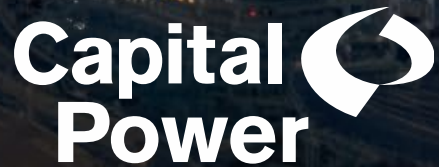


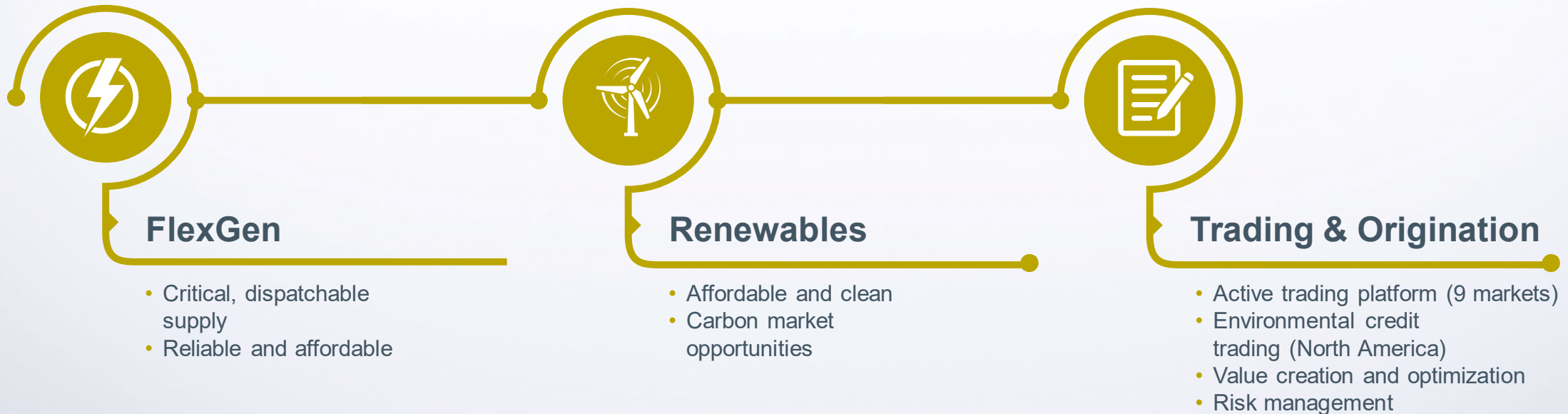
Reliable • Affordable • Clean

Building the leading power producer in North America

May, 2024



Our core businesses uniquely position us to excel in the North American power industry



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

12.5%

10-year total
shareholder return¹

~\$5 B

Market
capitalization

40%

reduction in emission
intensity

4x

increase total
capacity

2014-2023

~40% / ~60%

U.S. / Canada
2024 adjusted
EBITDA

\$6 B

M&A transactions²

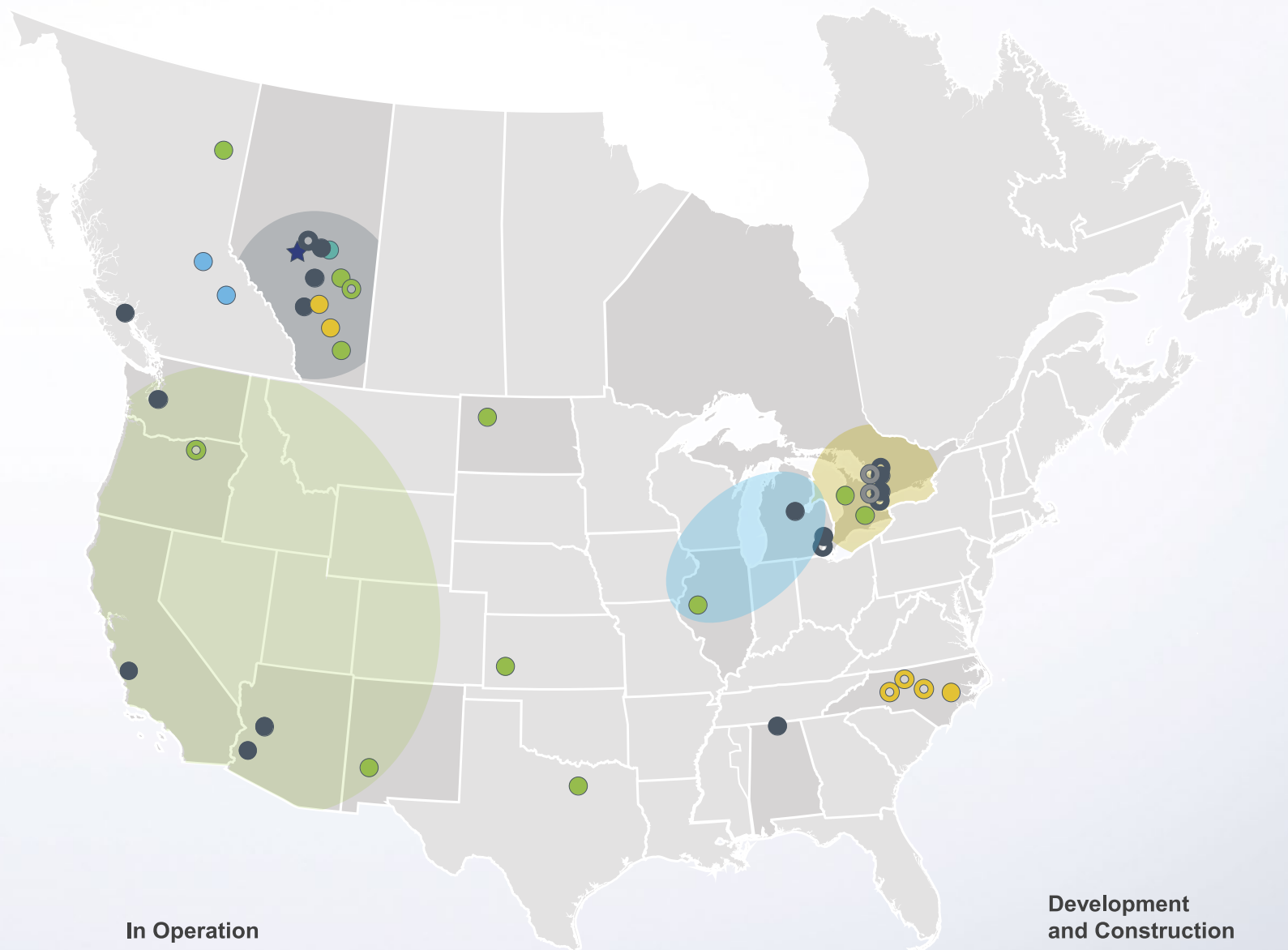
2014-2023

1. As of December 31, 2023

2. Denotes full transaction value inclusive of partner working interest



We have a
diverse portfolio
anchored in our
core markets



Core markets | Capacity

- U.S. WECC | ~30%
- Alberta | ~30%
- Ontario | ~15%
- MISO | ~15%
- Other | ~10%

In Operation

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

Development and Construction

-

*Genesee 1, 2, 3 shown as one facility



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	



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 intensity¹
while growing our fleet

50%

women on our executive team²

1.06 HSE

performance index³



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

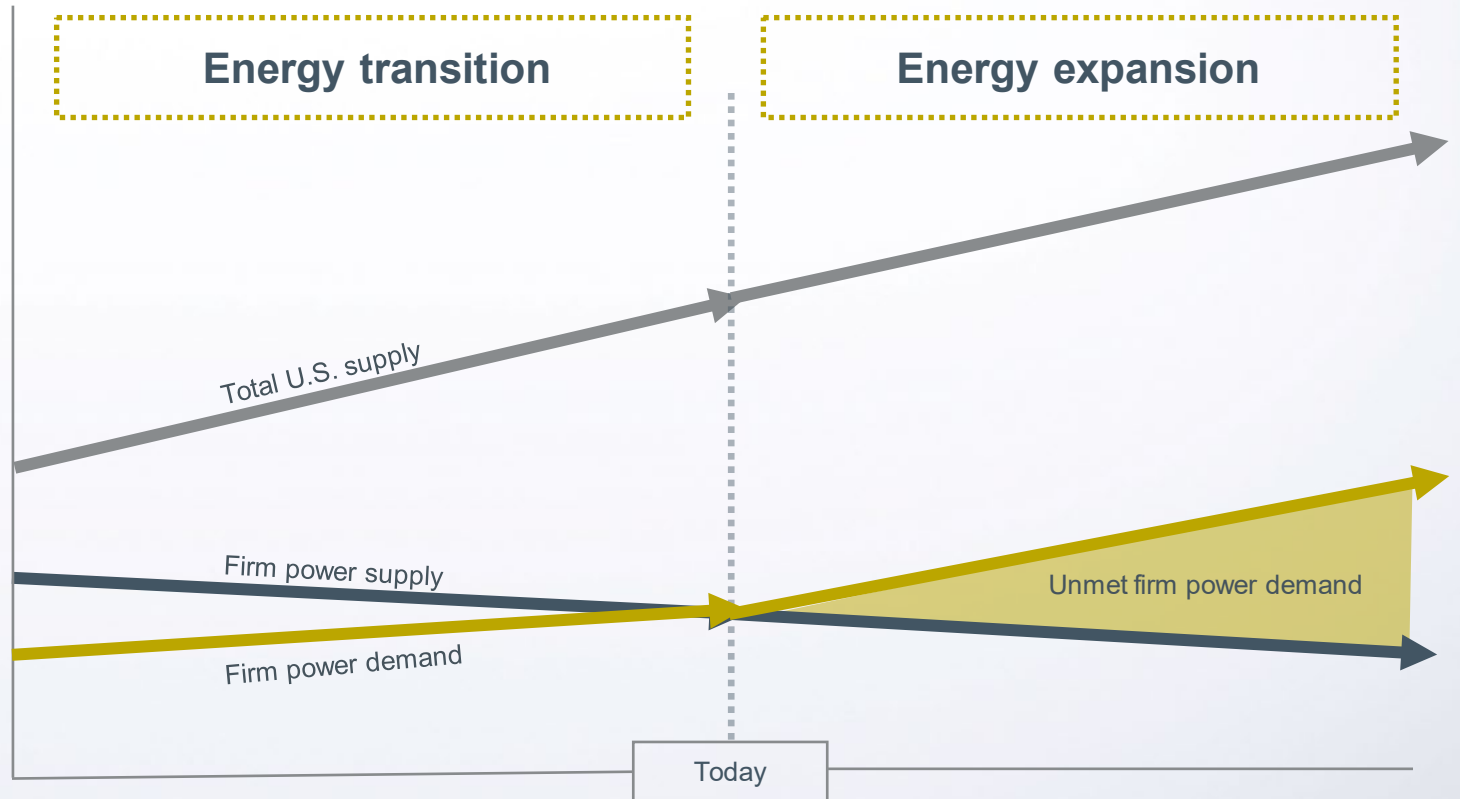


Operational excellence:

Execute high standards for asset planning, performance and safety

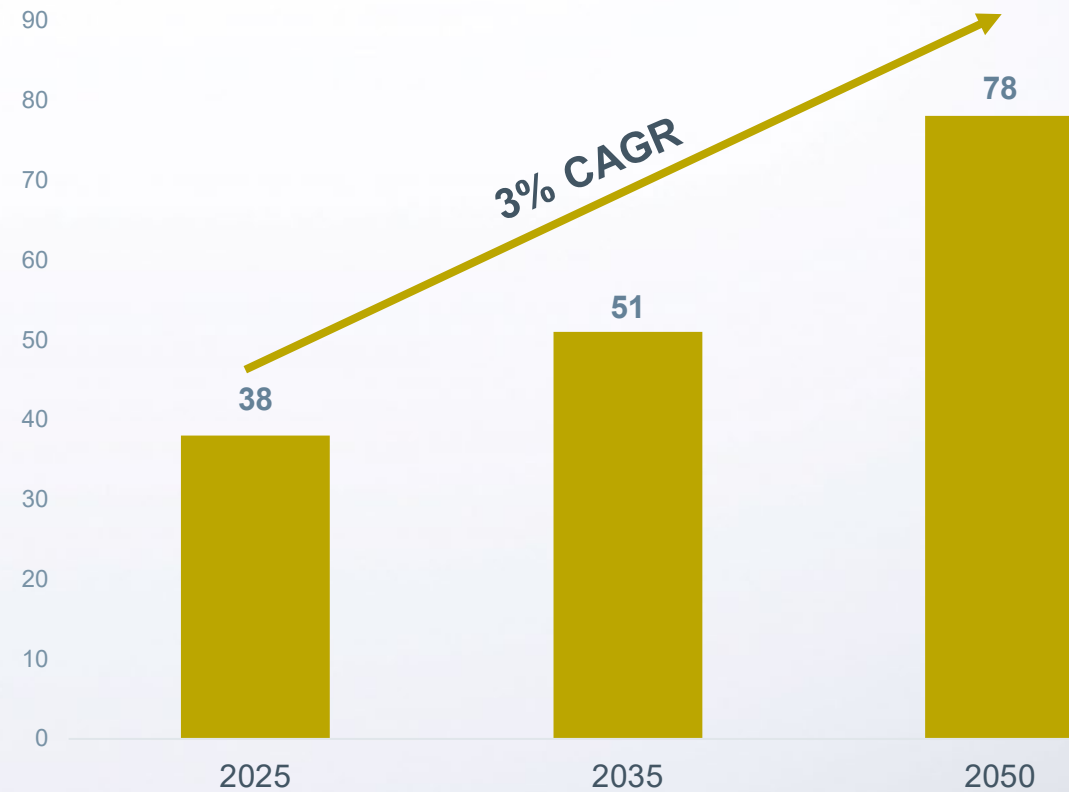


A focus on
renewables growth
has created a need
for **firm supply
expansion**



North American power demand will double by 2050

Annual energy consumption from electricity in North America (QBTU¹)



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

Our Strategy

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



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

6-9%

AFFO per share accretion

3-10 years

PPA extension

We are reliably delivering
growth and contracting opportunities



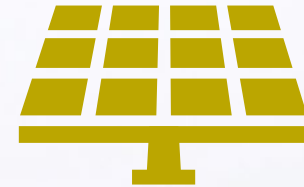
7.8 GW

19 facilities
63 turbines



1.36 GW

10 facilities
540 turbines



130 MW

3 facilities
350k panels

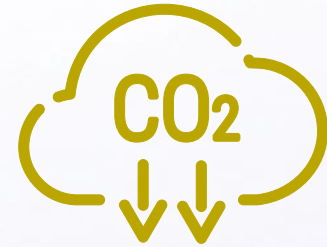
Building on our **successful history:** **Genesee Repowering**



**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

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

73 MW
Net capacity

—— **2026** ——
Expected
completion

—— **25 years** ——
Contracted
cashflow



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

We are a leading
North American
power producer with
a low-risk
capitalization

~\$5 B

Market
capitalization

**BBB- /
BBB (low)**

Investment grade
credit rating

~90%

A-rated PPA
counterparties

~7%

Dividend growth CAGR
over 10-years

~75%

Contracted 2024E
adjusted EBITDA



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

Near-term

Continued dividend growth

6% growth to 2025

Target payout ratio: 45-55%
5-year historical average payout ratio: 36%¹

Long-term

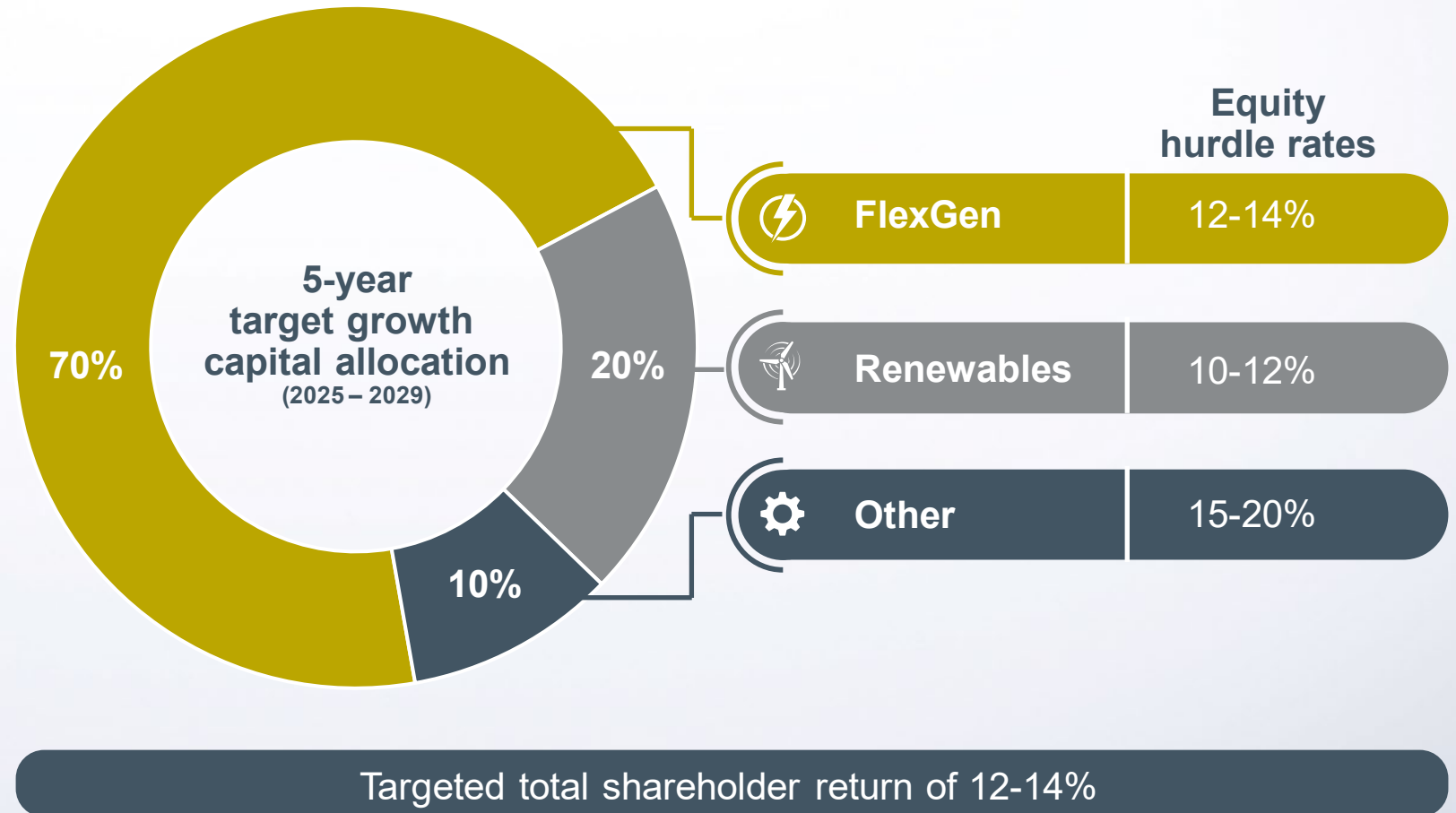
2-4% growth beyond 2025

Target payout ratio: 30-50%

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
**disciplined
approach**
to capital
allocation



Our strategic priorities build on our competitive advantages

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

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

Strong foundation

We are market ready with a unique competitive advantage

Market opportunity

Demand for grid firming supply

Market-ready strategy

Grow FlexGen and renewables

Appendix I

Power Industry Fundamentals

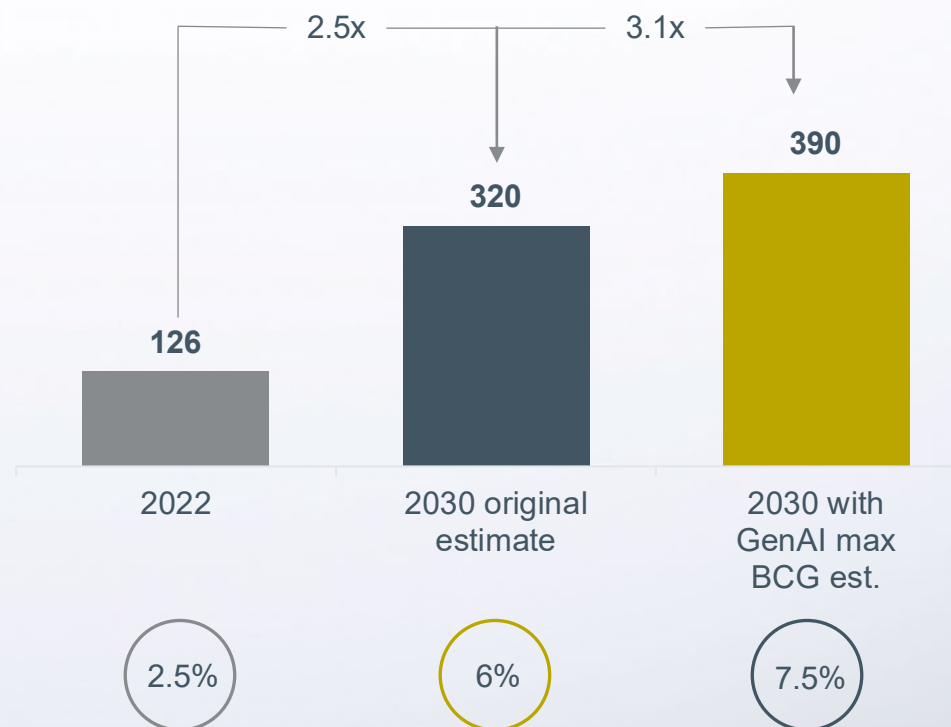


Generative AI is accelerating data center power demand growth in the U.S.

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

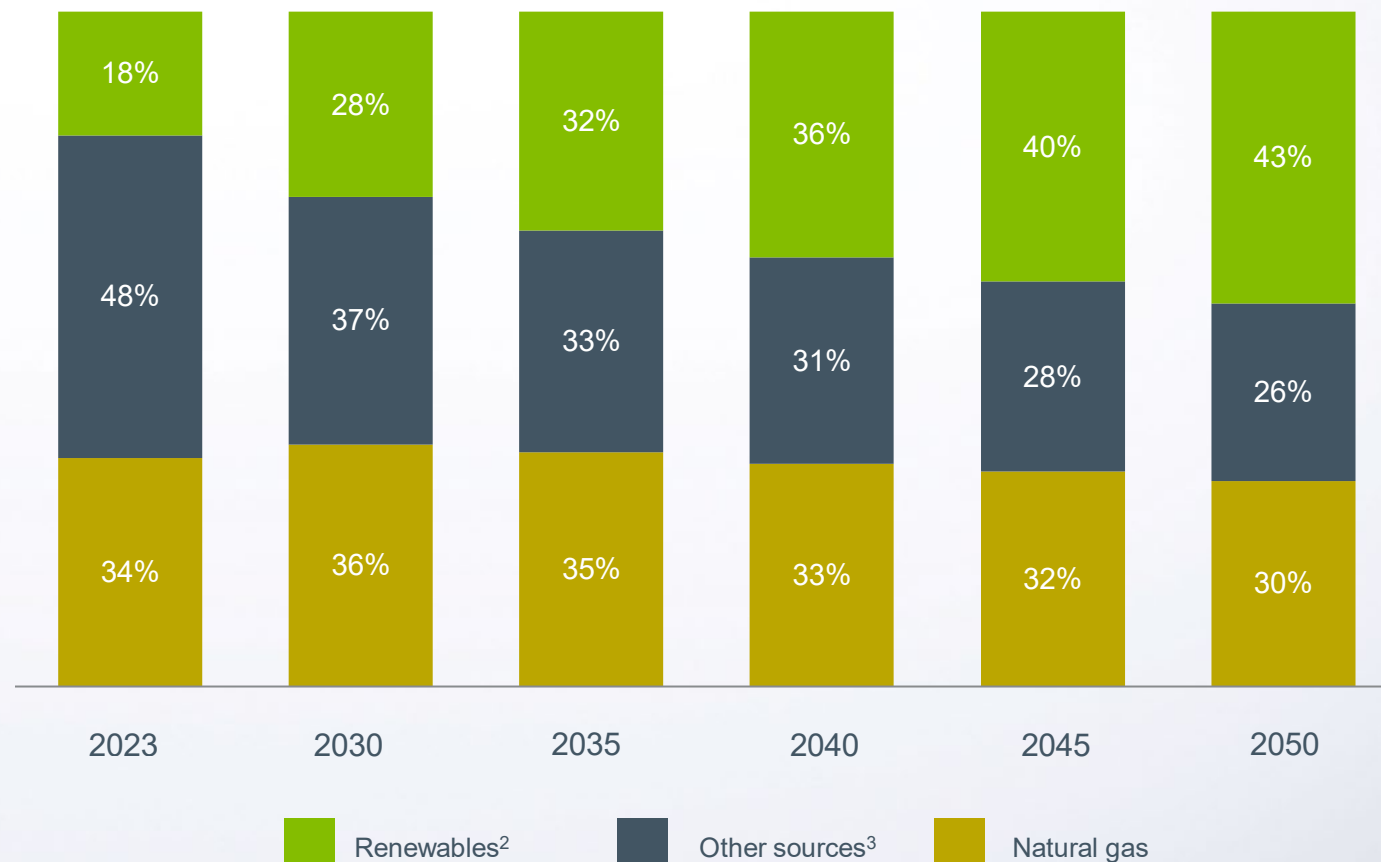
Capacity

~1,000x

Land



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



Forecasted NAMR¹ electricity net generation, by source (TWh, % share)

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

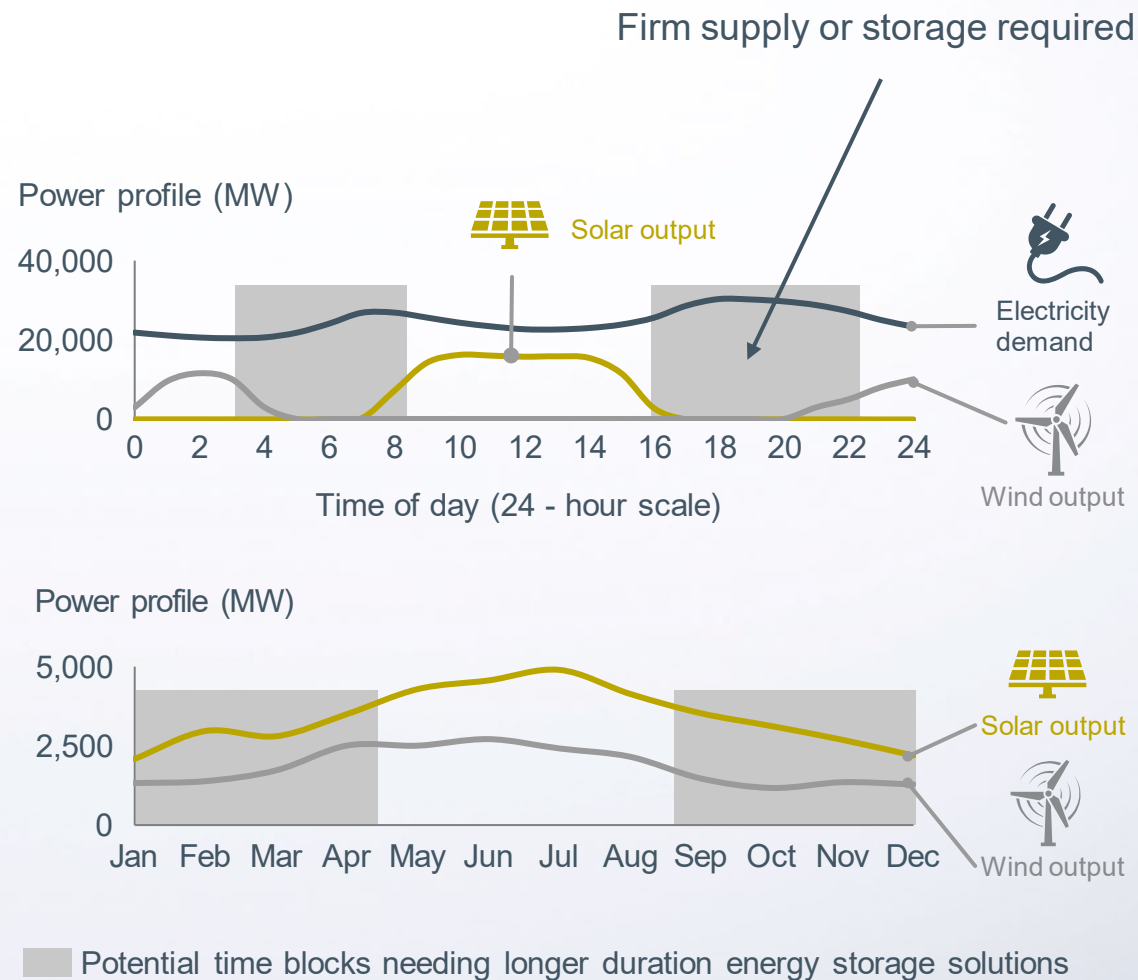
2. Includes solar, wind, geothermal, biomass, solar thermal

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

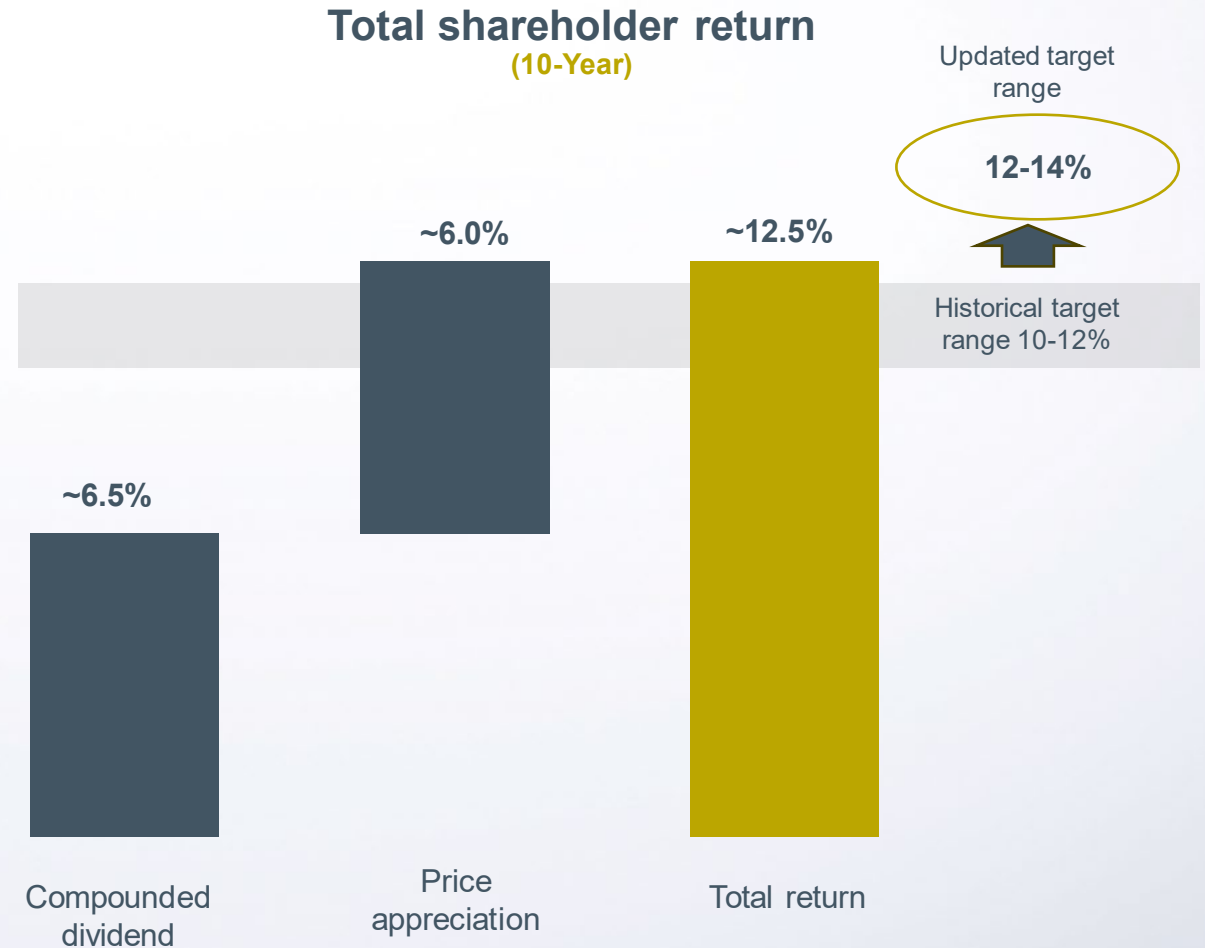


Appendix II

Additional CPX Details



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

Capital investment screening criteria



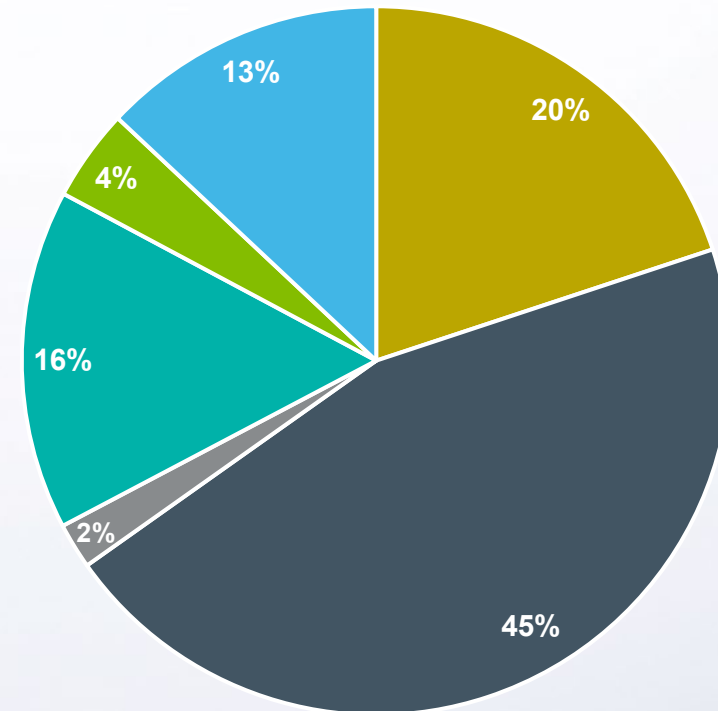
Stable weighted average contract life¹



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

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

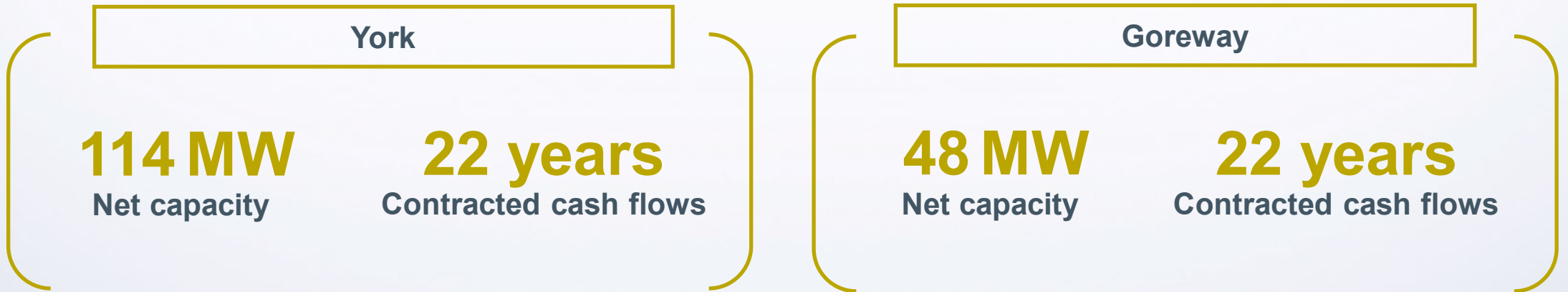
- Internally generated cash flows
- Corporate and asset level debt
- Hybrids and preferred shares
- Partnerships
- Asset recycling
- Common equity



■ Internal Cash Flows ■ Debt¹ ■ Hybrids³ ■ Partnerships ■ Asset Sales⁴ ■ Common Equity²

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

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



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.



Reliable • Affordable • Clean

Capital Power

Investor Relations



Roy Arthur

VP, Investor Relations

1-403-736-3315

investor@capitalpower.com

capitalpower.com

