain reliability



## Aging transmission infrastructure and weather events increasingly contribute to outages

**~25-30%**  
of transmission and distribution infrastructure at end of useful life<sup>1</sup>

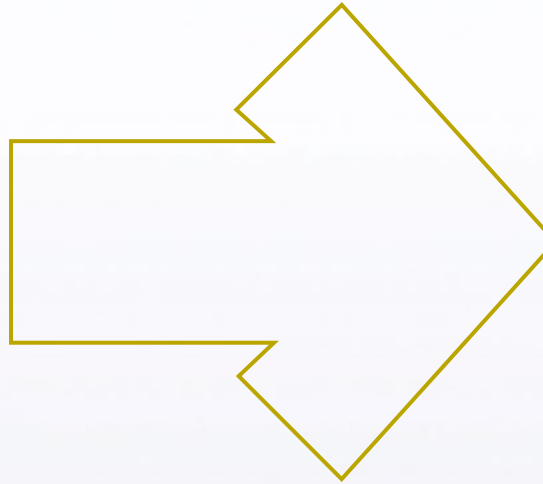
**13%**  
annual increase in outages<sup>2</sup>

1. Assets less than 30-years old are considered within useful life

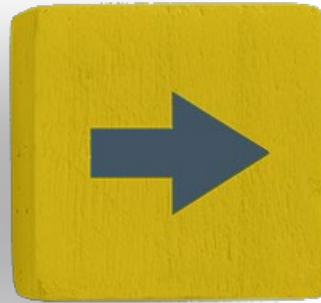
2. 2000-2021

Source: ABB Velocity Suite; Department of Energy; BCG analysis BCG Analysis

Supply, demand  
and external forces  
driving demand for  
**more firm supply**



**Strong future for  
FlexGen assets**



The need for more  
FlexGen and balanced  
energy solutions is  
**here today**



# Our **balanced energy solutions** create a market-ready strategy

## Resources

- Superior fleet
- Access to capital

## Capabilities

- Operational excellence
- Asset optimization
- Deep commercial expertise



## Market opportunity

- Long-term and growing need for grid-firming FlexGen supply



## Market-ready strategy

- Delivering balanced energy solutions through deliver-build-create strategy

We have a **clear strategy** in a growing market with an established business model

## Our Strategy

	DELIVER Established business with cash flow	BUILD Greenfield & brownfield expansion	CREATE Commercial solutions for wholesale customers
Description			
CORE BUSINESS	<b>1 FLEXGEN</b> Optimize current fleet, acquire new FlexGen assets in key U.S. markets	Expand firm capacity, build utility-scale storage	<b>4</b> Balanced energy solutions to C&I customers
	<b>2 RENEWABLES</b> Evaluate asset recycling opportunities	U.S. solar expansion, wind projects that support balanced energy solutions	
	<b>3 TRADING &amp; ORIGINATION</b> Expand activity around existing fleet		
BEYOND	<b>NEW VALUE CREATION PATHWAYS</b> Employ proven technologies to reduce emissions and build new business lines across the power value chain		



We are an **ESG leader** committed to clean power and active stakeholder engagement

**Going Beyond** | We are evolving our targets and going beyond carbon accounting to reach our 2045 net zero target

ESG achievements

**40%**

reduction in emission intensity<sup>1</sup>  
while growing our fleet

**50%**

women on our executive team<sup>2</sup>

**1.06 HSE**

performance index<sup>3</sup>

1. Over the 10-year period from 2014-2023 2. As of April 30, 2024 3. As of year-end 2023



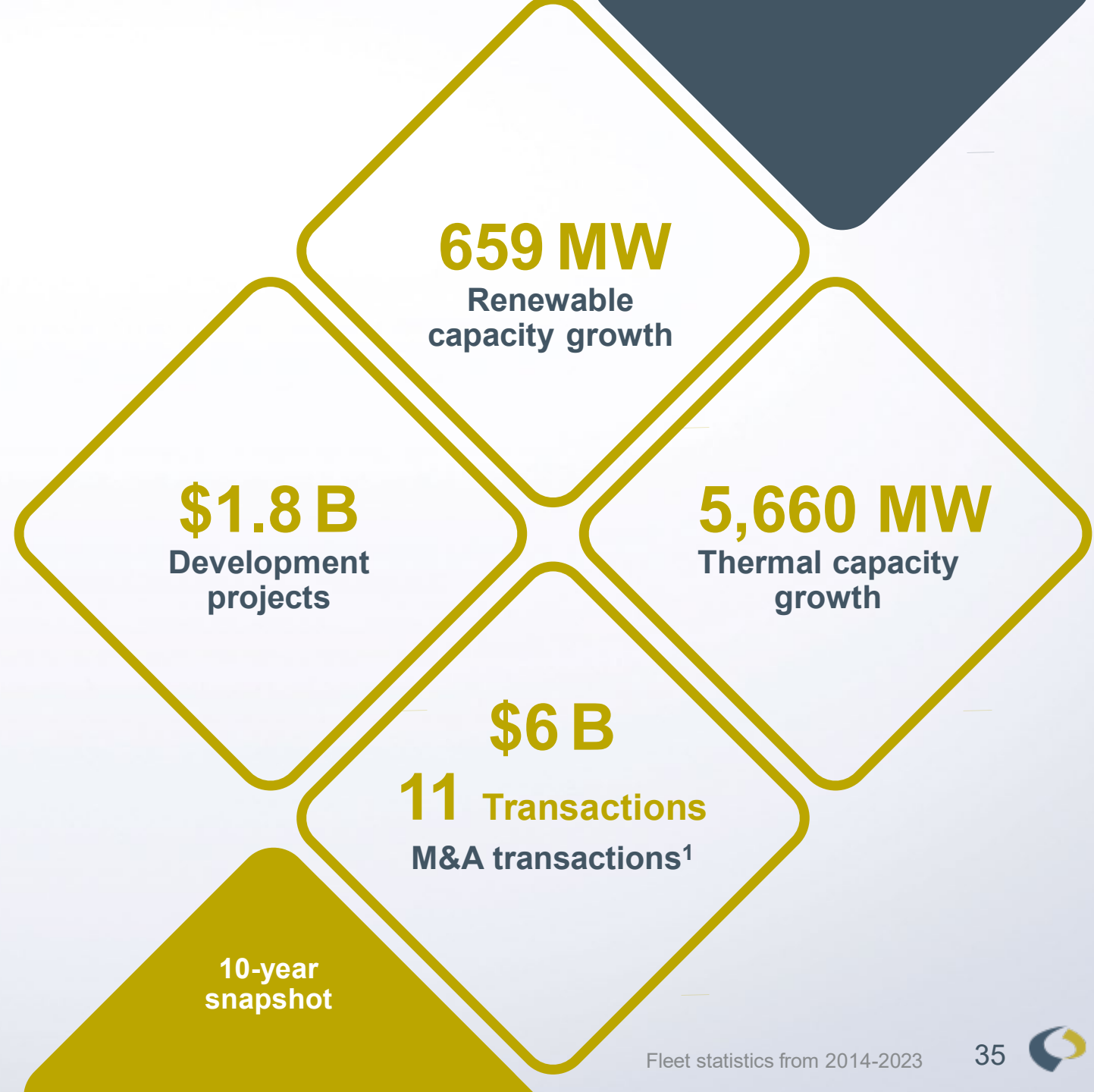
We are **uniquely positioned** to excel in the North American power industry – **today** and **tomorrow**

- ✓ Proven track record
- ✓ Competitive advantage
- ✓ Market opportunity
- ✓ Market-ready strategy

# Deliver Acquire and Optimize



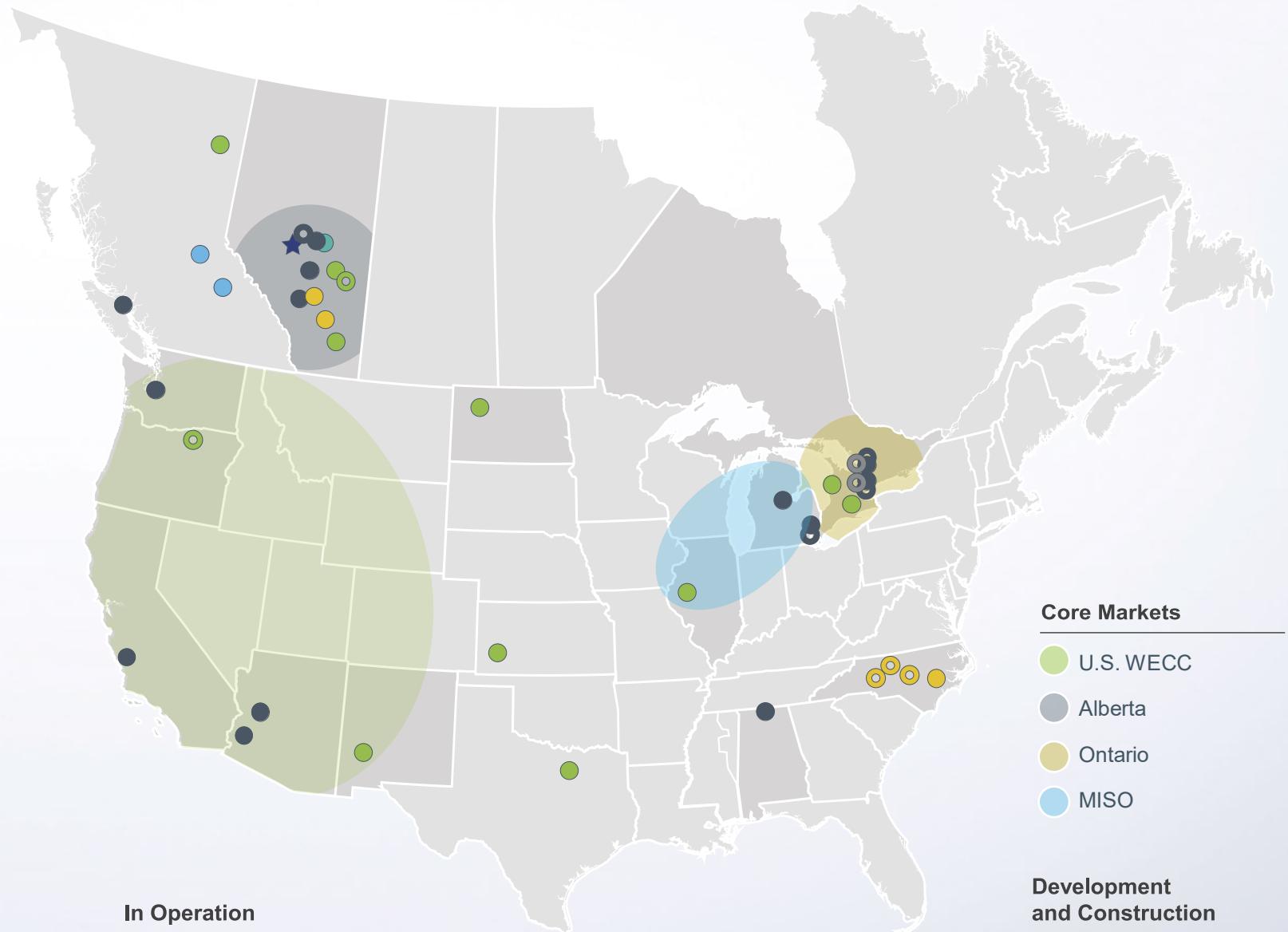
**Delivering**  
shareholder value  
through M&A,  
commercial and  
operational  
excellence



1. Denotes full transaction value inclusive of partner working interest



We have a **diverse portfolio** anchored in our core markets



**In Operation**

- Wind
- Solar
- Gas
- Waste Heat
- Landfill Gas
- Battery Storage

★ Gas / Coal\*

**Core Markets**

- U.S. WECC
- Alberta
- Ontario
- MISO

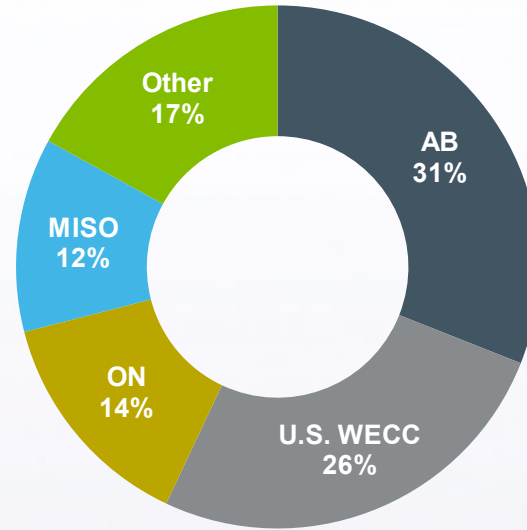
**Development and Construction**

- Development and Construction

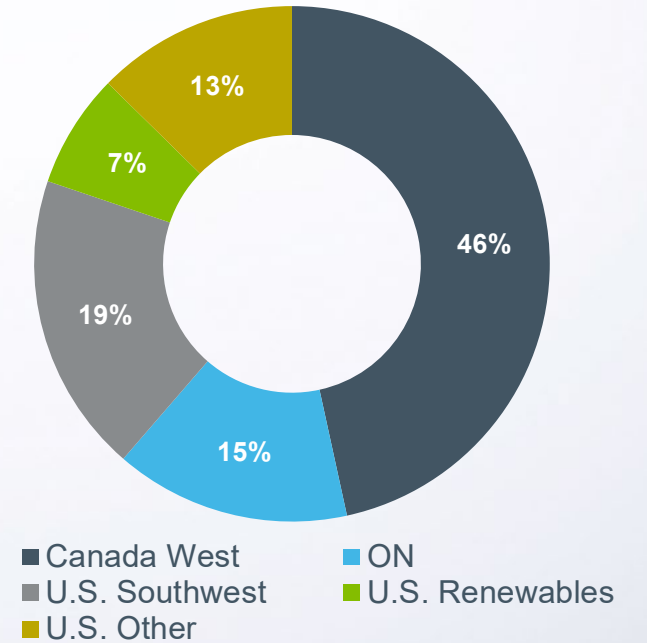
\*Genesee 1, 2, 3 shown as one facility

Our core markets need **grid-firming solutions** to meet demand growth from multiple sources

Capacity by market



Adjusted 2024 EBITDA by geography



We are well positioned to **create value** through upgrades and expansions at **existing sites**

**30-50% lower**

upgrade vs build  
(cost/MW)

**15-25% lower**

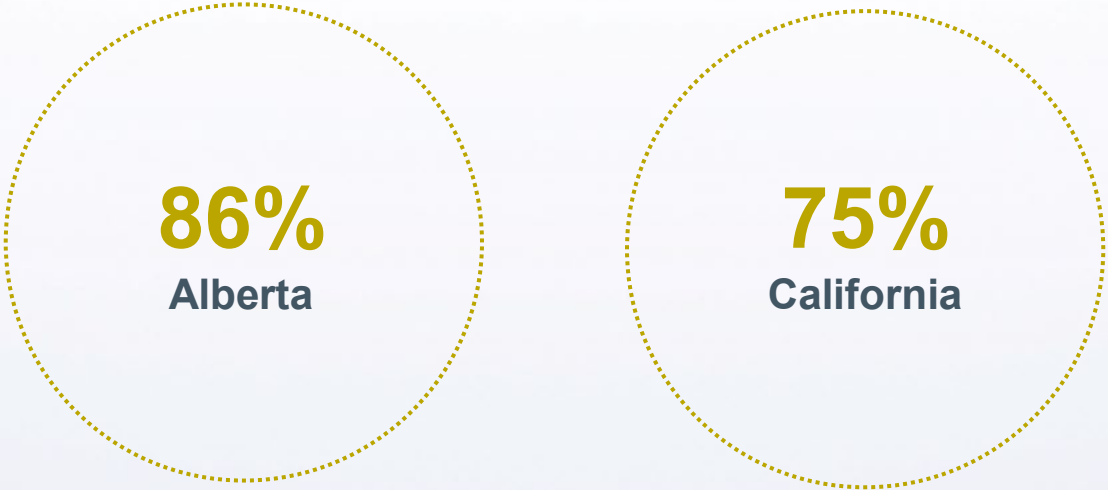
brownfield vs build  
(cost/MW)

| We have a **proven track record** of M&A value creation

**6-9%**  
AFFO per share accretion

**3-10 years**  
PPA extension

# We have strong **contracted gross margins** across our portfolio



Contracted gross margins represent 2025 estimated figures  
Contracting % based on forward expectations as of March 31, 2024



## We deliver value through our existing asset base

- ✓ Established position in key markets
- ✓ Strong fundamentals drive demand for our assets
- ✓ Commercial focus converts demand into tangible returns
- ✓ Multiple paths to creating value through trading and origination

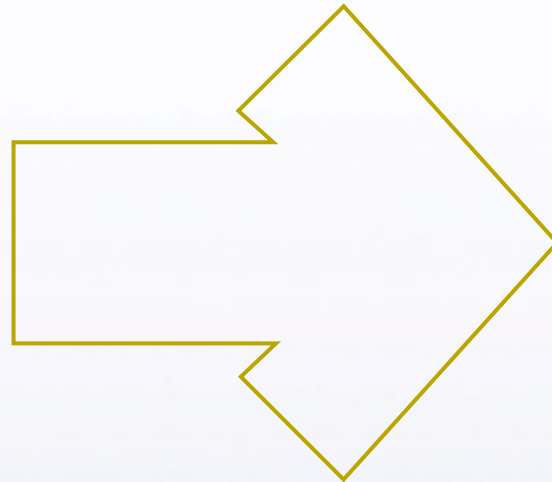
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# Deliver Operational Excellence





Operational  
excellence



Enhanced  
shareholder  
value



## Bigger

Increasing output and enabling higher capacity factors



## Better

Leading reliability



## Cleaner

More efficient and responsible



## & Going beyond

Utilizing brownfield sites to their full potential

# We are reliably delivering **growth and contracting opportunities**



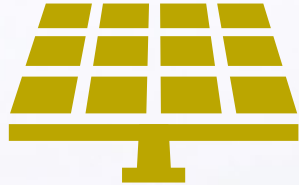
**7.8 GW**

**19 facilities  
63 turbines**



**1.36 GW**

**10 facilities  
540 turbines**



**130 MW**

**3 facilities  
350k panels**

# How do we do it **better** than the rest?



We make the **right decisions** to extract maximum performance and value from our fleet

# Track record of success

## FlexGen

**Goreway**  
*Actual*



**Bigger**

CT upgrades



**Better**

Low-load optimization



**Cleaner**

Water treatment upgrades



**& Going beyond**

Utility-scale batteries

**Harquahala**  
*In Process*



**Bigger**

Cooling pond upgrade



**Better**

Comprehensive life-cycle program for turbine maintenance



**Cleaner**

Managing cooling needs with less water and power



**& Going beyond**

Stay tuned...



# Track record of **success** **Renewables**



## **Bigger**

Controls optimization



## **Better**

Vestas LTSA partnership  
Lightning protection upgrade



## **Cleaner**

Smart curtailment



## **& Going beyond**

Kingsbridge 1 Wind green hydrogen and storage study

# | Why does **operational excellence** matter?

# It creates and drives enhanced value



## Bigger

**200+ MW**

of site upgrades and \$40 M+ fuel savings through efficiency improvements



## Better

**93%**

fleetwide availability vs. NERC average of high-80% range



## Cleaner

**~\$190 M**

avoided in carbon compliance costs over 10 years



## & Going beyond

**~\$60 M**

annual EBITDA improvement



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# Build Positioned to Grow



**Building** balanced energy solutions by executing North American development projects

**590 MW**

Expanded our U.S. renewables portfolio

**2024 YE**

Genesee Repowering complete

**10 sites**

Battery storage potential

**9 sites**

Expansion and optimization opportunities

10-year snapshot



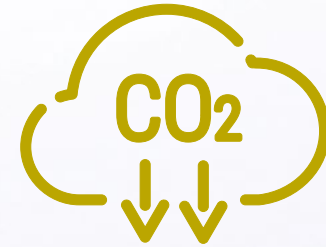
# Building on our **successful history:** **Genesee Repowering**



**Most efficient natural gas  
combined cycle plant in  
Canada**



**512 MW**  
Additional net  
capacity



**Up to 3.4 Mt**  
Annual emission  
reduction

Value creation through increased efficiency, higher capacity and decarbonization

# Executing **balanced** energy solutions: **Genesee Repowering**



Unit 1 Simple Cycle is operational  
Unit 2 Simple Cycle firing targeted by end of May 2024

Genesee, Capital Power and Alberta will be off coal by the end of May 2024

# Building **balanced** energy solutions: **East Windsor Cogeneration Expansion**

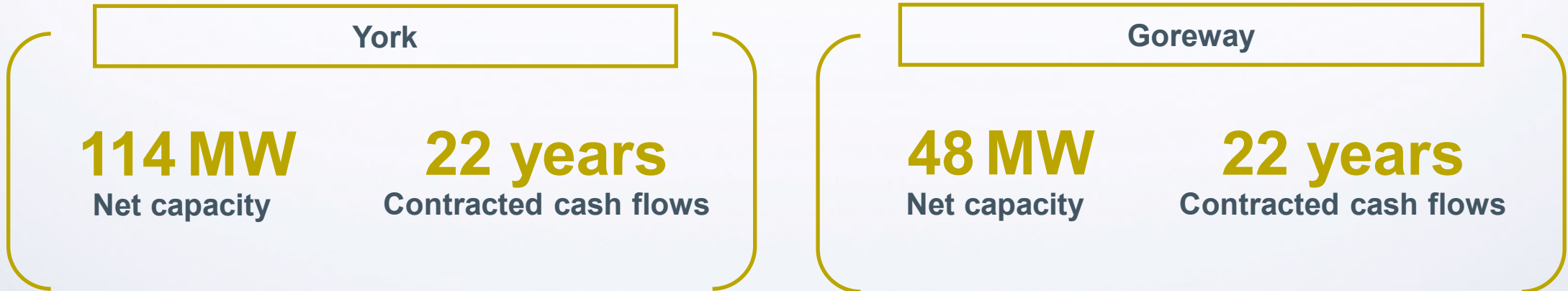
**100 MW**  
Additional net  
capacity

**2026**  
Expected  
completion

**14 years**  
Contracted  
cashflow



# Building **balanced** energy solutions: **York and Goreway utility scale batteries**



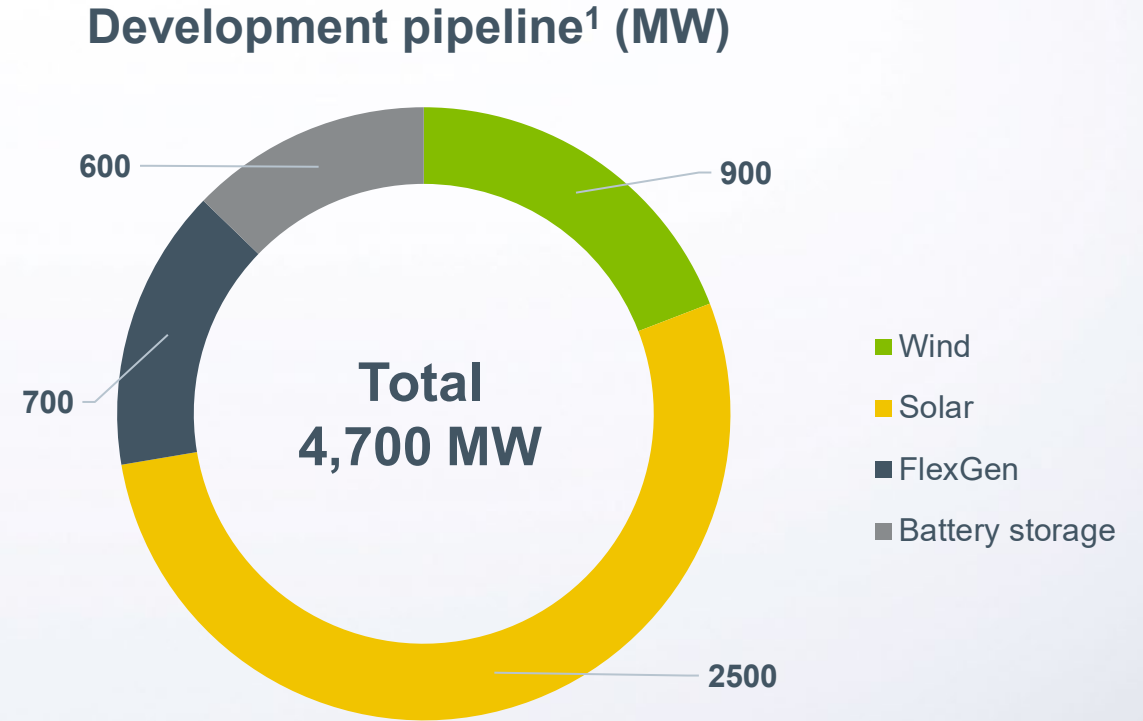
# Building **balanced** energy solutions: **Maple Leaf Solar**

**73 MW**  
Net capacity

**2026**  
Expected  
completion

**25 years**  
Contracted  
cashflow

# Positioned for further growth



1. Diversified by fuel type and geography; various stages of development

# We are **building** balanced energy solutions

- ✓ Prudent and proven process for portfolio growth
- ✓ Genesee Repowering a shining example of our ambition
- ✓ Pipeline of diverse development opportunities

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# Create Balanced Energy Solutions



We **create**  
balanced energy  
solutions for  
wholesale  
customers by  
delivering an  
integrated platform





**Beyond today:**  
Decarbonize and establish  
new pathways across the  
power value chain

## Evaluation Framework

- Supportive policy
- Technical readiness
- Scalability
- Competitive economics
- Commercial underpinning



# We are **creating opportunities** for the future

- ✓ We are ready today
- ✓ Established customer relationships
- ✓ Proven trading and origination platform
- ✓ Established market and regulatory expertise across North America

# A Proven Approach to **Funding Growth**

# Exceptional financial stewardship and capital management

**~\$5 B**

Market capitalization

**BBB- /  
BBB (low)**

Investment grade credit rating

**~90%**

A-rated PPA counterparties

**~40% / ~60%**

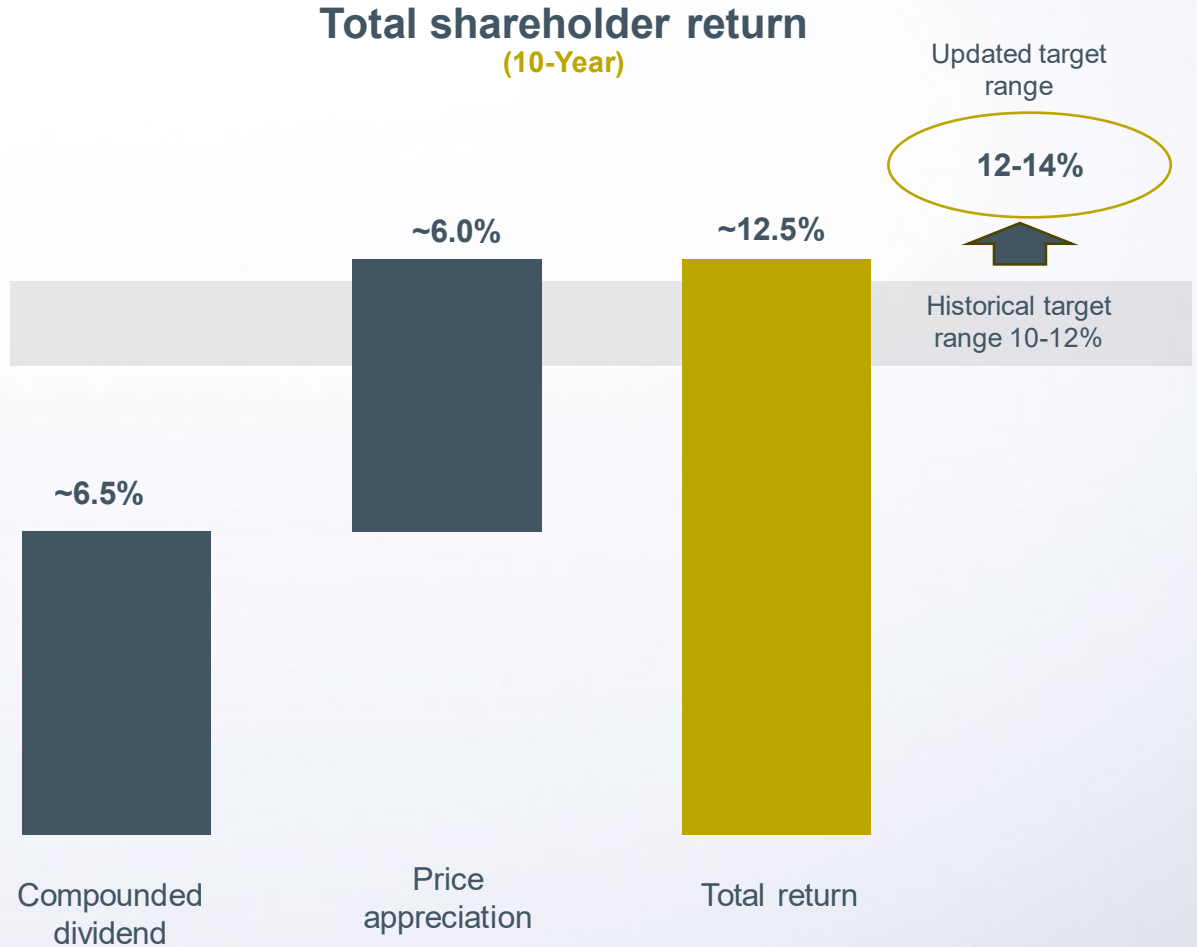
U.S. / Canada  
2024 adjusted EBITDA

**~75%**

Contracted 2024E  
adjusted EBITDA



We deliver **superior total shareholder returns** and are **well positioned to enhance returns** as we grow



1. Total shareholder return is comprised of share price appreciation and dividends paid, expressed 1) via indexing, and 2) as annualized percentage  
2. As of December 31, 2023

# Stable weighted average contract life<sup>1</sup>

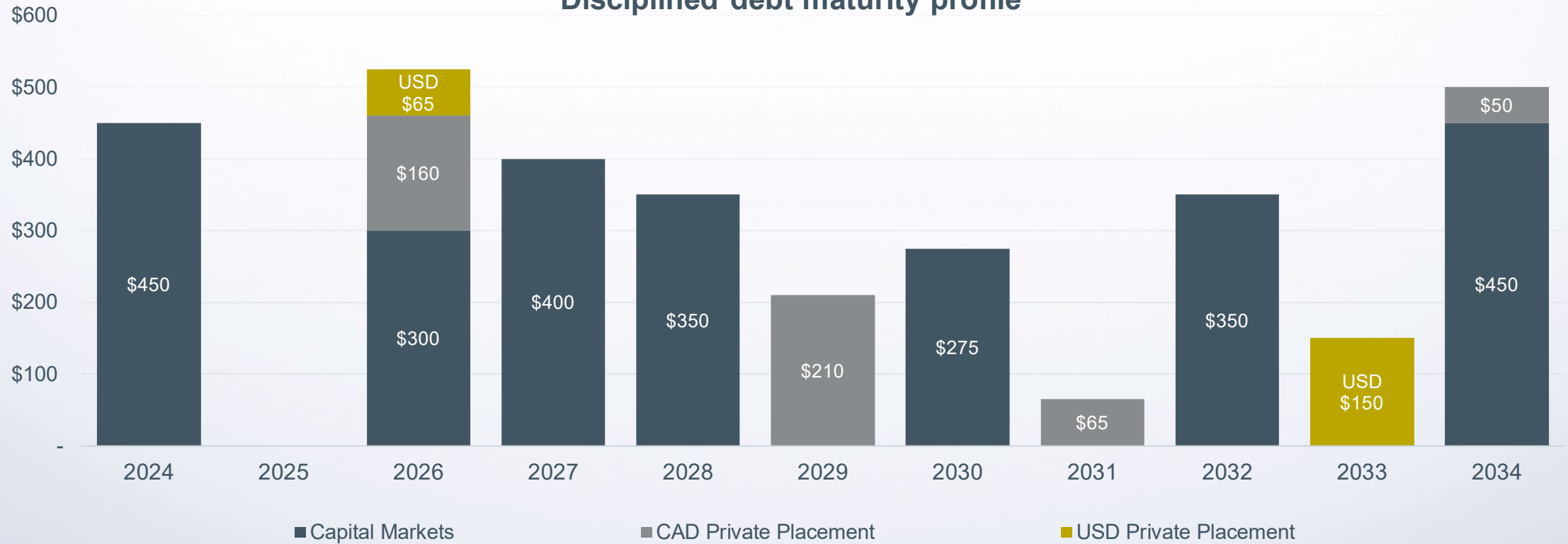


1. Datapoints shown represent EBITDA weighted average contract life at the end of each year

# Low-risk capitalization

## Locked in low-cost debt

Disciplined debt maturity profile<sup>1</sup>



1. All represented in CAD unless noted; excludes short-term debt and tax equity investments

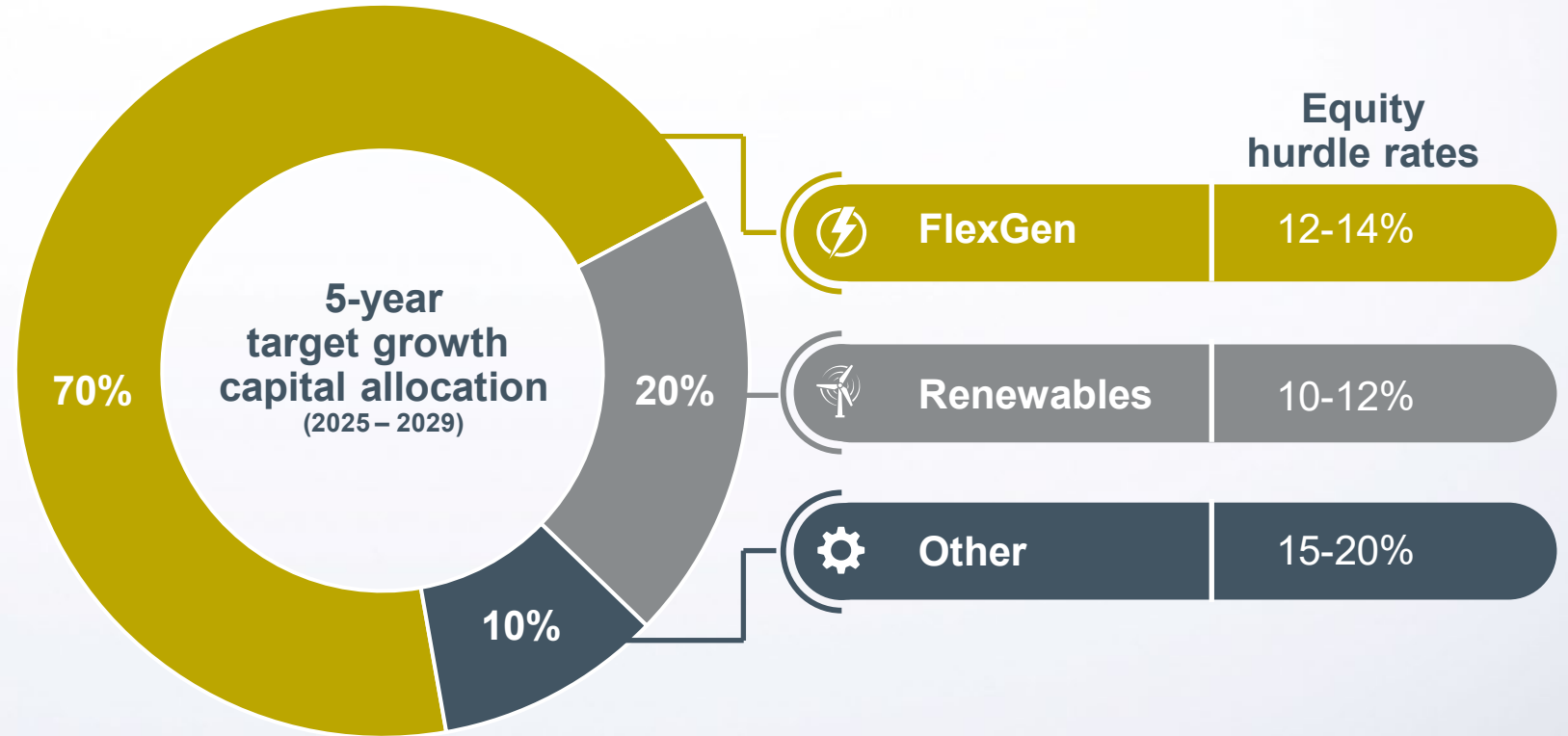
We will continue to be **prudent stewards of capital** as we look to execute our long-term vision of changing power

# Capital investment screening criteria





We have a **disciplined approach** to capital allocation



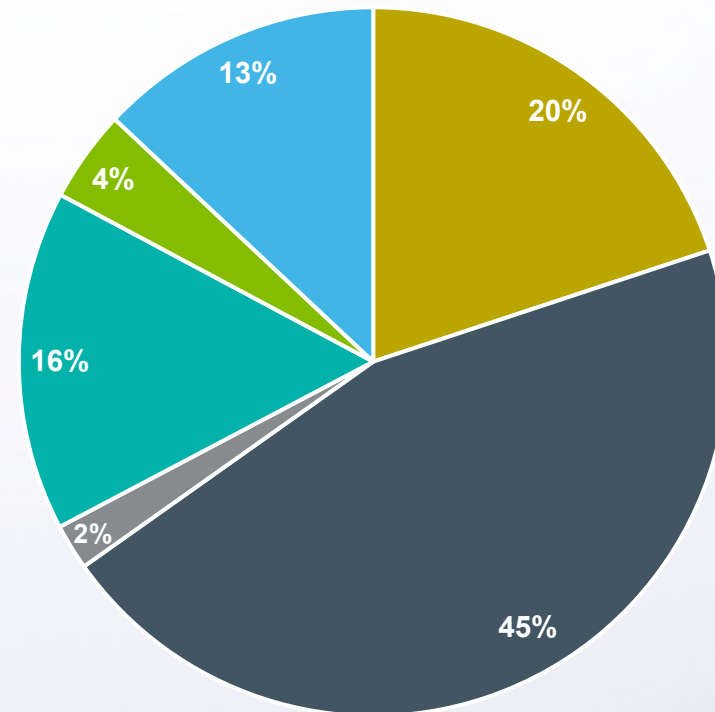
Targeted total shareholder return of 12-14%

We are focused on markets we understand and with **the right fundamentals**

		Our core businesses		
		FlexGen	Renewables	Trading & Origination
Our core markets today	→	Alberta, Ontario, MISO, WECC		All markets in North America to support our generation fleet
Growth markets we are evaluating	→	PJM, ERCOT	Southeast, WECC, SPP	

# Our high quality portfolio drives **multiple sources** of funding

- Internally generated cash flows
- Corporate and asset level debt
- Hybrids and preferred shares
- Partnerships
- Asset recycling
- Common equity



■ Internal Cash Flows ■ Debt<sup>1</sup> ■ Hybrids<sup>3</sup> ■ Partnerships ■ Asset Sales<sup>4</sup> ■ Common Equity<sup>2</sup>

1. Includes project level debt and tax equity 2. Includes bought deals and DRIP proceeds 3. Includes preferred shares and hybrid debt 4. Reflects asset recycling of Keephills  
Chart reflects 2019-2023 timeline

We are a **partner of choice** for leading global investors



| We are driving **shareholder value** through a low-risk and balanced approach to growth

We have a **strong track record** of AFFO and dividend per share growth

**AFFO per share**  
~13% CAGR



**Dividend per share**  
~7% CAGR



We are committed to **growing our dividend per share**, as we **invest in growth**



1. Represents simple average of 2019 to 2023  
Subject to market conditions, economic outlook, cash flow forecast, and Board approval at the time

We have a  
**proven approach**  
to funding growth

- ✓ Stable, low-risk cash flows from our diverse portfolio
- ✓ Strong track record of per share growth
- ✓ Multiple sources of low-cost funding
- ✓ Prudent capital allocation drives per share growth
- ✓ Ability to deliver targeted TSR of 12-14%



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# Why **invest** in Capital Power?



| **Capital Power is best positioned to lead the North American energy expansion**

## Strong foundation

**We are market ready with a unique competitive advantage**

- Superior fleet
- Access to capital
- Deliver, build and create better than our peers

## Market opportunity

**Demand for grid-firming supply**

- Power demand will double by 2050
- Power reliability is challenged

## Market-ready strategy

**Grow FlexGen and renewables**

- FlexGen underpins economic, population and clean energy growth
- Key U.S. markets offer the best opportunities



# Our platform is proven. We are ready to win.



# Questions & Answers



# Forward-looking information

Forward-looking information or statements included in this presentation are provided to inform our 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 in this presentation 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 in this presentation includes expectations regarding:

- our 2024 performance targets including for facility availability, sustaining capital expenditures, hedged position, FFO to debt ratio, adjusted funds from operations (AFFO) and adjusted EBITDA;
- our plans to transition off-coal and commercial application of carbon conversion, capture and storage technologies;
- 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;
- expectations from DRIP activation;
- the timing of, funding of, generation capacity of, operational performance and financial returns of, costs of technologies selected for, environmental and sustainability benefits including contributions to affordability, reliability, and decarbonization, commercial and partnership arrangements regarding existing, planned and potential development projects and acquisitions (including phase 2 of Halkirk Wind, the repowering of Genesee 1 and 2, the upgrade at Goreway and York Energy, Goreway Battery Energy Storage System (BESS), York Energy BESS, East Windsor expansion, and the Maple Leaf Solar project);
- the financing plans, transaction close timing, financial impacts, receipt of required regulatory approvals, and future development opportunities of Frederickson 1 Generating Station;
- future growth and emerging opportunities in our target markets;
- the impact of the regulatory developments on our projects and business;
- potential opportunities and partnerships with Indigenous communities;
- market and regulation designs and proposals and the impact thereof on the Company's core markets; and
- the impact of climate change.

These statements are based on certain assumptions and analyses made by Capital Power 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 and other energy and carbon prices;
- performance;
- business prospects (including potential re-contracting of facilities) and opportunities including expected growth and capital projects;
- status and impact of policy, legislation and regulations;
- effective tax rates;
- the development and performance of technology;
- foreign exchange rates; and
- other matters discussed under the Performance Overview, Outlook and Risks and Risk Management sections.

Whether actual results, performance or achievements will conform to our expectations and predictions is subject to several known and unknown risks and uncertainties which could cause actual results and experience to differ materially from our expectations. Such material risks and uncertainties are:

- changes in electricity, natural gas and carbon prices in markets in which we operate 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 our 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 our 2023 Integrated Annual Report 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. Capital Power 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 our 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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# Investor Relations



**Roy Arthur**

VP, Investor Relations

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