Investor Day 2020

Accelerating a low carbon future

December 3, 2020

Capital Power

RESPONSIBLE ENERGY
FOR TOMORROW

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.

Executive Leadership Team

Brian Vaasjo

President and Chief Executive Officer

Sandra Haskins

SVP, Finance and Chief Financial Officer

Kate Chisholm

SVP, Planning, Stakeholder Relations and Chief Sustainability Officer

Bryan DeNeve

SVP, Business Development and Commercial Services

Chris Kopecky

SVP, Chief Legal Officer

Jacquie Pylypiuk

SVP, People, Culture and Technology

Darcy Trufyn

SVP, Operations, Engineering and Construction

Agenda

Introduction
Randy Mah / Director, Investor Relations

Accelerating a low carbon future
Brian Vaasjo / President & CEO

Advancing a low carbon future
Kate Chisholm / SVP, Planning, Stakeholder Relations & Chief Sustainability Officer

Maximizing asset value
Darcy Trufyn / SVP, Operations, Engineering & Construction

BREAK (5 minutes)

Delivering growth
Bryan DeNeve / SVP, Business Development & Commercial Services

Shareholder value in a low carbon future
Sandra Haskins / SVP, Finance & CFO

2021 Corporate priorities
Brian Vaasjo / President & CEO

Q&A

Accelerating a low-carbon future

- Resiliency
- Optimization
- Innovation

Brian Vaasjo
President & CEO

Accelerating our strategy to a low carbon future

- Capital Power has been following a strategy towards a low carbon future.
- We set a target to be net carbon neutral by 2050 and we have a path to get there.
- With today's announcement we are accelerating to that low carbon future.
- The resiliency of our strategy and our drive to innovate and optimize has enabled this acceleration.
- We'll continue delivering total shareholder value of 10 to 12%.

Resiliency and innovation through COVID-19

Priority is keeping our employees and families healthy

Operations

- Comprehensive health and safety protocols at plants successful
- Managed 7 major planned outages successfully

Corporate

- Ongoing remote work arrangements
- No change in efficiency or effectiveness

Post COVID-19

- Learnings will significantly enhance and transform the future of how we work

Strategic path to a low-carbon future

Off-coal in 2023

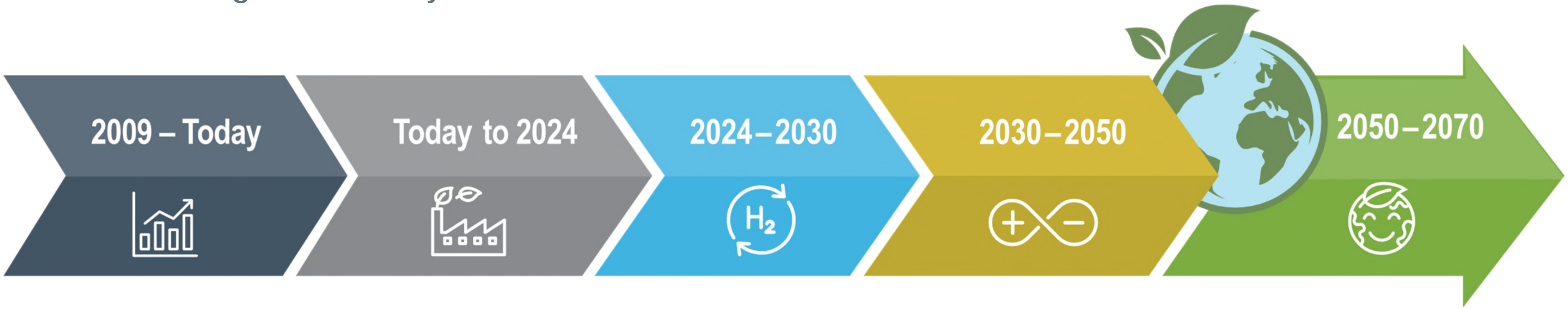
- Retirement of Roxboro and Southport power plants in 2021
- Genesee site 100% natural gas in 2023

Accelerated growth in renewables

- 7 development projects totaling 420 MW; 100 MW Buckthorn Wind acquisition

Natural gas critical to net carbon neutral transition

- Reliable, affordable, flexible power
- Carbon conversion and hydrogen technology enhance natural gas resiliency



Genesee repowering delivers long term value

Project exceeds hurdle rates and contributes in the order of $0.70 AFFO per share

- Best-in-class NGCC technology - CCS ready and hydrogen capable
- 560 MW capacity increase
- Significant environmental benefits - intensity of 0.35t/MWh; under TIER Program would generate carbon credits
- Heat rate advantage over all current and announced NGCC
- Lower cost and efficiency advantages from GPS and other innovations

Accelerated renewables growth

- 75 MW Enchant Solar project
- 40.5 MW capacity of Strathmore Solar contracted for 25 years
- 2 wind and 5 solar projects
- 4 solar projects under long term contracts

Competitiveness of wind through innovation has translated to solar

Natural gas critical to transition to carbon neutral

Natural gas resiliency

- Lower cost dispatchable energy required for grid support
- Select markets require significant natural gas beyond 2050
- Carbon conversion and hydrogen technologies support longevity
  - Increased investment in C2CNT to 25%, moving to 40%
  - Genesee Carbon Conversion Centre moving forward

Operational excellence and optimization

- Decatur Energy Center
  - Additional 90 MW by 2021
  - Improved heat rate
  - Contract extended to 2032
- Advanced pattern recognition

Ops 2030 to deliver additional $50 million of EBITDA

Financial

2020 at or better than targets set last December

2021 relatively flat

- Strong power price offset Genesee off contract, carbon tax increase and North Carolina retirements
- Dividend guidance for 2021 and 2022 unchanged

Strategic growth

- Current 2021 capital spend on development
- 2021 target of $500 million
- Continue disciplined growth
- General market dynamics good

Responsible energy for generations to come

Integrating ESG into our strategy

Embedding ESG factors in our decision-making

Advancing Social and Governance initiatives

- Board and Executive diversity
- Indigenous employment opportunities
- Equal by 30

Advancing a low carbon future

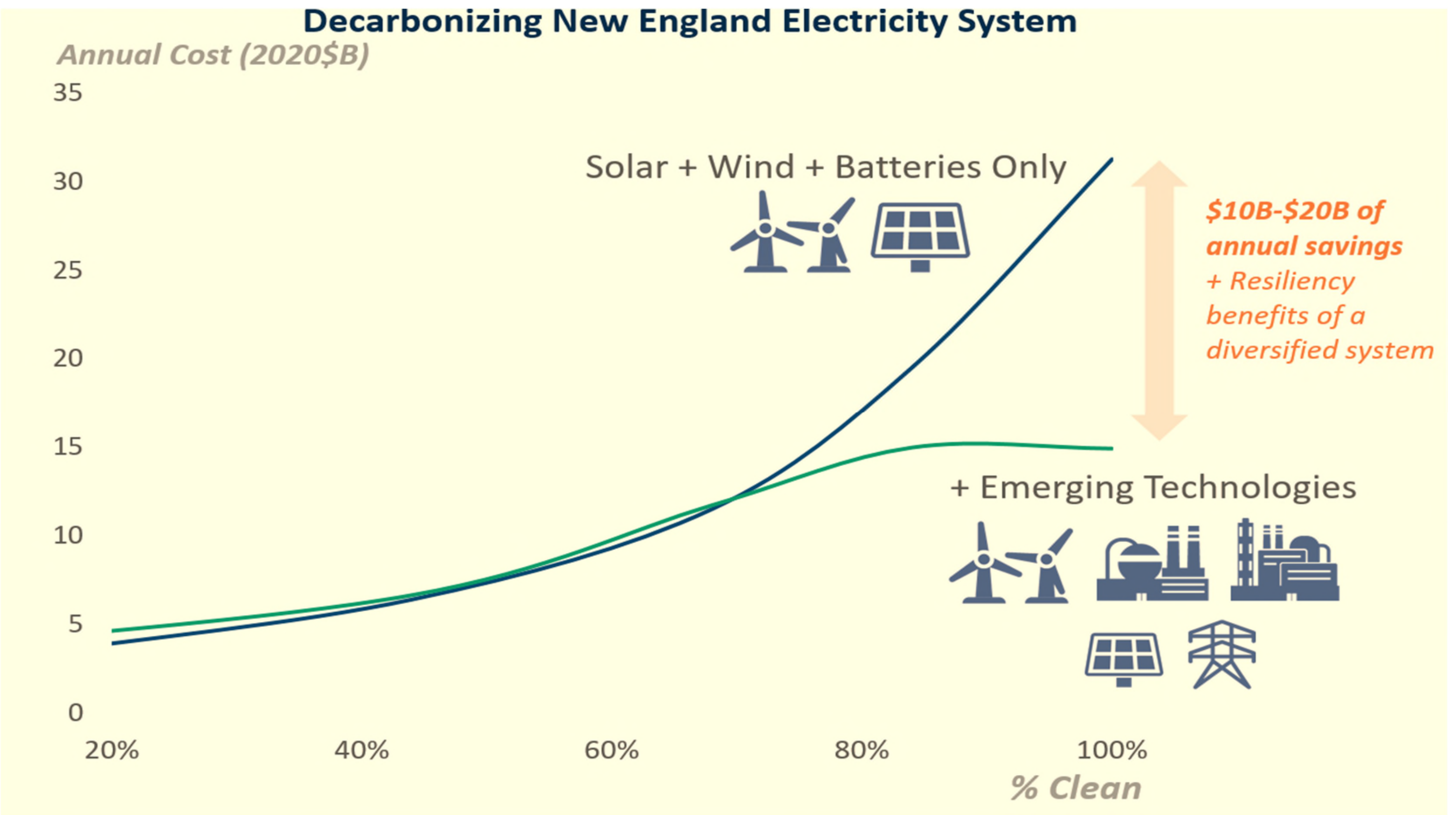
- Strong performance in “E”, “S” and “G”
- Articulating our path to net carbon neutral before 2050
- 25% of Executive compensation based on ESG performance

Kate Chisholm

Senior Vice President,
Planning, Stakeholder Relations and Chief Sustainability Officer

Natural Gas: necessary long-term role in power

- **Sustainable** – enables the penetration of more renewables
- **Flexible** – dispatchable when you need it (availability >90%); offline when you don't
- **Power Dense** – can provide 80 MW/acre
- **Decarbonizable** – with carbon conversion and hydrogen
- **Affordable** – keeping costs of decarbonization lower for consumers



Source: Brattle Group,
"The Emerging Value of CCUS For Utilities", August 2020

Capital Power major carbon capture initiatives

2007 to 2017
Participated with Canadian Clean Power Coalition (CCPC) studies on Carbon Capture Options

2008
Confidential Project for Hydrogen/Power production from coal feed stock with Carbon Capture

2008 to 2009
Design, Engineering and Cost Estimate for Genesee 4; 200 MW coal-fired power plant with 90% carbon capture (1million ton). Subsequently Carbon Capture Facility was re-configured for Genesee 3 retrofit.

2009 to 2012
Front End Engineering and Design (FEED) using Integrated Gasification Combined Cycle (IGCC) technology for Genesee expansion, 250 MW capacity and 1million ton capture

2009 to 2012
Partnered with Project Pioneer (1million ton) for CCS retrofit at Keephills 3 with Trans-Alta

2017
Participating in Cosia Carbon X Prize for developing carbon products from slip NGCC flue gas stream at Shepard Energy Center.
Participating in C2CNT Pilot Project for CO2 conversion to Carbon Nanotubes.

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Capital Power's (R)Evolution

2009 to Today

- Genesee efficiency program - 12%↓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 to 2024

- Complete repowering and off coal
- Invest in Renewables, Strategic NG
- Carbon Conversion: C2CNT and Beyond
- Technology Research/Collaboration
- Pilot/demo renewables + storage project

2024 – 2030

- Expand CCU
- Pilot/Demo Hydrogen project

2030 – 2050

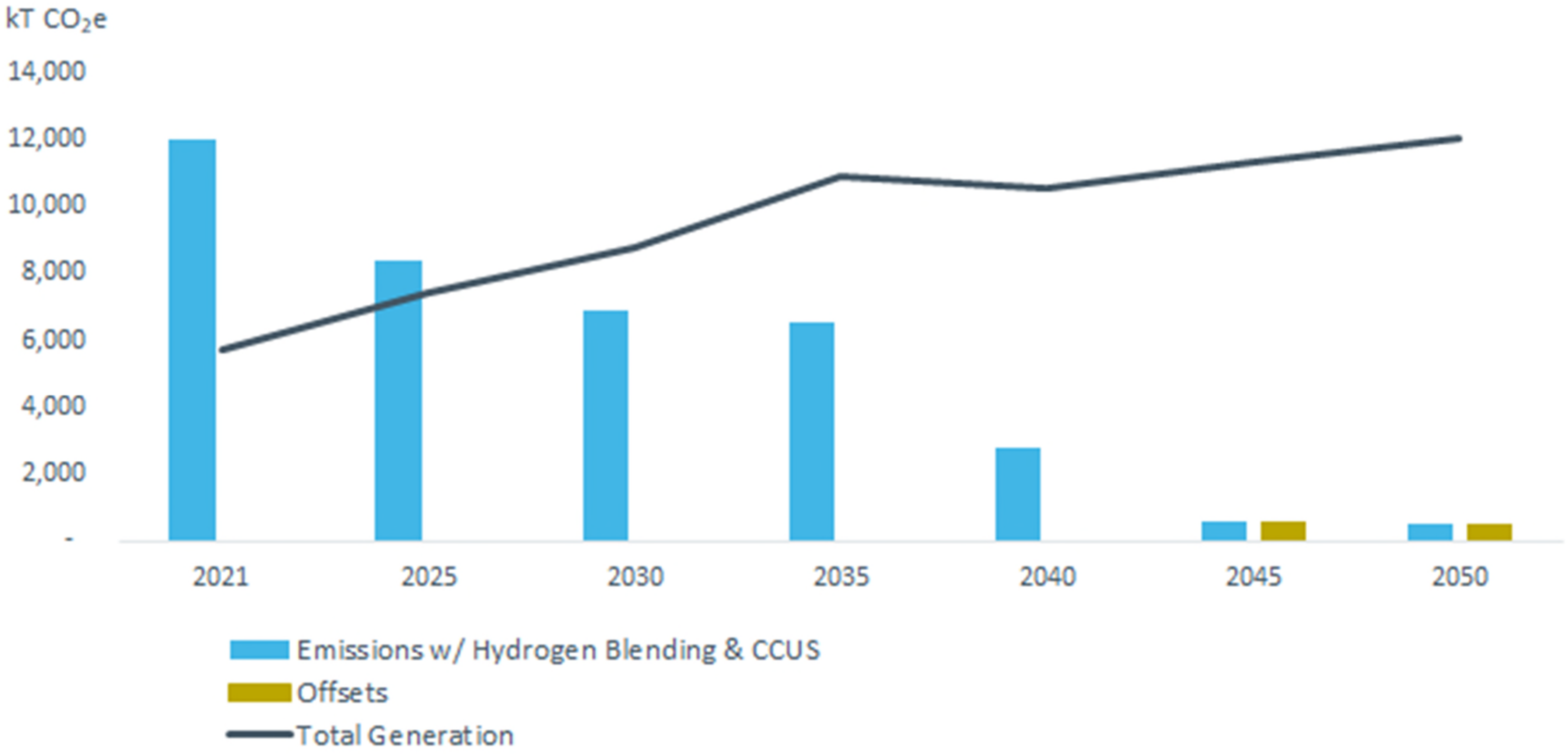
- Carbon Neutrality via physical solutions on NG assets and portfolio "offsets"
- Physical solutions on NG assets and portfolio "offsets"
- Renewables + Storage as Baseload

2050 – 2070

- Physical Decarbonization

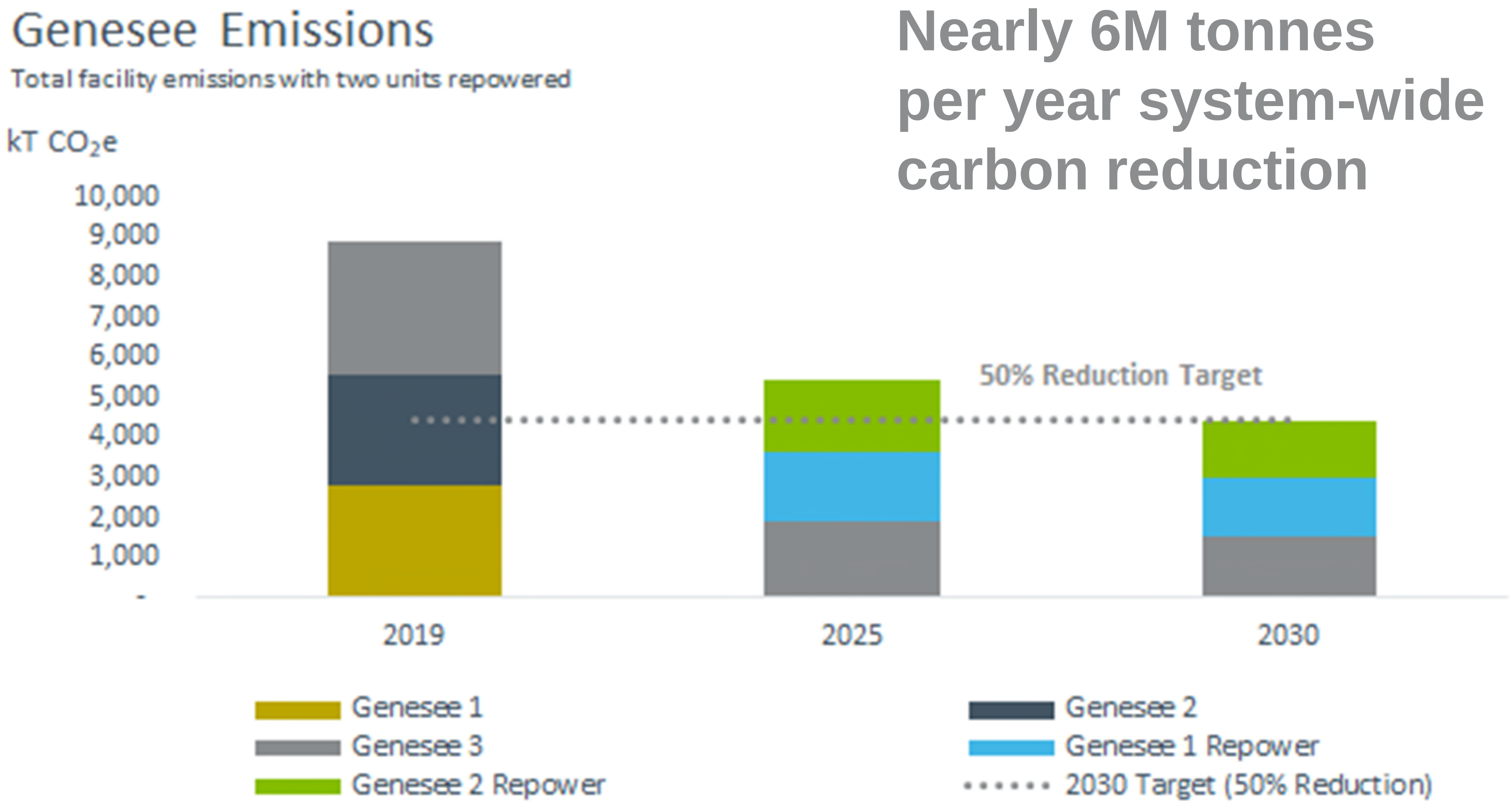
Pathway to net carbon neutral

- Renewables with storage
- Deploying carbon conversion and hydrogen blending at thermal facilities
- Limited offsets used



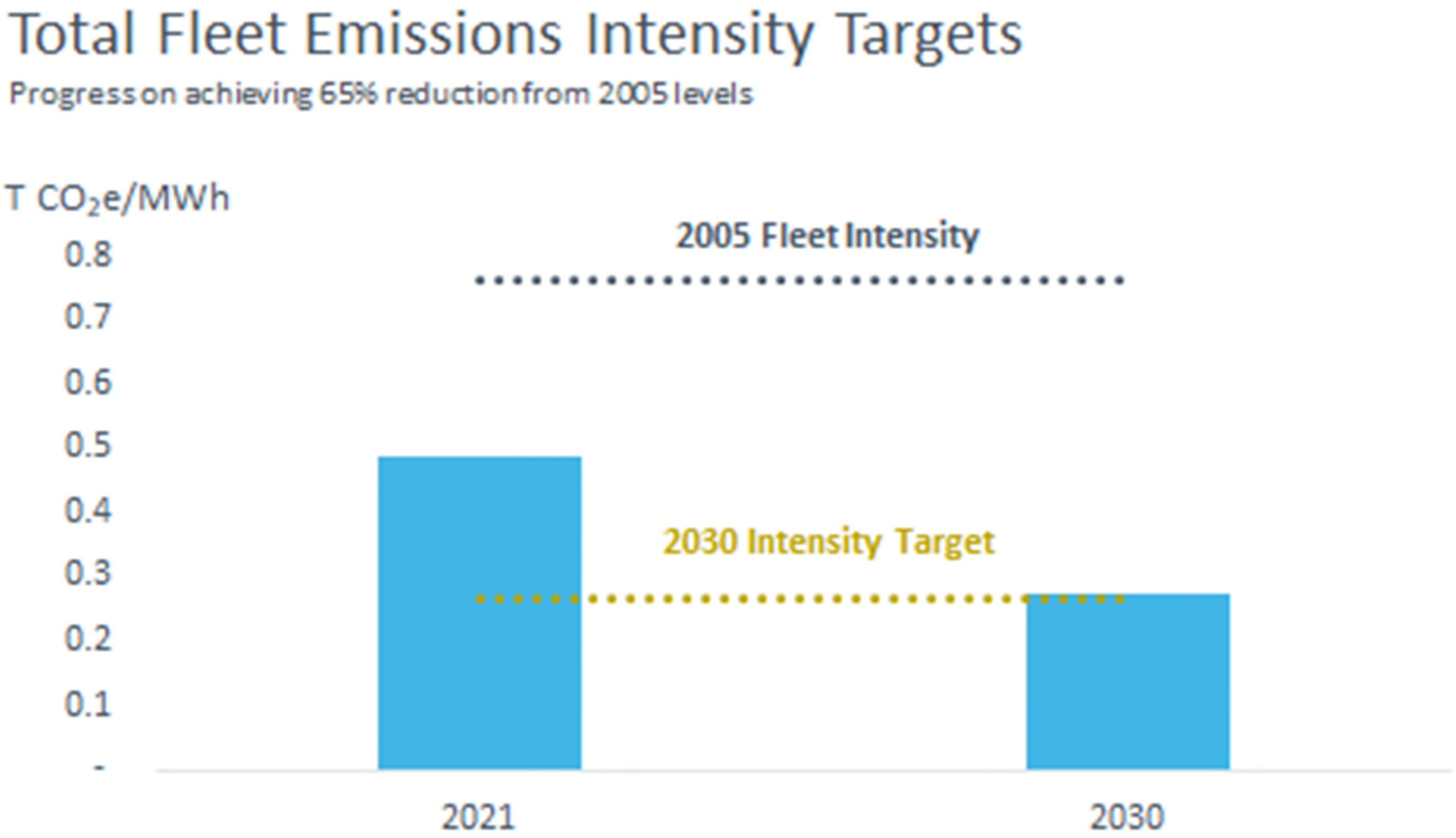
Genesee off coal in 2023 – 6 years early

50% carbon reduction by 2030 from repowering



Nearly 6M tonnes per year system-wide carbon reduction

65% GHG emissions intensity reduction across the fleet by 2030



Accelerating ESG initiatives

Environmental

- Net carbon neutral before 2050
- Genesee repowering
- Renewables development
- Natural gas with carbon conversion and/or hydrogen
- A- CDP climate change score

✓ Sustainable sourcing roadmap on track to roll out in 2021

✓ Water strategy on track to roll out in 2021

Social

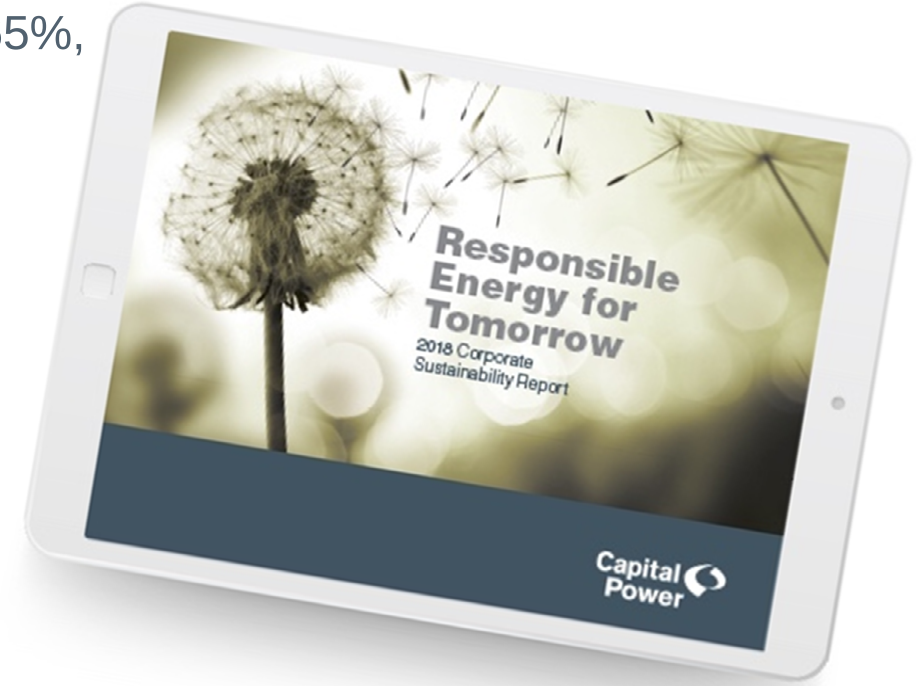
- Optimal workplace of the future to reflect key learnings and benefits from COVID-19
- Increased community investment funding in 2021; building off robust and generous response to COVID-19 relief efforts
- Indigenous training, employment and economic opportunities at Canadian wind facilities through new Vestas agreement
- Transitional support for employees at Roxboro, Southport, Genesee
- Committed to Equal by 30 – supporting gender equity in our industry

Governance

- 25% of Executive short-term incentive pay linked to meeting ESG targets
- 44% of Board and 43% of Executive female versus 30% target
- Executive short-term incentive linked to presentation of diverse candidates for corporate and plant positions
- 2021 review to identify and minimize institutional bias in policies, procedures and results
- World's Most Ethical Companies award 2 years running - only utility and 1 of 3 Canadian companies

On track to meet our sustainability targets

- Achieve net carbon neutral by 2050
- Construct all new natural gas generation units to be carbon capture and/or hydrogen-ready
- ✓ Reduce CO_2 emissions at Genesee by 50% by 2030 from 2005 levels
- Reduce CO_2 emissions by 10% and our emission intensity by 65%, in 2030 from 2005 levels
- ✓ Invest in carbon capture and utilization technology to help us achieve net carbon neutrality before 2050 and eventually physically decarbonize our natural gas fleet (ongoing)
- Complete the Genesee Carbon Conversion Centre by Q4 2021
- Enhanced sustainable sourcing plan (2021)
- Enhanced water management plan (2021)



Maximizing asset value

- **Operational excellence and resiliency**
- **Optimization and innovation**
- **Building a low carbon future**

Darcy Trufyn

Senior Vice President,
Operations, Engineering and Construction

Operational facilities

6,491
megawatts

28
facilities

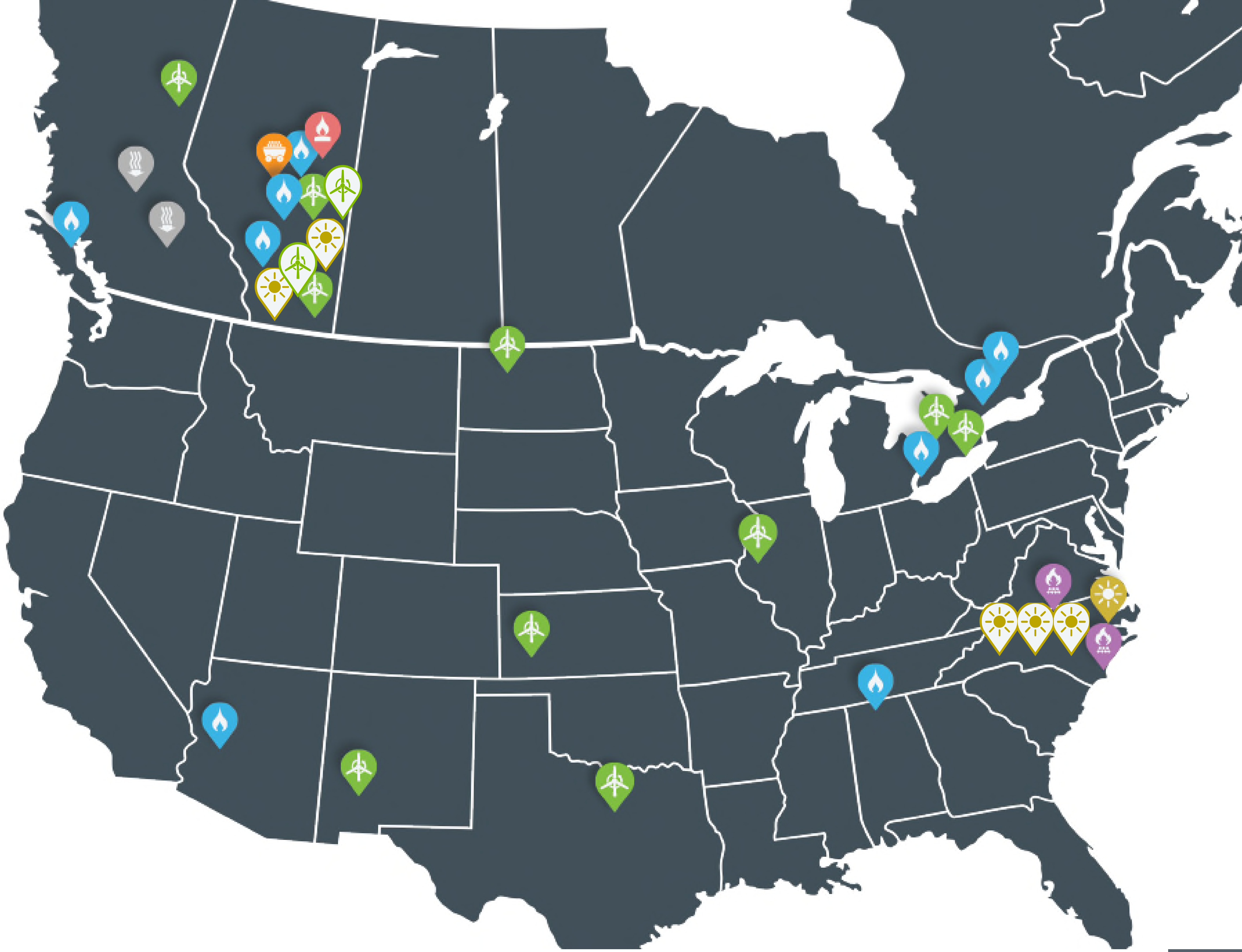
95%
plant availability

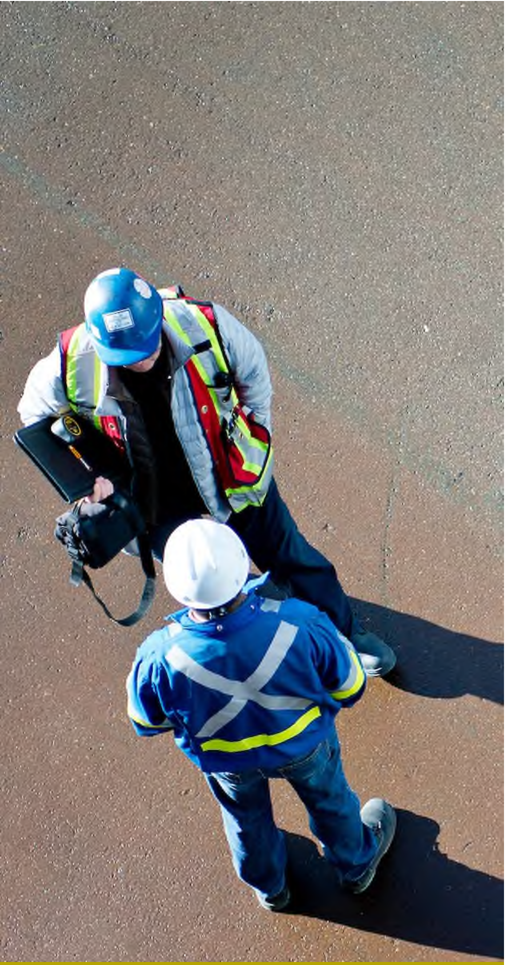
In Operation

Natural Gas | Coal | Solar | Wind | Waste Heat | Solid Fuel | Landfill Gas

Under construction and in Advanced Development

Solar | Wind





Sustained excellence and resiliency in operations

Fleet performance

- Strong 2020 availability: 94% forecast versus target of 93%
- Target 2021 availability at 93%
- Fleet availability has averaged 95% since 2014

Asset Improvement

- Decatur hybrid rotor #2 installed, improving heat rate and adding 30 MW
- 3rd evaporation pond built at Arlington increasing plant capacity factor capability to 70%
- Main incoming gas line at Genesee completed increasing overall current gas capability and providing 100% of all gas needs for future repowering
- Major control system (DCS) improvements at Decatur, Arlington and Corporate plus numerous cyber security enhancements
- Numerous operational improvements at renewables facilities
- Remote operations of all simple cycle facilities

Sustained excellence and resiliency in operations

Company COVID response

- Implemented pandemic plan in March including protocols and PPE requirements
- Essential plant staff routines/schedules altered, and non-essential staff work remote
- Evolved COVID philosophy to a sustainable state

Plant COVID response

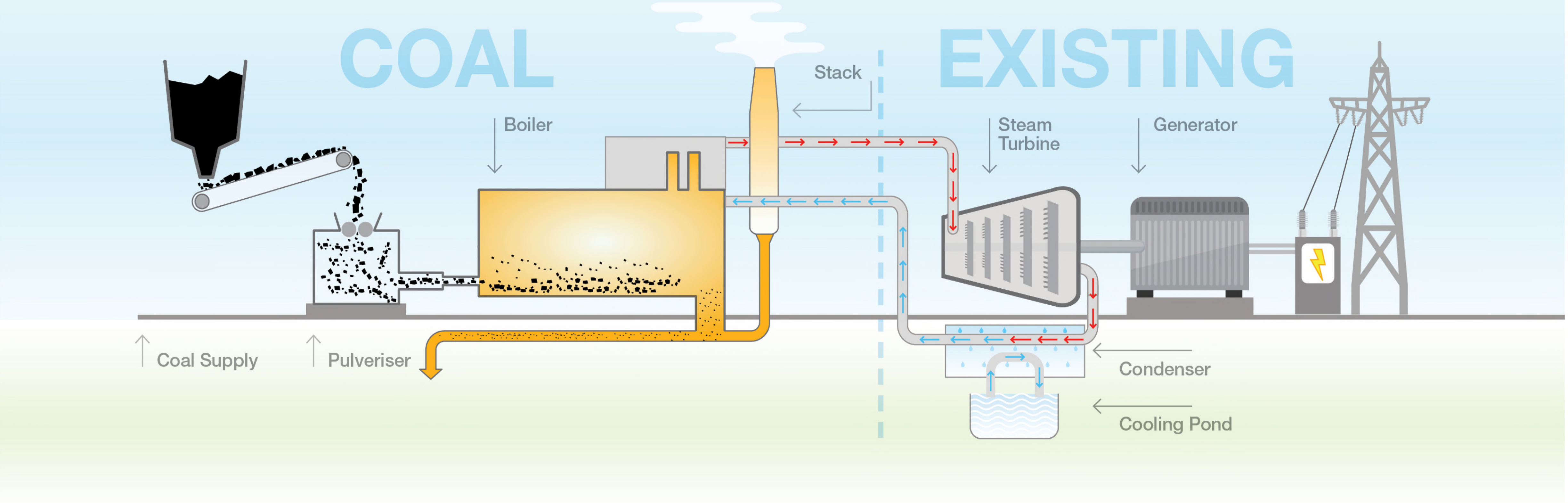
- Completed required sustaining capital and maintenance work
- Completed planned outages at 7 thermal facilities and at 9 renewables facility
- Initially deferred non-essential maintenance and construction work
- Advanced remote operations capability at all simple cycle facilities established
- Genesee outages deferred because of large staffing requirements and excellent unit condition

To date: no COVID related impact to operations at any plant and no transmission of infection at any facility

Genesee repowering of units 1 and 2

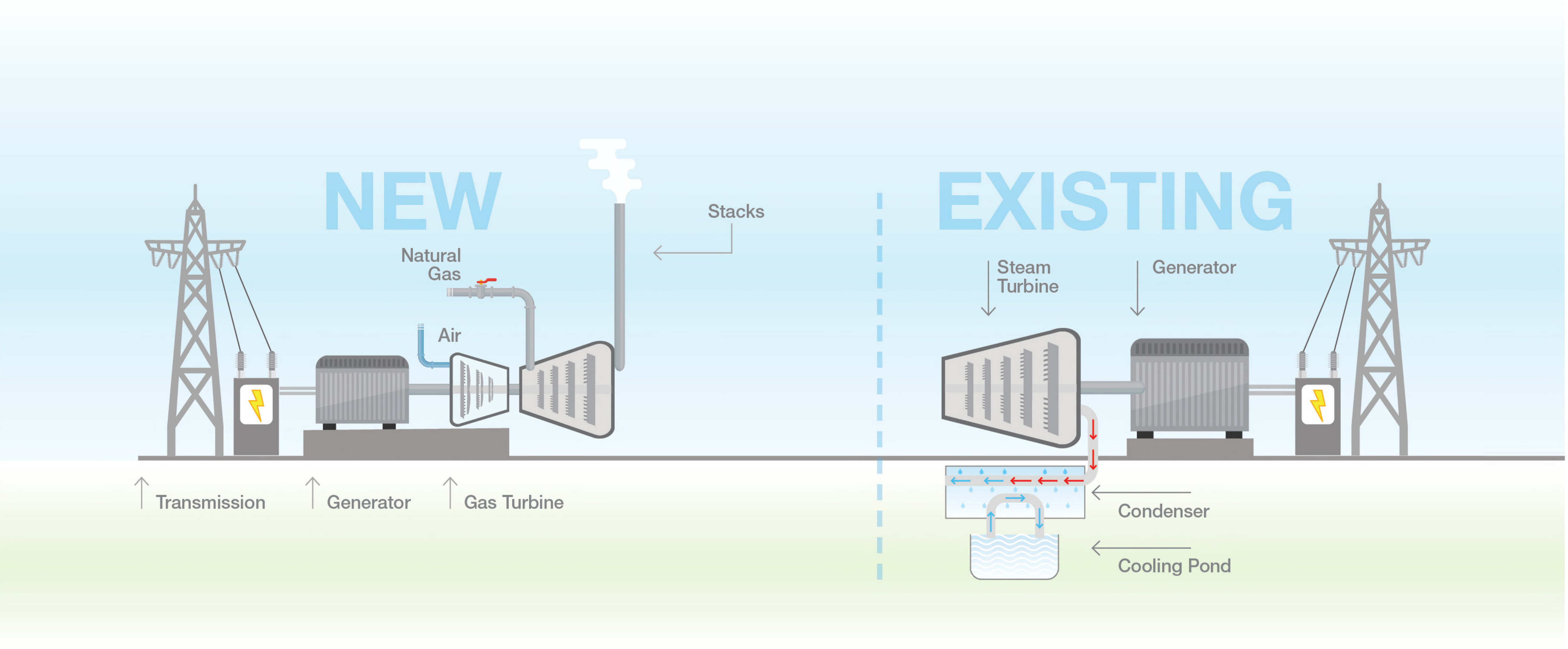
- Total cost $997 million
- 2 X 680 MW = 1,360 MW (net)
- No power interruption with staged construction
- Heat rate at 6600 - 6700 kj/kWh; most efficient combined cycle plant in Canada
- Utilizes latest MHI J AC Class technology
- Includes upgraded steam turbines
- 30% hydrogen ready at COD; upgradable to 95% post COD at minimal cost
- Includes provisions for future carbon capture
- ~ 900 people years of construction work with a peak forecast of ~ 500 people
- Dual-fuel upgrades no longer required on G1 and G2

Genesee repowering of units 1 and 2



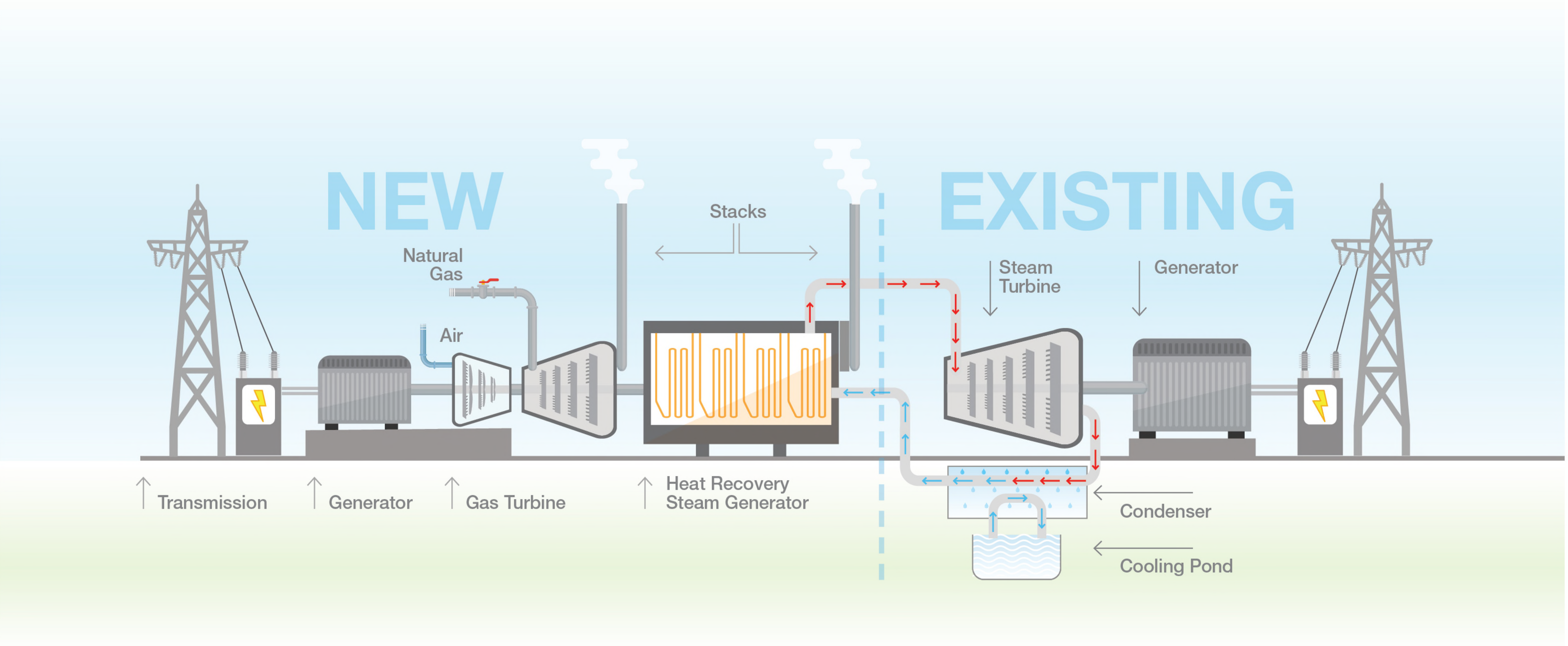
Optimizing project cost through existing equipment and infrastructure

Genesee repowering of units 1 and 2



Optimizing project cost through existing equipment and infrastructure

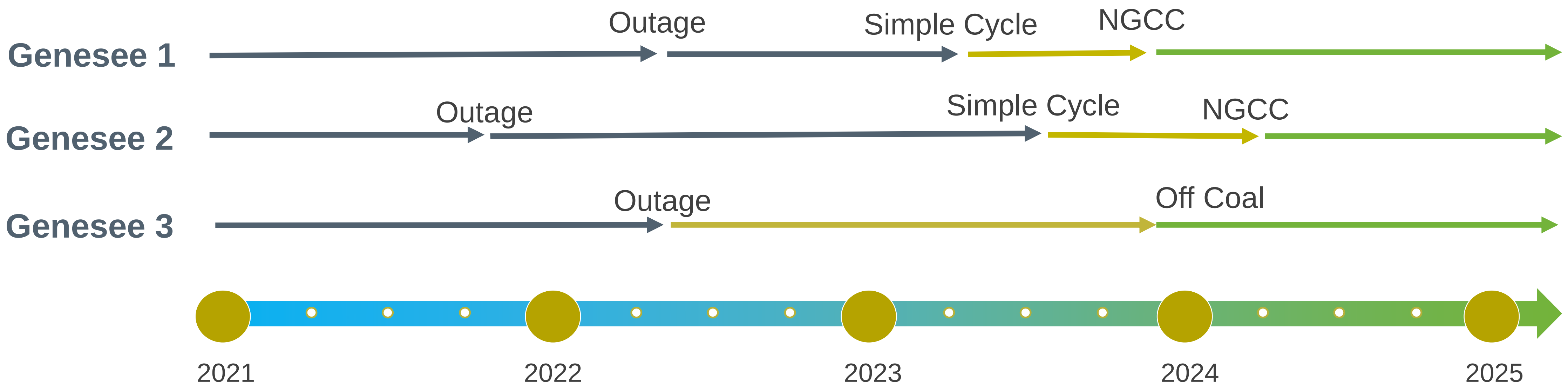
Genesee repowering of units 1 and 2



Optimizing project cost through existing equipment and infrastructure

Genesee repowering of units 1 and 2

Genesee repowering schedule



- Following gas conversion and repowering projects, physical CO_2 emissions at the Genesee facility will be approximately 3.4M tonnes per year lower than 2019 emission levels
- Ongoing support provided for the Genesee community and employees as Genesee transitions to a natural gas facility
- Outages for G1 and G2 optimized to reflect repowering/off coal
- Outage for G3 includes fuel conversion to natural gas

Building a low carbon future with renewables growth

Project	Capacity	Location	Construction Cost	Expected COD
Whitla Wind Phase 2	97 MW	Medicine Hat, Alberta	$165M	Q4 2021
Whitla Wind Phase 3	54 MW	Medicine Hat, Alberta	$92M	Q4 2021
Strathmore Solar	40.5 MW	Strathmore, Alberta	$53M*	Early 2022
Enchant Solar	75 MW	Taber, Alberta	$95M*	Q4 2022
Bear Branch Solar	35 MW	Stokes County, North Carolina	$60M	Q4 2022
Hornet Solar	75 MW	Gaston and Lincoln Counties, North Carolina	$118M	Q4 2022
Hunter's Cover Solar	50 MW	Rutherford County, North Carolina	$82M	Q4 2022
Total New Generation		426.5 MW	Total Cost	$665M

*Represents mid-point of construction cost range

Building a low-carbon future

- Wind development: evolved from a commodity product to technological solution
- In-house construction and engineering expertise provides competitive advantage and facilitates continuous improvement
- Whitla 2 and 3 incorporate and further improve on the strategies used in Whitla 1
- Wind asset optimization: Renewables Operations Center, 9 new favorable long term service agreements, blade repair, wind capture improvements, etc.
- Solar development: 2020 development breakthrough as we move to technological solutions for solar

Ops 2030 generates $50M in annual EBITDA by 2030

Creating the sustainable plant of the future through technology and innovation

Continuous Improvement

- Wind turbine upgrades
- Start-up optimization software
- Fleetwide DCS upgrades
- Energy storage

Data Analytics

- Deployment of Historian with enhanced capabilities
- Advanced Pattern Recognition
- Implement machine learning technology to enhance system security
- Optimizing plant performance

Automation

- Mobility in operator rounds
- Worker protection system automation
- Power BI for reporting

Digital Tools

- 3D printing and scanning
- Acoustic leak detection
- Expanded use of drones and development of internal program and expertise
- Continuous monitoring of generator health
- Remote borescope capability deployment

Flexible and Remote Operation

- Simple cycle remote capability
- Renewables Monitoring and Diagnostics Centre
- Remote digital worker

Highlights

- Sustained operational excellence through challenging conditions
- Leveraging existing infrastructure and equipment to optimize Genesee repowering
- Significant renewables growth and expanding our technology mix
- Innovation and optimization continues through Ops 2030

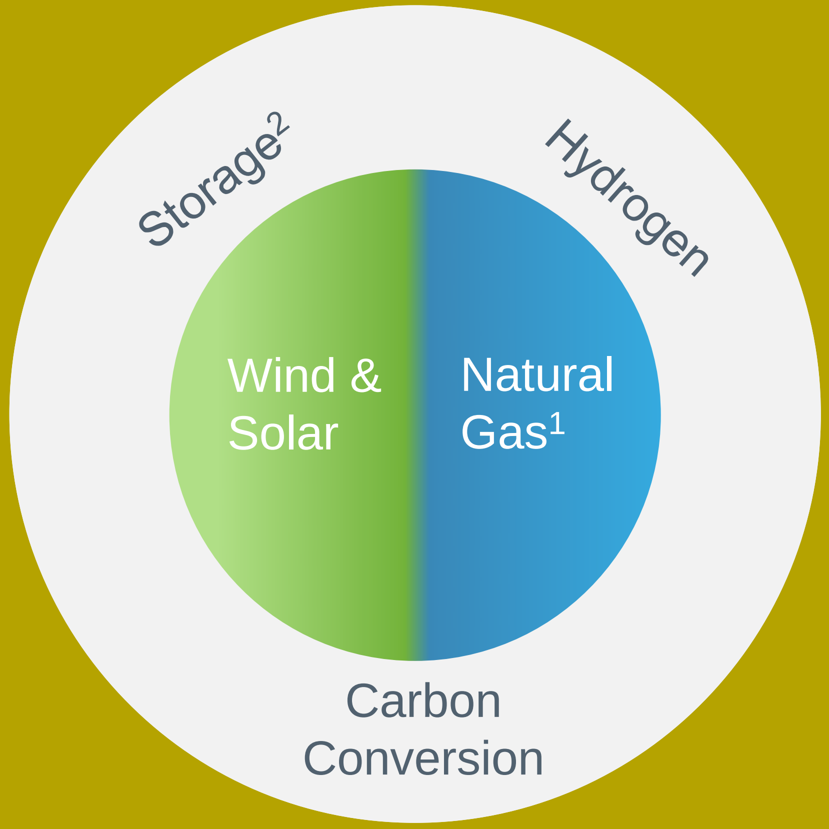
Capital Power is building a low carbon future!

Delivering growth

- Transparent path to 10-12% total shareholder return
- Target markets support $500M annual capital investment
- Growth strategy aligns with our sustainability goals

Bryan DeNeve
Senior Vice President,
Business Development and Commercial Services

Accelerating our technology strategy



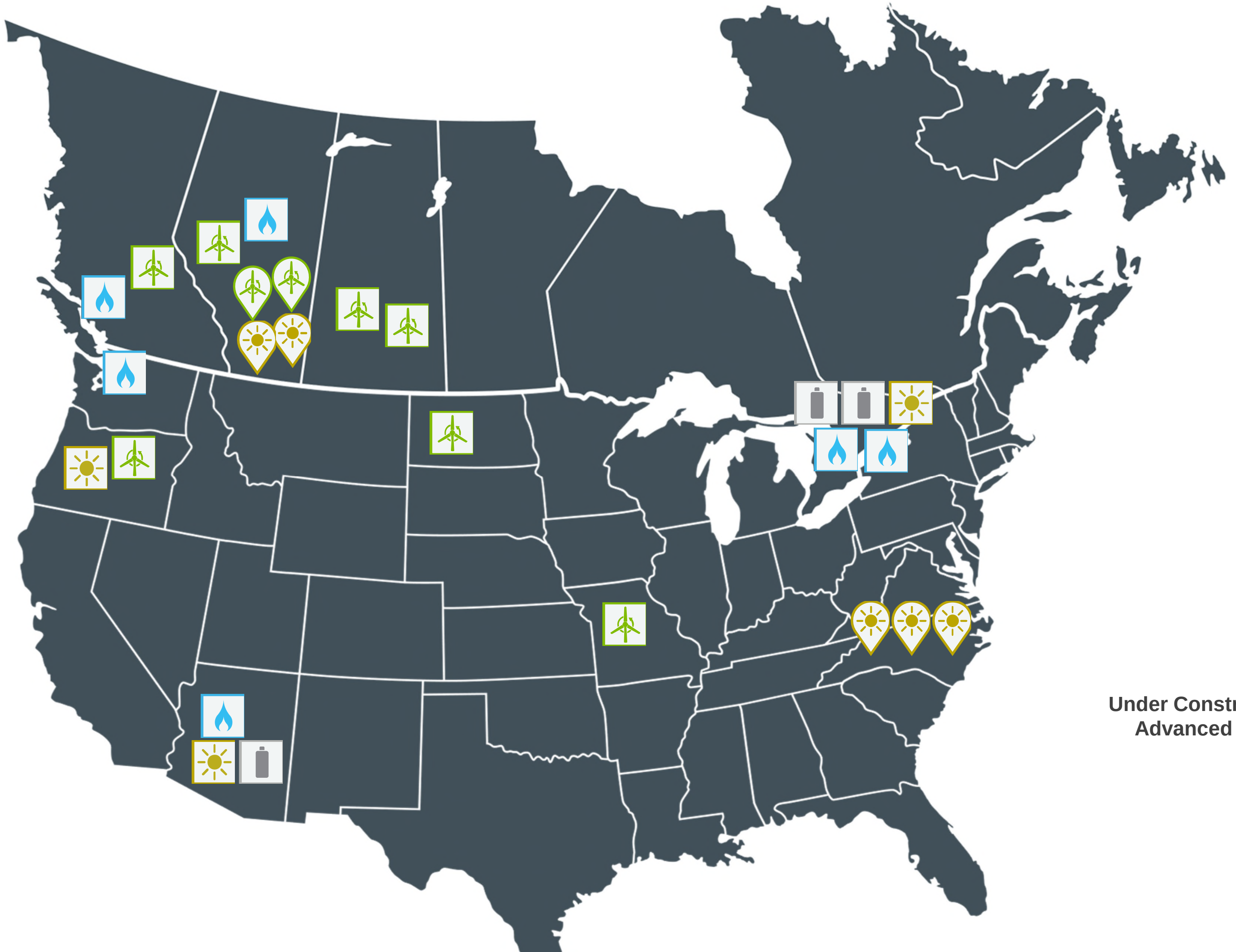
[1] As the technologies become economically feasible, emissions will be reduced or eliminated via CCUS or an increasing percentage of hydrogen blending.

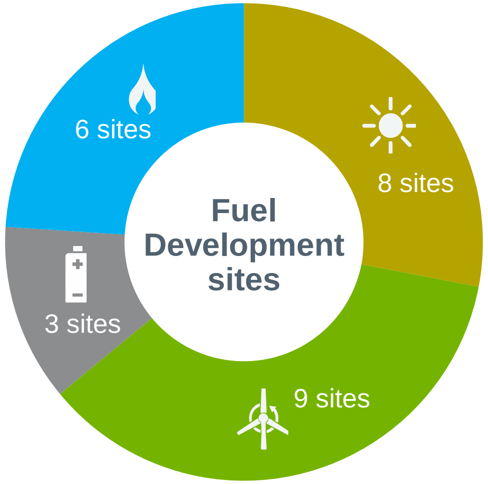
[2] Storage includes physical storage such as pumped hydro as well as battery storage.

Growing our business to net carbon neutral

	Today	2024 and beyond
Investing in emissions free renewables	Building and acquiring facilities in Canada and the U.S.	Integration of storage technologies
Investing in critical natural gas generation	Acquiring key facilities in Canada and the U.S.	Reduce emissions profile through carbon utilization and be hydrogen ready
Transitioning heritage coal generation to natural gas	Repower and move to 100% natural gas capability	

Dynamic pipeline supports resilient and responsible growth





2021 Growth Target:
Invest $500M

Under Construction and in Advanced Development

Future Development

Natural Gas Solar Wind Storage

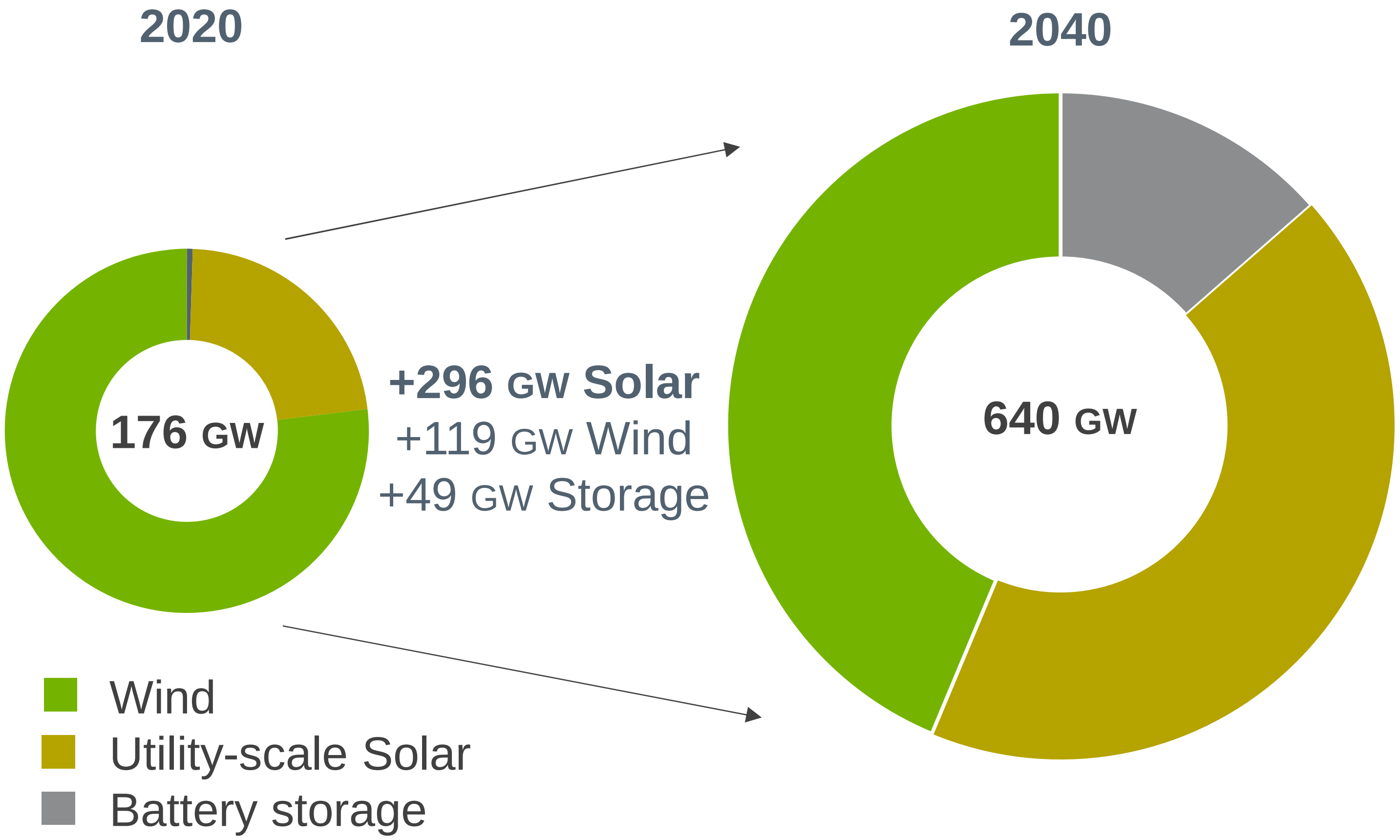
Solar
8 sites
Potential: 360 MW
Committed: 276 MW
Total: 636 MW

Wind
9 sites
Potential: 1,129 MW
Committed: 151 MW
Total: 1,280 MW

Storage
3 sites
Potential: TBD

Gas
6 sites
Potential: 1,700 MW

U.S. on pace for 23 GW of wind installations in 2020 smashing previous record by 10 GW



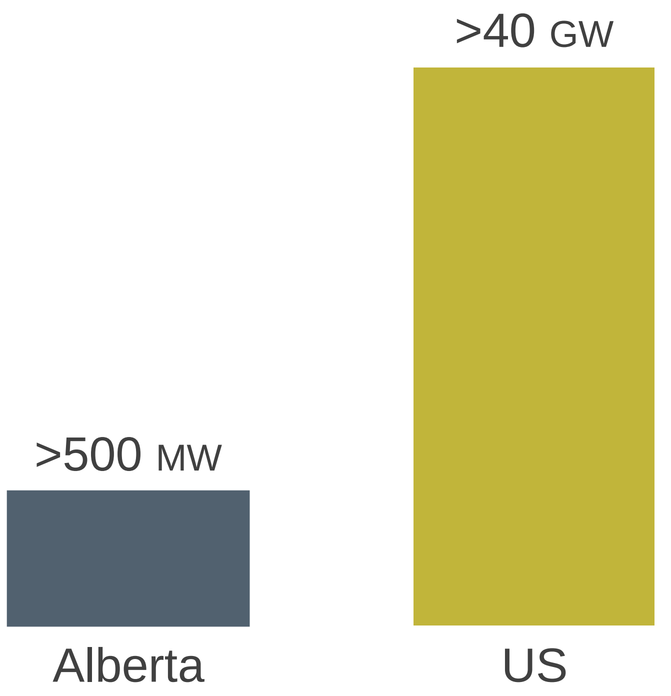
Growth Drivers:

- Decline in cost
- Increased efficiency
- Demand from corporates
- Government policies
- Storage

Success in solar more than **doubles** our growth opportunities

Source: Bloomberg New Energy Finance, New Energy Outlook 2020

ESG priorities drive surging corporate demand for renewables



Announced corporate PPAs*

100% renewable power targets

Before 2020: Apple, Google, Lego Group, Microsoft, Starbucks, TD Bank, VISA

By 2020: Etsy, Facebook, Goldman Sachs, JPMorgan Chase, Mastercard

By 2021: Lululemon athletica

By 2022: Morgan Stanley, Salesforce

By 2025: Amazon, Nike, TELUS, eBay, Johnson & Johnson, RBC

Increasingly ambitious ESG targets

Source: Business Renewables Center Canada and Bloomberg New Energy Finance Corporate PPA Deal Tracker: October 2020

Growth in U.S. renewables

Increasing carbon free generation to reach net carbon neutral before 2050

Cardinal Point Wind

150 MW
12 Year Power Contract for 85% of generation
15 Year REC Contract

Buckthorn Wind

100.5 MW
15 Year weighted average remaining contract life

Bear Branch Solar

35 MW
20 Year Contract
Q4 2022 COD

Hornet Solar

75 MW
20 Year Contract
Q4 2022 COD

Hunter's Cove Solar

50 MW
20 Year Contract
Q4 2022 COD

Growth in Alberta renewables

Increasing carbon free generation to reach net carbon neutral before 2050

Whitla 2 Wind

97 MW

Contracting available

Q4 2021 COD

Whitla 3 Wind

54 MW

Contracting Available

Q4 2021 COD

Strathmore Solar

40.5 MW

25 Year Contract

Q1 2022 COD

Enchant Solar

75 MW

Contracting Available

Q4 2022 COD

Securing long term PPAs delivers stable cash flows

Strathmore

- Long Term 25-year PPA
- 40.5 MW, 100% output
- Bundled energy and environmental attributes
- Investment grade counterparty
- Shows that we maintain our competitive advantage in Alberta

Duke Offtake

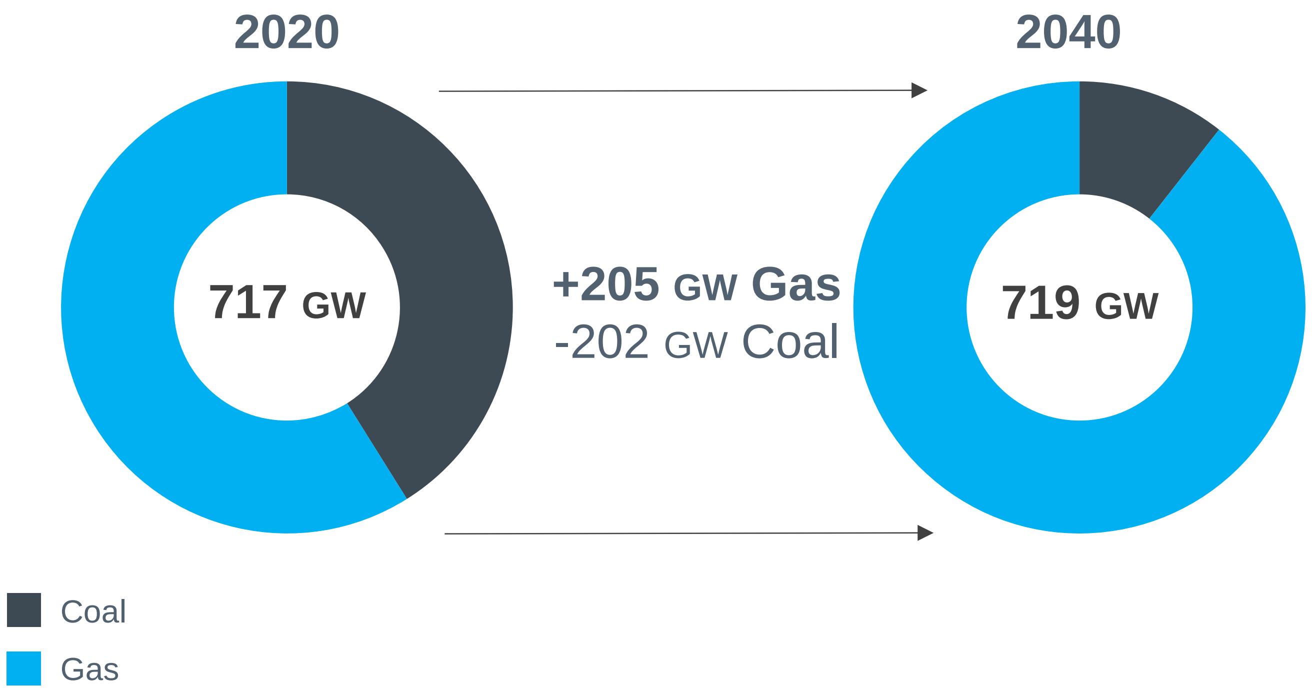
- Long Term 20-year PPA
- 160 MW, 100% output
- Bundled energy and environmental attributes
- Investment grade counterparty
- Shows that we are competitive in the US

But we aren’t done. Expect more contracts to come.

Gas generation vital for reliability and flexibility

Growth Drivers:
- Coal & nuclear retirements
- Renewables proliferation
- Low gas prices

Value of incumbent assets:
- High barrier to entry
- Strategic placement
- Optimization potential



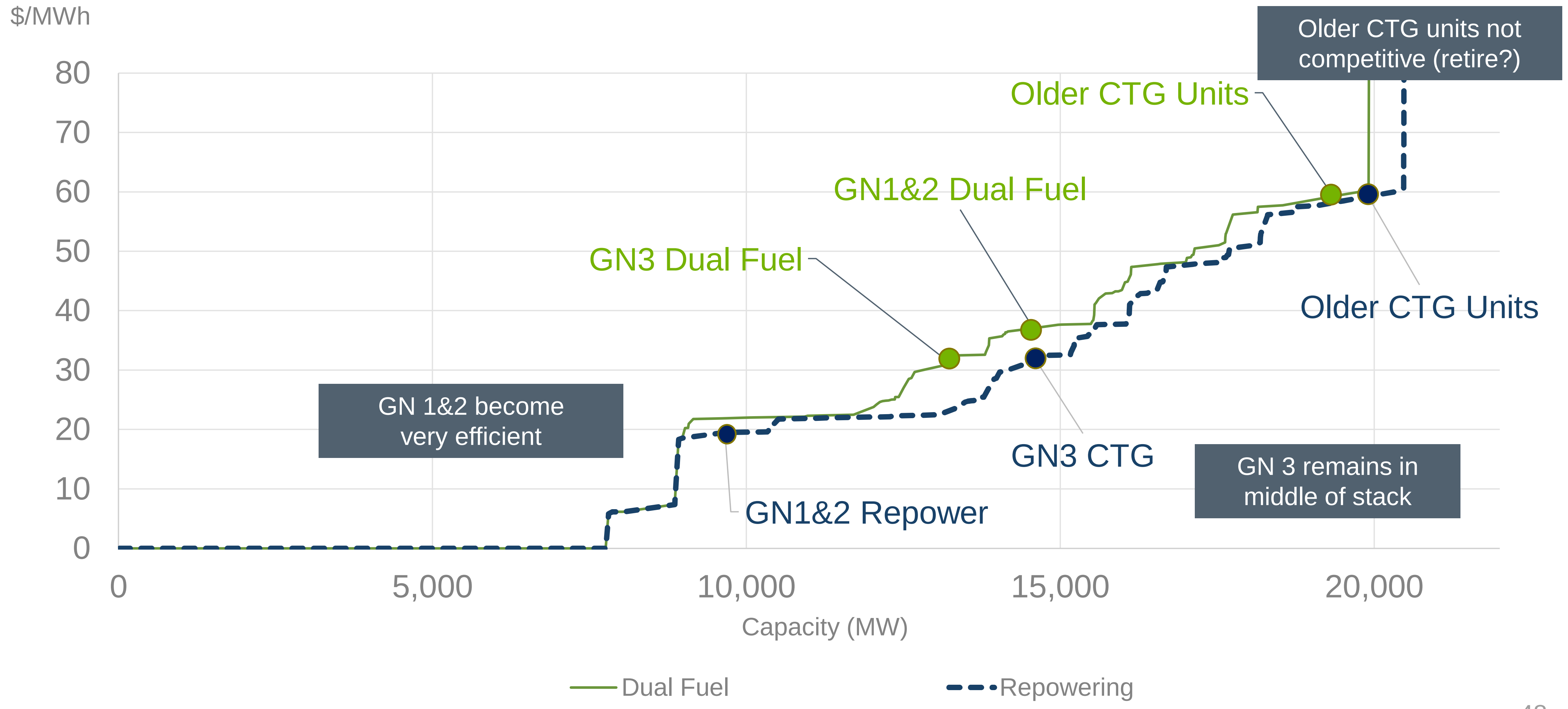
Source: Bloomberg New Energy Finance, New Energy Outlook 2020

Repowering Genesee delivers long term value

- Hydrogen utilization
- Carbon conversion ready
- Resiliency to carbon policy
- 20%+ levered returns

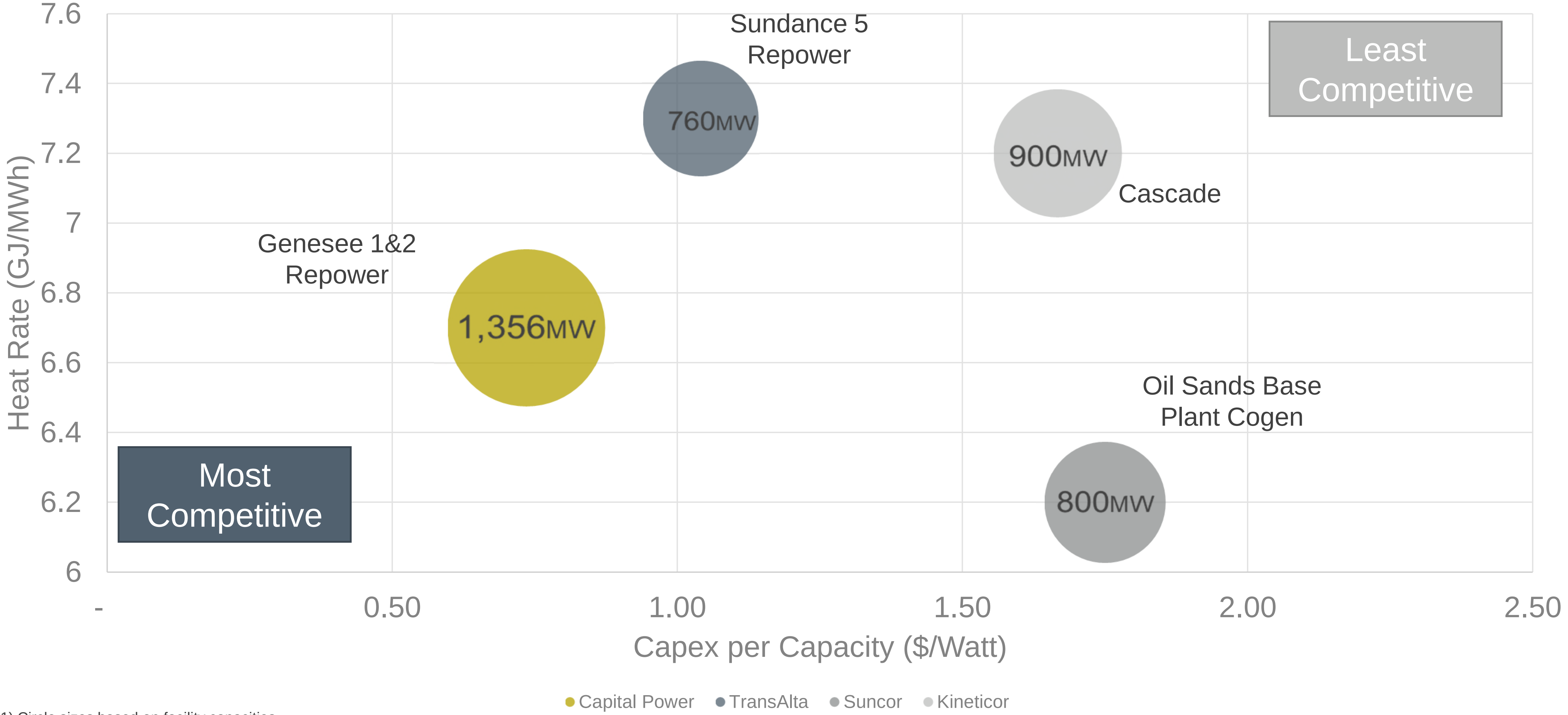
More competitive after repowering

Estimated variable cost merit order in 2025



Repowered Genesee most competitive new gas

Repowering is a game-changing investment



1) Circle sizes based on facility capacities.
2) Statistics from company websites and press releases

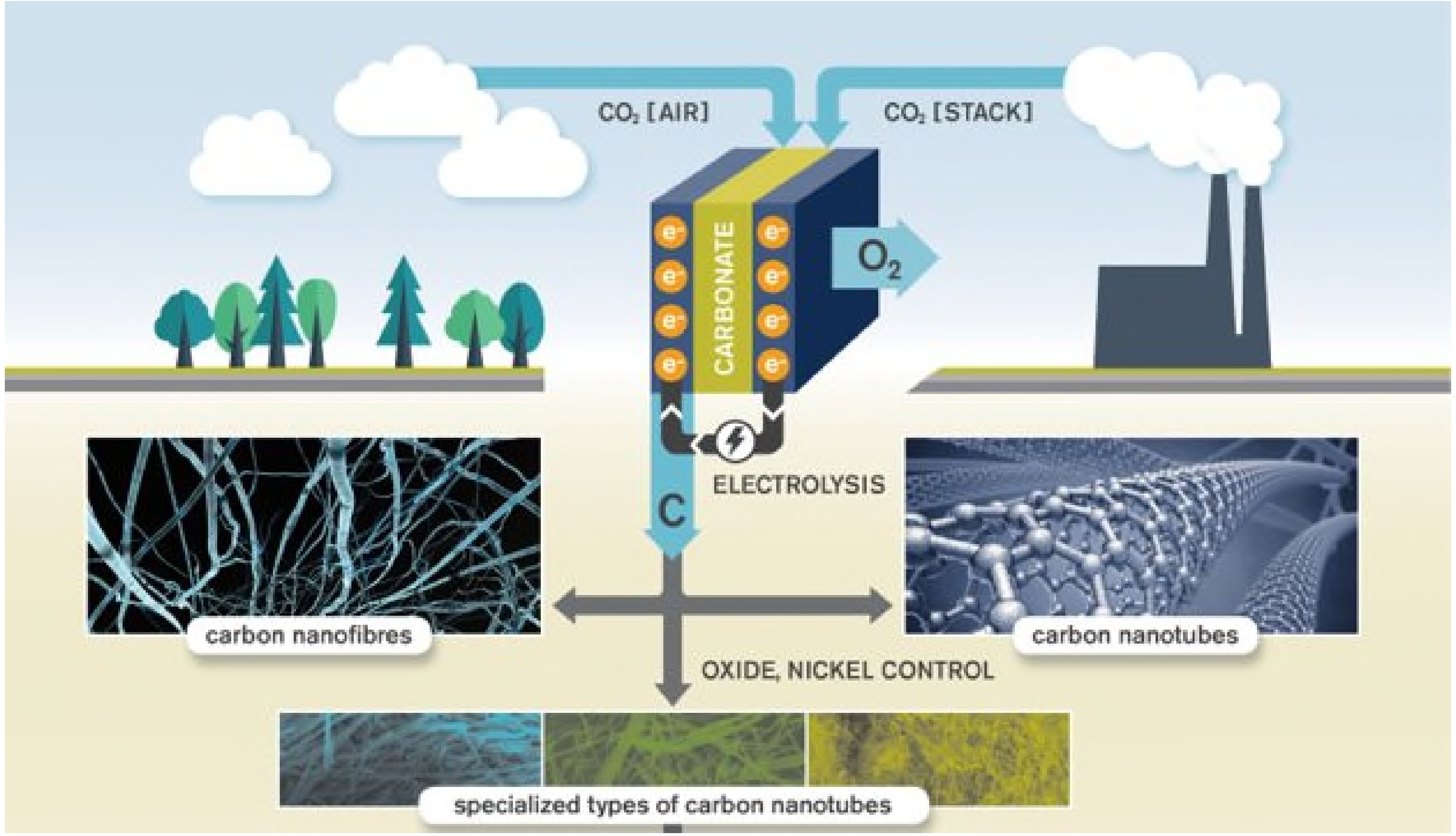
Sustainable advantages of the Genesee Site

- Bulk electrical transmission
- Proximity to industrial heartland
- Trunkline and caverns for storage
- Hydrogen ready
- Potential to create hydrogen onsite
- Carbon conversion ready
- Human capital for ingenuity

Potential to extend Genesee life beyond repowering and advance our 2050 net carbon neutral goal

Genesee Carbon Conversion Centre

World's largest carbon nanotube production facility



- Stronger cement
- Enhanced battery products
- More durable tires
- Tougher anti-corrosion products

Optimizing Decatur: upgrades and re-contracting add value

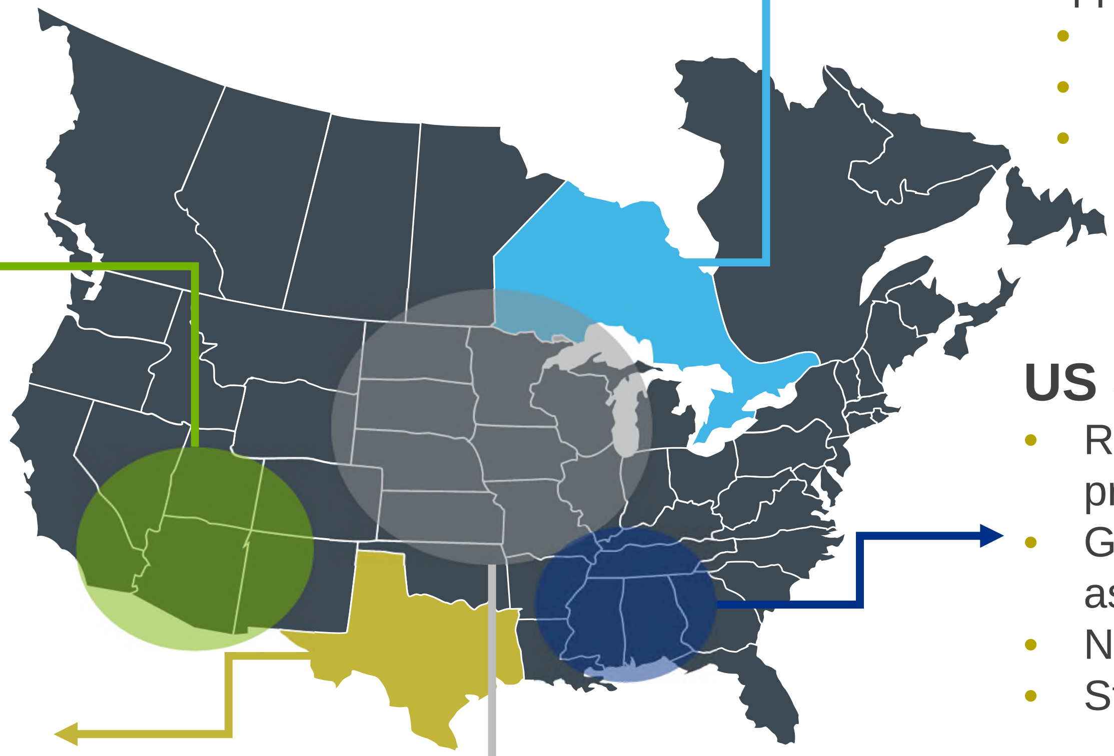
Mid-life contracted gas assets acquisition strategy validated

- 10-year tolling agreement extension to 2032
- 2 of 3 combustion turbine (CT) upgrades completed adding 60 MW of capacity
- Third CT to be upgraded in 2021 adding 30 MW of capacity
- Immediate payments for 30 MW of additional capacity
- Payments for further 79 MW to be part of updated interconnection agreement expected 2021

Markets outlook

US SW
- Strong load growth
- Coal retirements
- New-build gas moratorium
- Renewables buildout
- High potential for recontracting

ERCOT
- Healthy load growth
- Strong renewables buildout

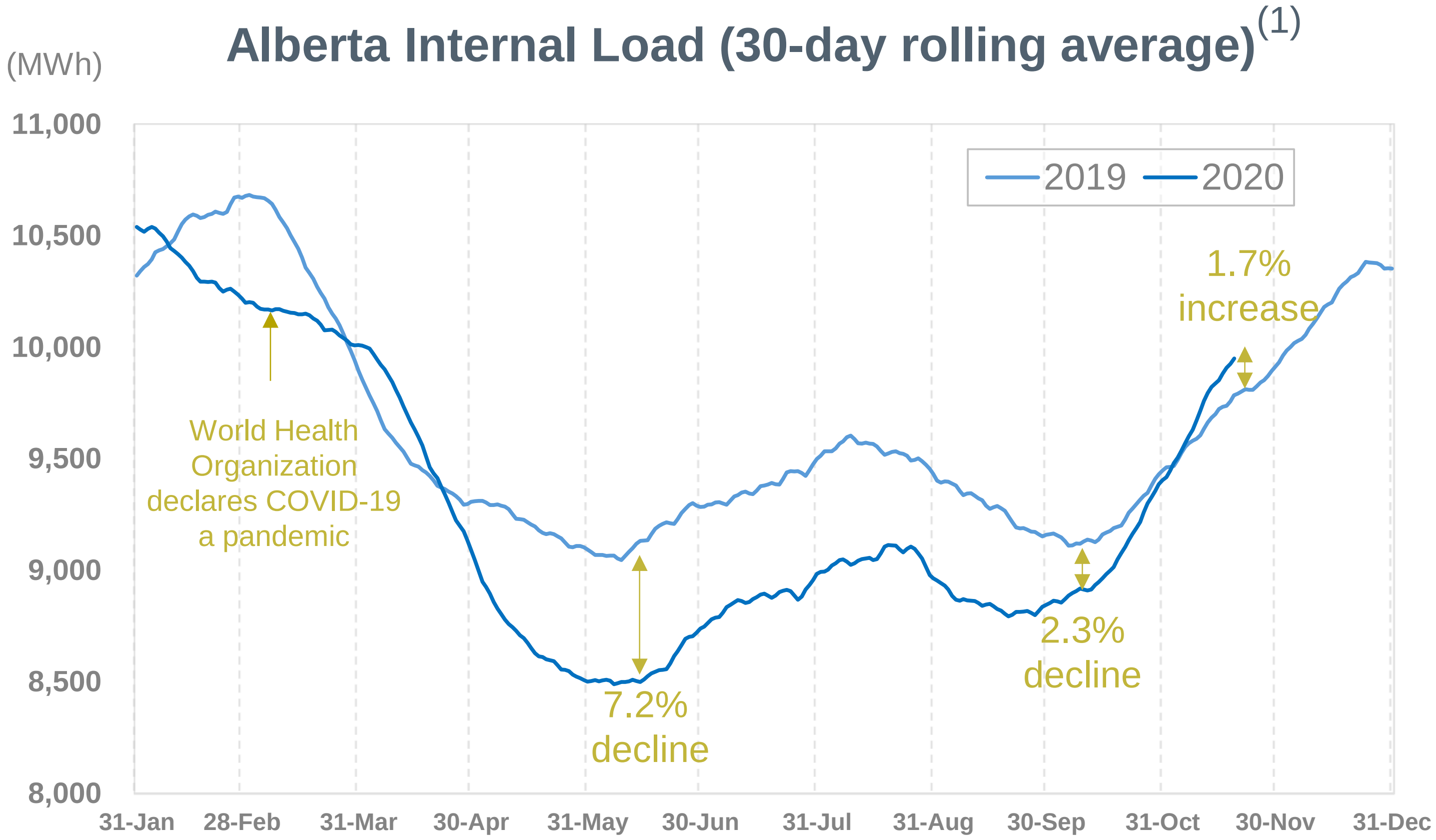


Ontario
- Load recovering
- Fully contracted portfolio
- High value for location and flexibility
- Supply shortfall in medium term
  - Electrification
  - Expiring contracts
  - Nuclear refurbishment/retirements

US SE
- Recontracting & capacity additions proves our thesis
- Gas capacity factors remain healthy as coal retires
- No wind resource
- Starting to see solar built

US Midwest
- Coal to gas in MISO
- Strong wind build out in MISO and SPP

Alberta power market – COVID and crude oil impact

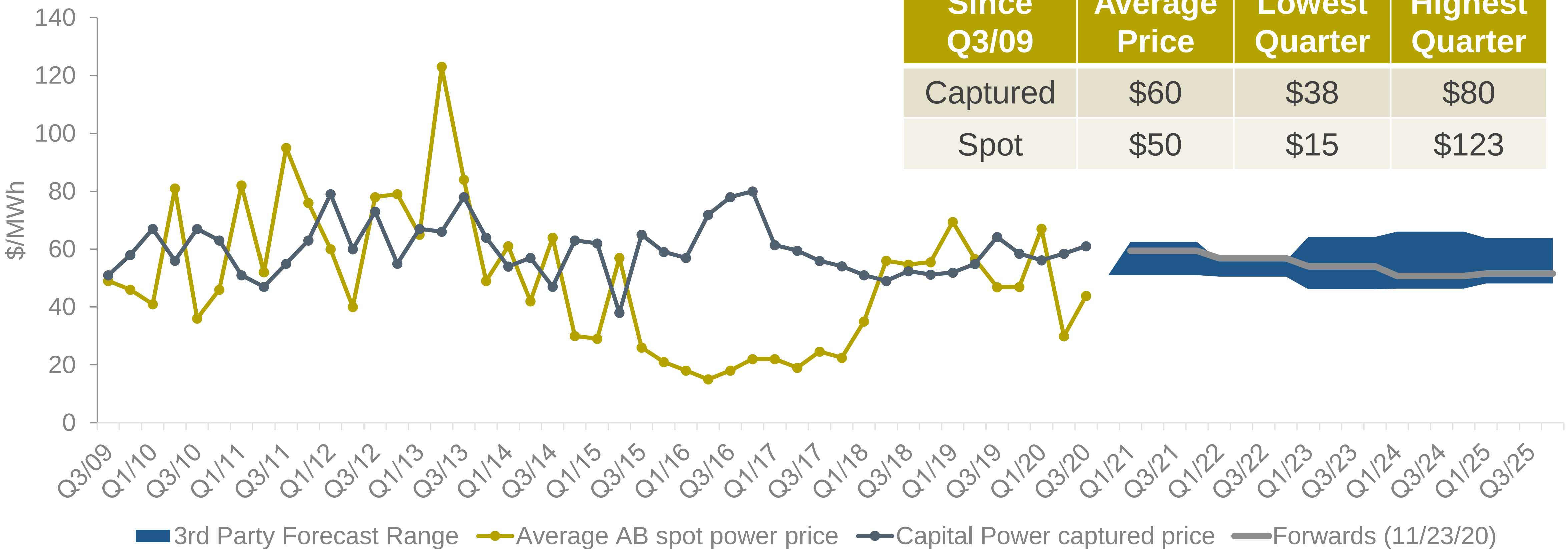


- Based on actual 30-day rolling averages, largest year-over-year (yoy) decline in power demand was ~7.2% due to COVID-19 pandemic and low crude oil prices
- Demand started to recover in June as the economy re-opened closing the gap to ~2% yoy decline in October
- Demand yoy increase by 1.7% as of November 19

1) Source: AESO, Capital Power

Portfolio optimization

Actual and forecasted Alberta power prices



Since Q3/09	Average Price	Lowest Quarter	Highest Quarter
Captured	$60	$38	$80
Spot	$50	$15	$123

Higher captured prices

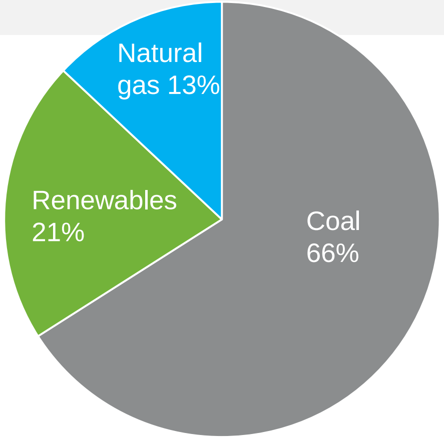
Reduced volatility

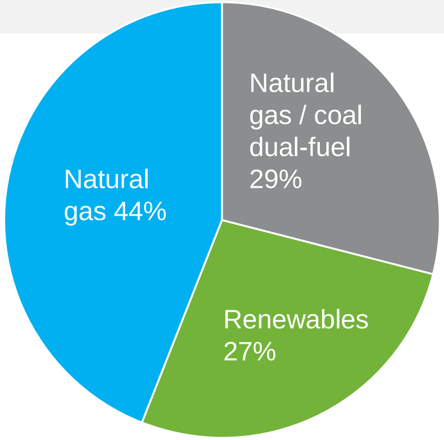
Upside from here

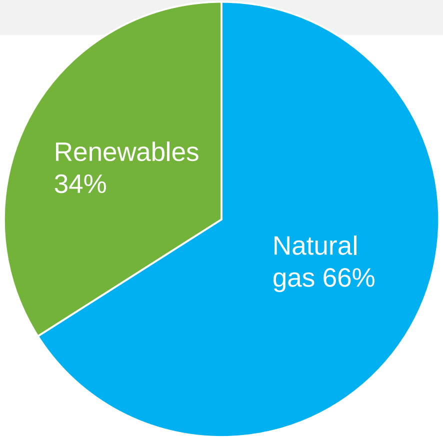
Diversification, Resiliency and Sustainability

	2014	2020F	2025F

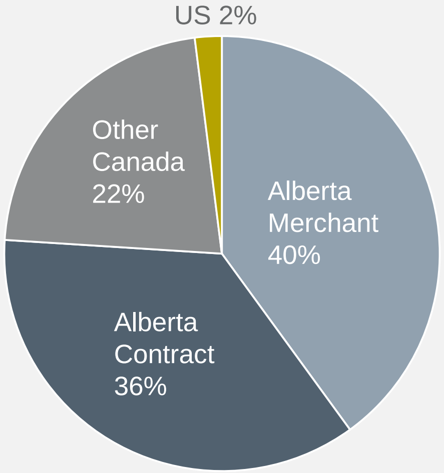
EBITDA by fuel type
Focusing on renewables and hydrogen/CCUS-ready natural gas

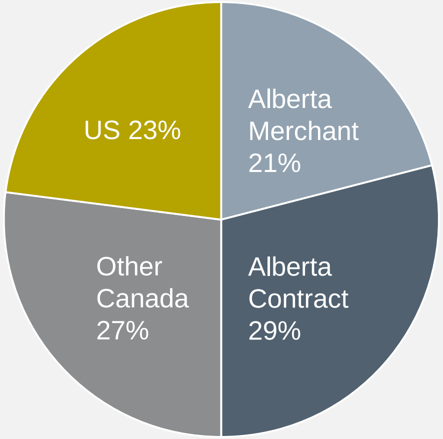


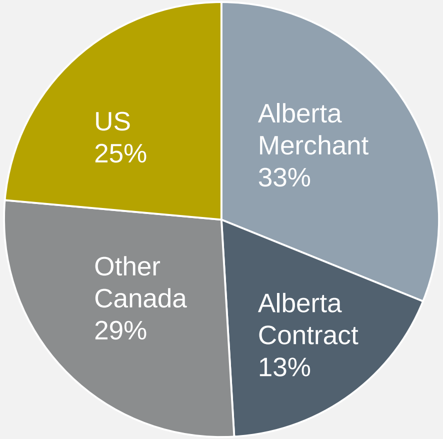




EBITDA by geography
Diversifying growth outside of Alberta and reducing merchant exposure







Shareholder value in a low carbon future

- Deploying capital to grow renewables portfolio
- Repowering Genesee provides shareholder value from environmental benefits and extended economic life
- Extending economic life of natural gas assets through technical innovation to generate long-term cash flows
- Targeting 10-12% total shareholder return over the long term

Sandra Haskins
Senior Vice President,
Finance and Chief Financial Officer

Delivering shareholder value

Creating shareholder value from resiliency in assets and extension of life

- Maintenance and improvements to assets
- Operational excellence keeps costs low and reduces risk
- Creating sources of revenues by expanding opportunities in low carbon future

Competitive positioning in the Alberta power market

- Repowering two Genesee units that will be the most efficient natural gas units in Alberta, extending economic life and mitigating carbon tax

Solid track record of growth

- Currently have 7 development projects underway totaling ~$665M
- Four of the 7 projects have already secured long-term contracts
- Projects will contribute to earnings beyond 2021

Delivering average annual total shareholder return of ~12% since IPO in 2009

Overview of financial strategy

Fund growth towards low carbon future

- Fund growth in a cost-effective manner
- Access various sources of capital and seek innovative ways to fund growth

Maintain investment grade credit rating

- Maintain competitive cost of capital
- Ensure access to capital markets through business cycles
- Provides stability to the dividend

Deliver annual dividend growth

- Provide dividend stability through contracted cash flow profile
- Annual dividend growth within long term AFFO payout ratio target of 45% to 55%

Manage financing risk

- Properly laddered debt maturities
- Effective management of interest rate, foreign exchange and counterparty risk

Capital allocation balance

Dividend growth

Growth opportunities

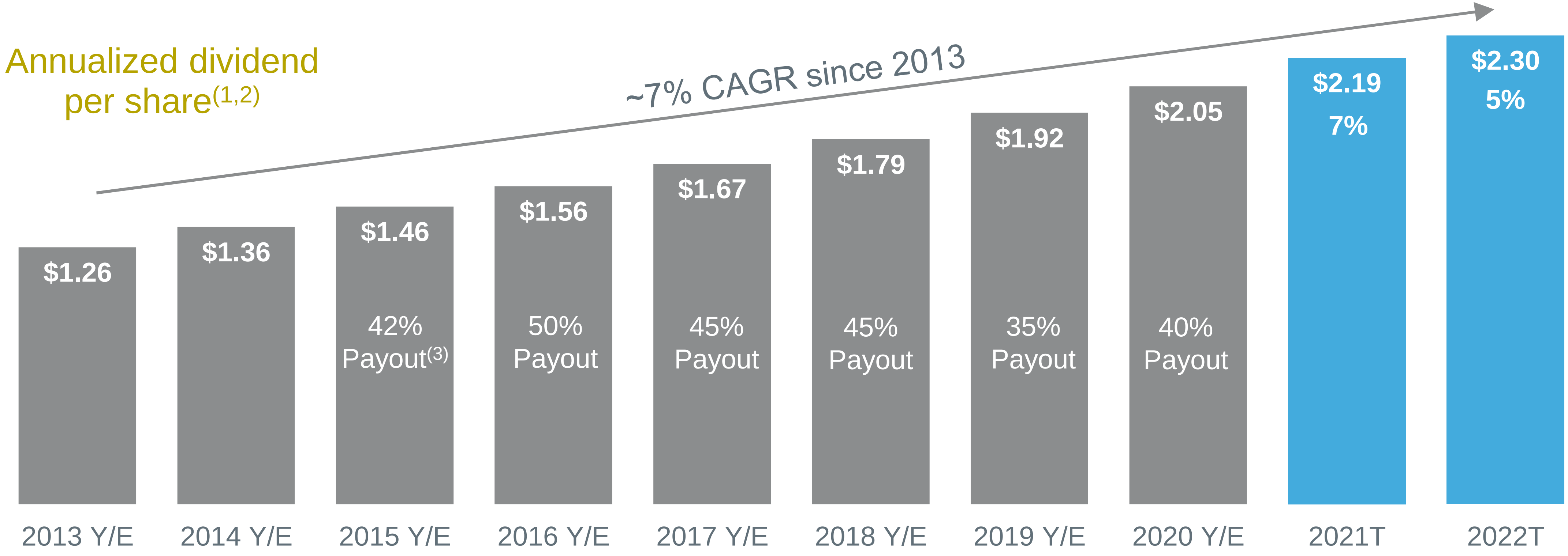
- Existing asset improvements
- Development projects
- Acquisitions

Share buyback & debt repayment

- Balanced focus between dividend growth and growth opportunities
- Growth focused on a lower-carbon fleet
- Allocating capital strategically to develop, commercialize and implement technologies to support sustainability targets
- Share buybacks and debt repayment are considered during periods of limited growth opportunities

Efficient capital allocation creating shareholder value

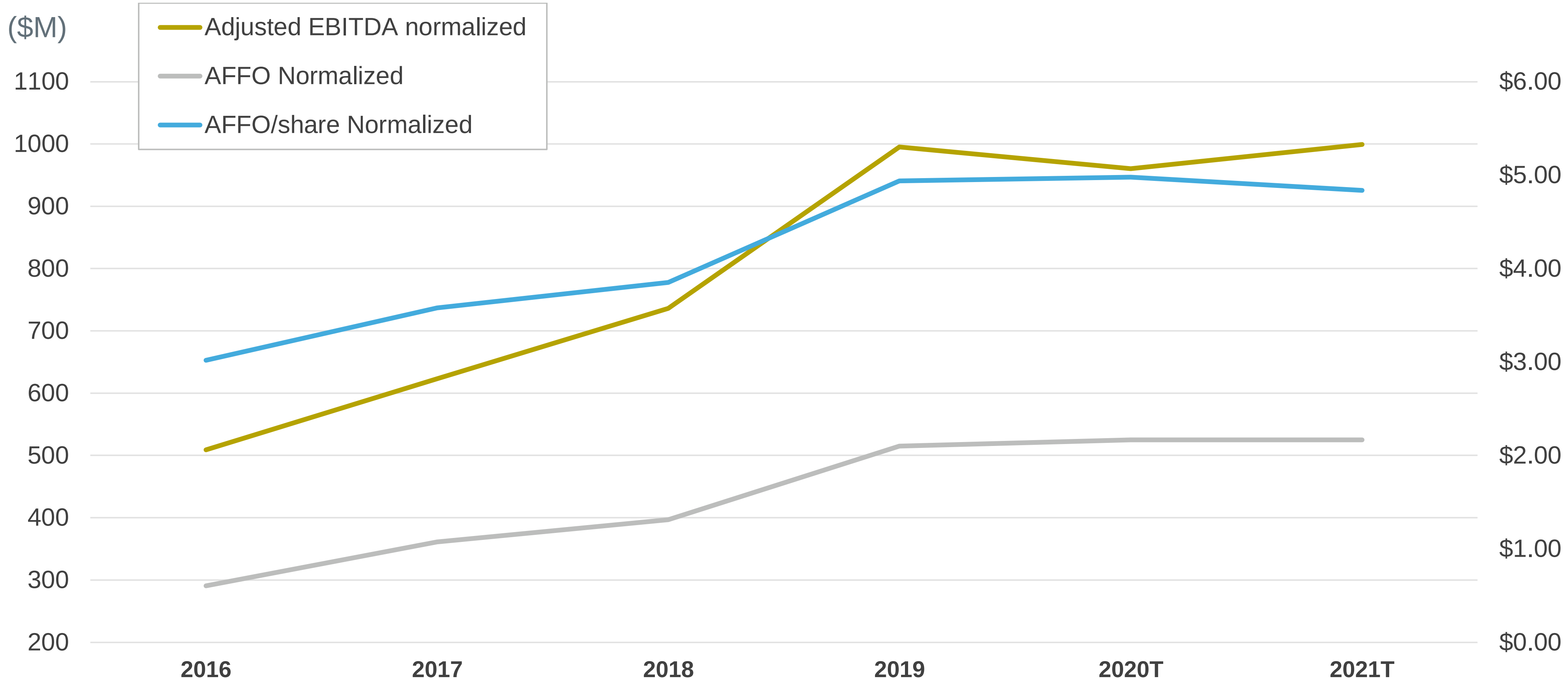
History of stable dividend growth



Long-term AFFO payout ratio target of 45-55%

1) Subject to market conditions, economic outlook, cash flow forecast, and Board approval at the time.
2) 2013 to 2020 annualized dividend based on year-end quarterly common shares dividend declared.
3) Dividend payout ratio based on dividends declared per year as a percentage of AFFO per share.

5-year growth in key financial metrics

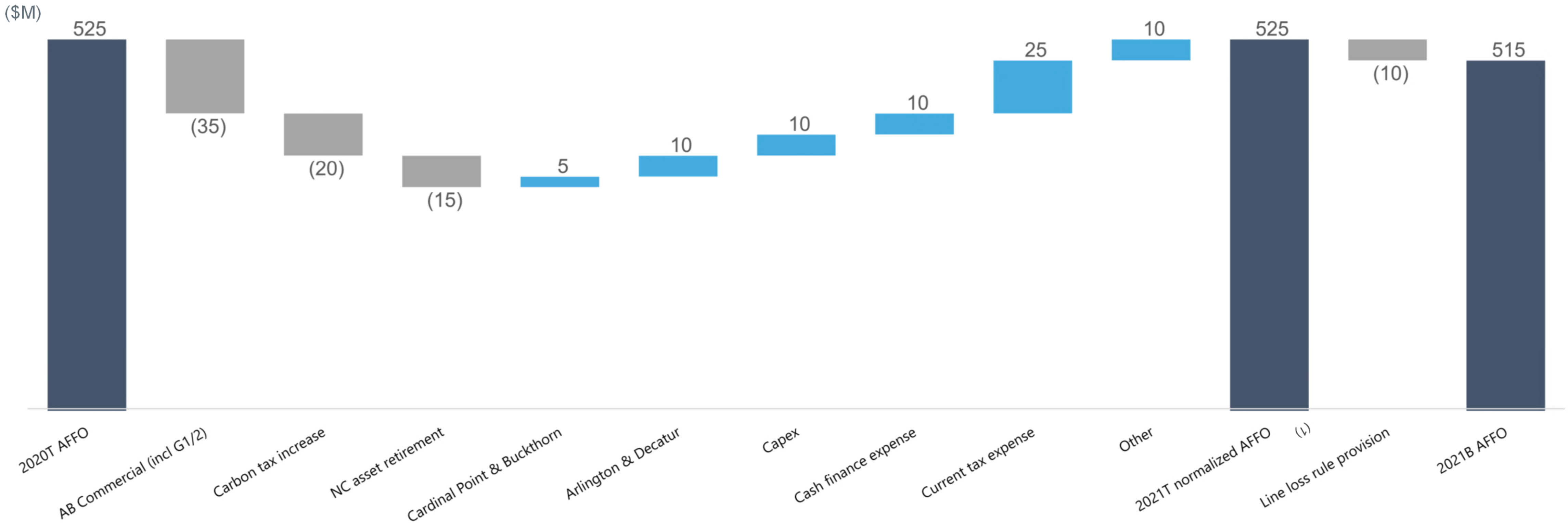


5-year growth supported by average growth capex of $750M(3) per annum

1) Normalized for Milner line loss accrual and non-recurring 2019 Arlington toll payment.
2) Normalized for non-recurring 2019 Arlington toll and payment of Milner line loss.
3) Includes gross capex on Tax Equity Investor projects.

AFFO for 2021

Resilient AFFO absorbing carbon tax increase and asset retirements



1) 2021 AFFO represents midpoint of $500 - $550M guidance range excluding impact from Line Loss rule proceeding.

Cash flow and financing outlook

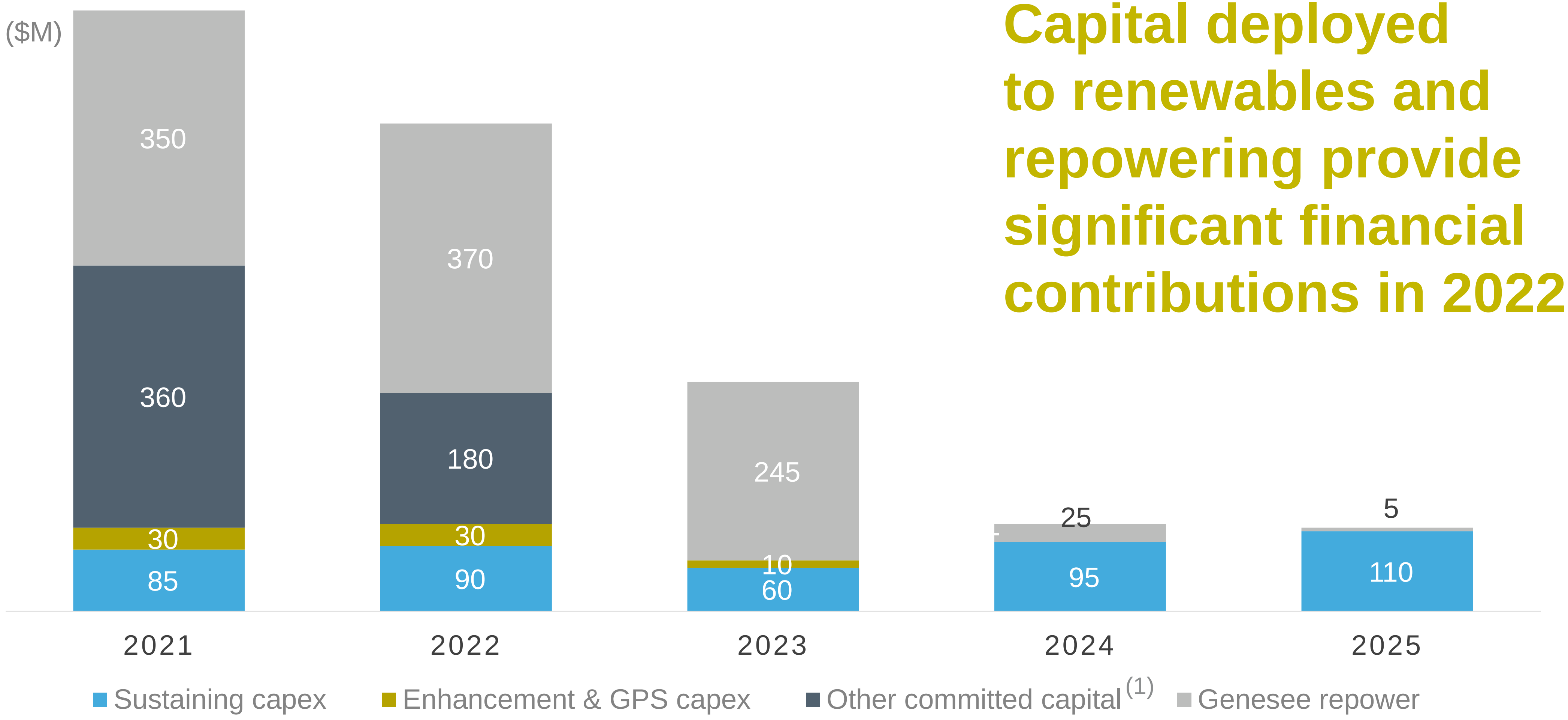
Positive cash position and credit facilities to fund growth projects in 2021

Sources	($M)
FFO[1] + off-coal compensation	$650
Capital markets/debt refinancing/ asset recycling	$510
DRIP reinvestment	$70
	$1,230

Uses	
Committed growth/enhancement capex	$740
Dividends[3]	$300
Debt repayments[2]	$430
Sustaining & maintenance capex	$85
	$1,555
Change in cash position	**($325)**

1) Funds from operations (FFO) is a non-GAAP financial measure.
2) Includes principal payments on finance lease payables but excludes debt repayments to tax equity investor and equity accounted investment.
3) Includes preferred and common dividends and preferred dividend tax.

Capital program



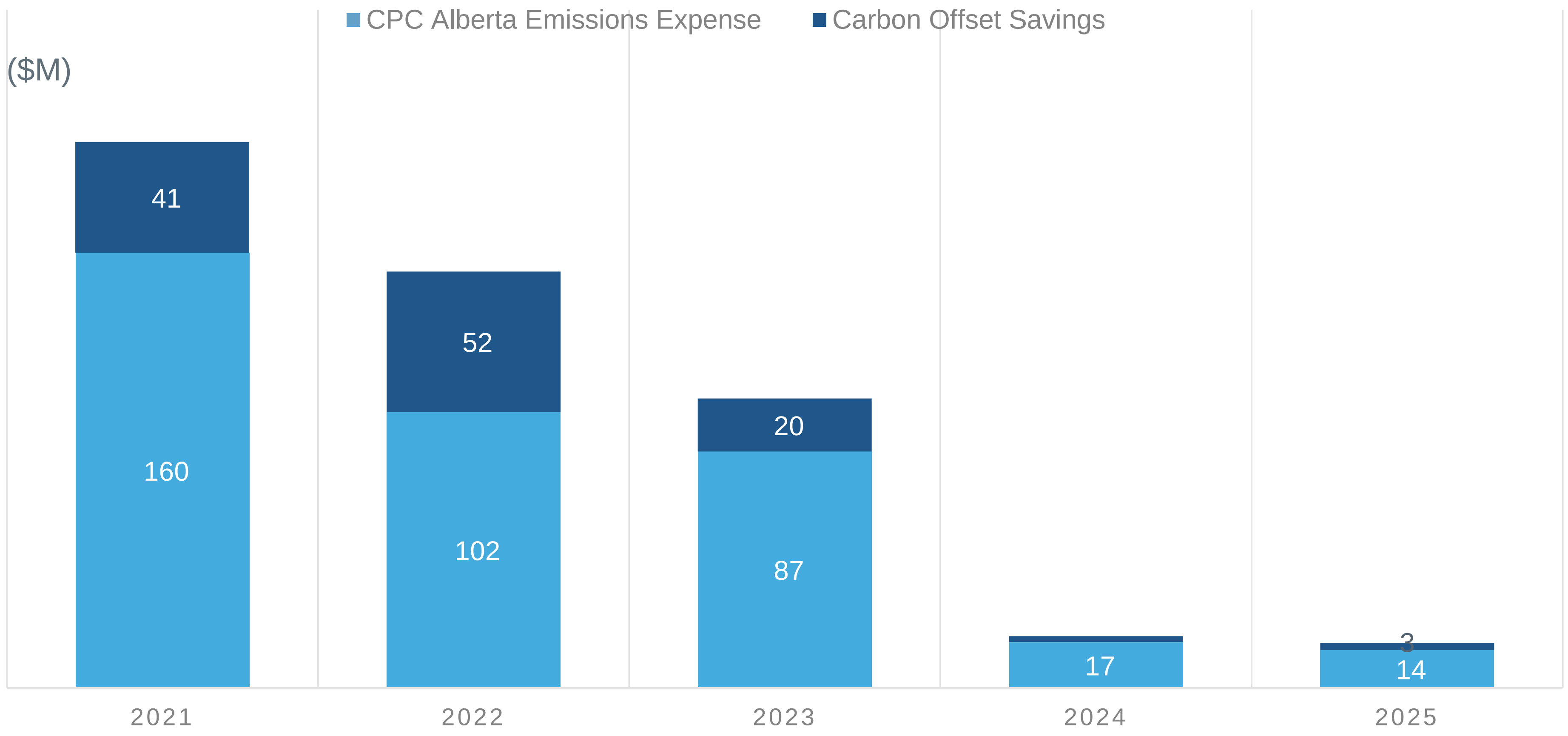
Capital deployed to renewables and repowering provide significant financial contributions in 2022+

1) Includes net capex after Tax Equity Investor contributions.

Financial benefits from Genesee repowering

- Genesee 1& 2 repowered units will be most efficient natural gas combined cycle units in Alberta that solidifies its position in the merit curve
- 0.35 intensity eliminates our exposure to carbon tax under the current policy
- ~$140M net increase in Adjusted EBITDA for the Alberta portfolio in first full year of operations relative to dual-fuel strategy

Managing Alberta carbon exposure

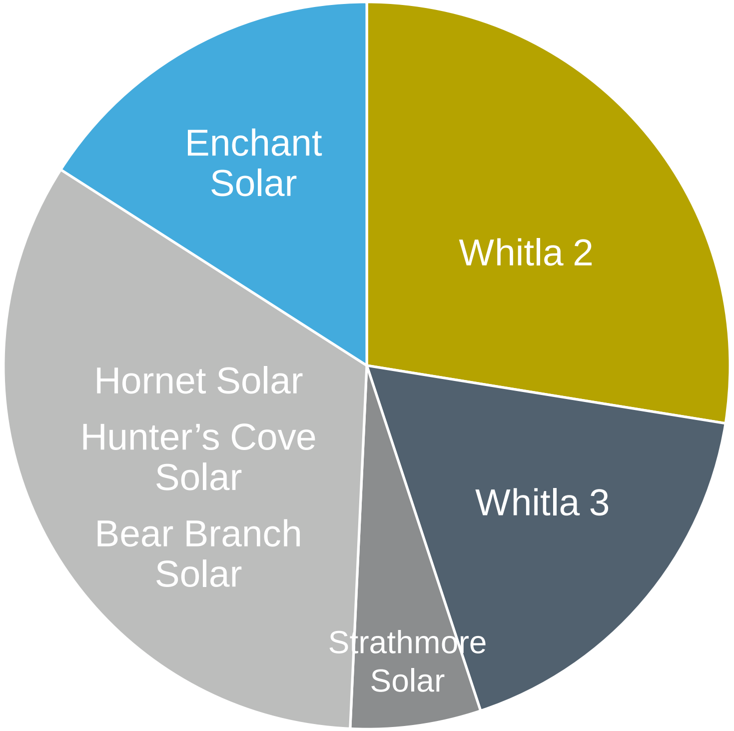


Low-cost offsets and transition to gas protect and enhance asset value

1) Assumes carbon prices increase to $40/tonne in 2021 and $50/tonne in 2022.

EBITDA growth from renewable projects

Annualized EBITDA of ~$70M



Total committed capital $665M

($165M in 2019, $500M in 2020)

Average annualized EBITDA ~$70M and AFFO of ~$55M

after completion in late 2021 and 2022

Full-year financial contributions starting in 2023 from growth capex in 2021-22

Portfolio optimization

AB commercial portfolio positions

(All data as of Nov 27/20)	2021	2022	2023
% sold forward(1)	21%	25%	17%
Contracted prices(2) ($/MWh)	High-$50	Mid-$50	Low-$50
Forward prices ($/MWh)	$59	$57	$54
EBITDA sensitivity to a $5/MWh change in spot prices(3) ($M)	$52	$50	$58

Strong track record of value creation and managing merchant risk exposure from portfolio optimization

1) Based on the Alberta baseload plants plus a portion of Joffre and the uncontracted portion of Shepard.
2) Forecasted average contracted prices may differ significantly from future average realized prices as future realized prices are driven by a combination of previously contracted prices and settled prices.
3) Includes both baseload and non baseload positions.

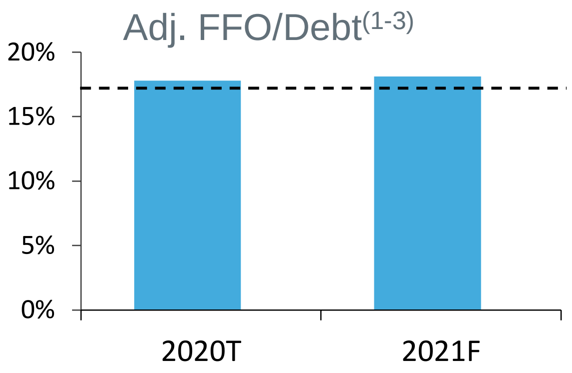
Financial stability and strength

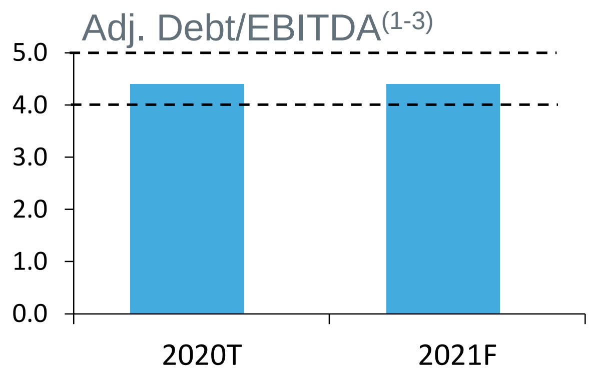
Strong balance sheet and commitment to investment grade credit ratings

Agency	Ratings	Outlook
S&P	BBB- / P-3	Stable
DBRS	BBB(low) / Pfd-3 (low)	Stable

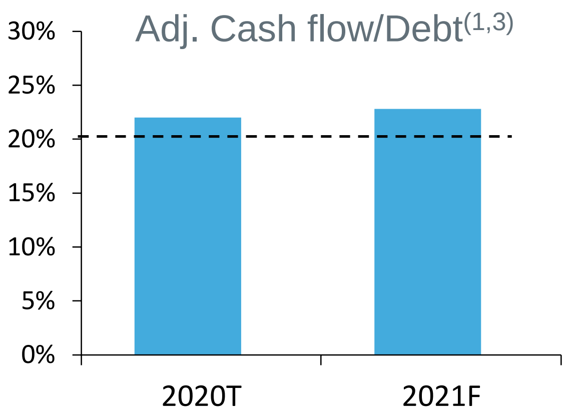
- Both credit rating agencies affirmed our investment grade credit ratings and stable outlook
- Strong liquidity from cash flow from operations and $1B of committed credit facilities to 2024
- Forecast metrics are within rating agency expectations for the current ratings with stable outlook

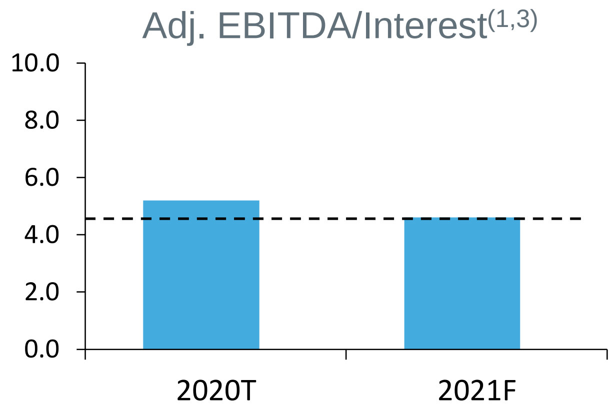
S&P financial metrics





DBRS financial metrics





1) Cash flow and adjusted EBITDA amounts include off-coal compensation.
2) Based on S&P's weighted average ratings methodology.
3) 2020T means 2020 target. 2021F means 2021 forecast.

Key takeaways

- Significant deployment of capital on renewables and Genesee repowering
    - Total spend of ~$665M for 7 renewables development projects that begin commercial operations in late 2021 to 2022
- Reduced/eliminated carbon tax risk by being off-coal
- Securing strong position in Alberta power market with repowering of Genesee that provides both environmental and shareholder benefits
- Maintain strong balance sheet to support investment grade credit rating and access to capital markets
- Dividend growth guidance unchanged at 7% in 2021 and 5% for 2022

2021 Corporate Priorities

A responsible, future-focused and attractive investment

Brian Vaasjo
President & CEO

2021 annual operational and financial targets

	2020 Target	2021 Target
Facility availability	93%	93%
Sustaining capex ($M)	$90 to $100	$80 to $90
Adjusted EBITDA ($M)	$935 to $985	$975 to $1,025
AFFO ($M)	$500 to $550	$500 to $550[1]

1) Excluding the impact from the Line Loss Rule proceeding.

Growth targets from development and construction projects

- Repowering proceeds on-time and on-budget
- Continue developing renewable projects on-time and on-budget
- $500 million committed capital for growth

	Budget ($M)	Target COD
Whitla Wind 2 (AB)	$165	Q4/21
Whitla Wind 3 (AB)	$92	Q4/21
Strathmore Solar (AB)	$53*	Early 2022
Enchant Solar (AB)	$95*	Q4/22
Hornet Solar (North Carolina)	$118	Q4/22
Hunter's Cove Solar (North Carolina)	$82	Q4/22
Bear Branch Solar (North Carolina)	$60	Q4/22

*Represents mid-point of construction cost range

Why invest in Capital Power?

Resilient strategy drives growth and accelerates net carbon neutral before 2050

Success in renewables from innovation and optimization

- Success in solar more than doubles our growth opportunities
- Duke and Strathmore contracts affirm competitiveness

Genesee repowering capitalizes on strong Alberta market and in-house innovation

- Most efficient NGCC in Canada
- Significantly reduced carbon footprint and risk
- Carbon conversion ready and hydrogen achievable

Operational excellence and innovation remain fundamental

- $50 million EBITDA from Ops 2030
- Genesee Carbon Conversion Centre
- Storage and hydrogen investigation

ESG is integral to our DNA

We create value through resiliency, optimization and innovation

Non-GAAP financial measures

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 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) adjusted funds from operations per share as financial performance measures.

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 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.

Additional disclosure around the Company's non-GAAP financial measures, including reconciliations of these non-GAAP financial measures to their nearest GAAP financial measures are disclosed in the Company's Management's Discussion and Analysis prepared each quarter, most recently prepared as of October 30, 2020 for the third quarter of 2020, 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 disclosures regarding: (i) timing, expected capital costs, project returns (including expected AFFO per share), and environmental benefits (including the expected reduction in emission levels) of the Genesee repowering project, (ii) timing of completion of Strathmore Solar, (iii) timing, expected capital costs, and financial performance (including expected AFFO and adjusted EBITDA impacts) of Enchant Solar, (iv) expected completion date of the Genesee Carbon Conversion Centre, and (v) targets for 2021 including operational, growth and financial targets.

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: (i) electricity, other energy and carbon prices, (ii) operating and asset development performance, (iii) business prospects (including potential re-contracting opportunities) and opportunities including expected growth and capital projects, (iv) status of and impact of policy, legislation and regulations, (v) effective tax rates and (vi) foreign exchange rates.

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: (i) changes in electricity prices in markets in which the Company operates, (ii) changes in energy commodity market prices and use of derivatives, (iii) regulatory and political environments including changes to environmental, financial reporting, market structure and tax legislation, (iv) generation facility availability, wind capacity factor and performance including maintenance expenditures, (v) ability to fund current and future capital and working capital needs, (vi) timing and costs of regulatory approvals and construction in relation to development projects, (vii) changes in market prices and availability of fuel, and (viii) changes in general economic and competitive conditions. See Risks and Risk Management in the Company's Management's Discussion and Analysis for both the nine months ended September 30, 2020, prepared as of October 30, 2020 and for the year ended December 31, 2019, prepared as of February 21, 2020, 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 specified approval date. The Company does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in the Company's expectations or any change in events, conditions or circumstances on which any such statement is based, except as required by law.

Capital Power

RESPONSIBLE ENERGY FOR TOMORROW

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