Driving a Sustainable Future

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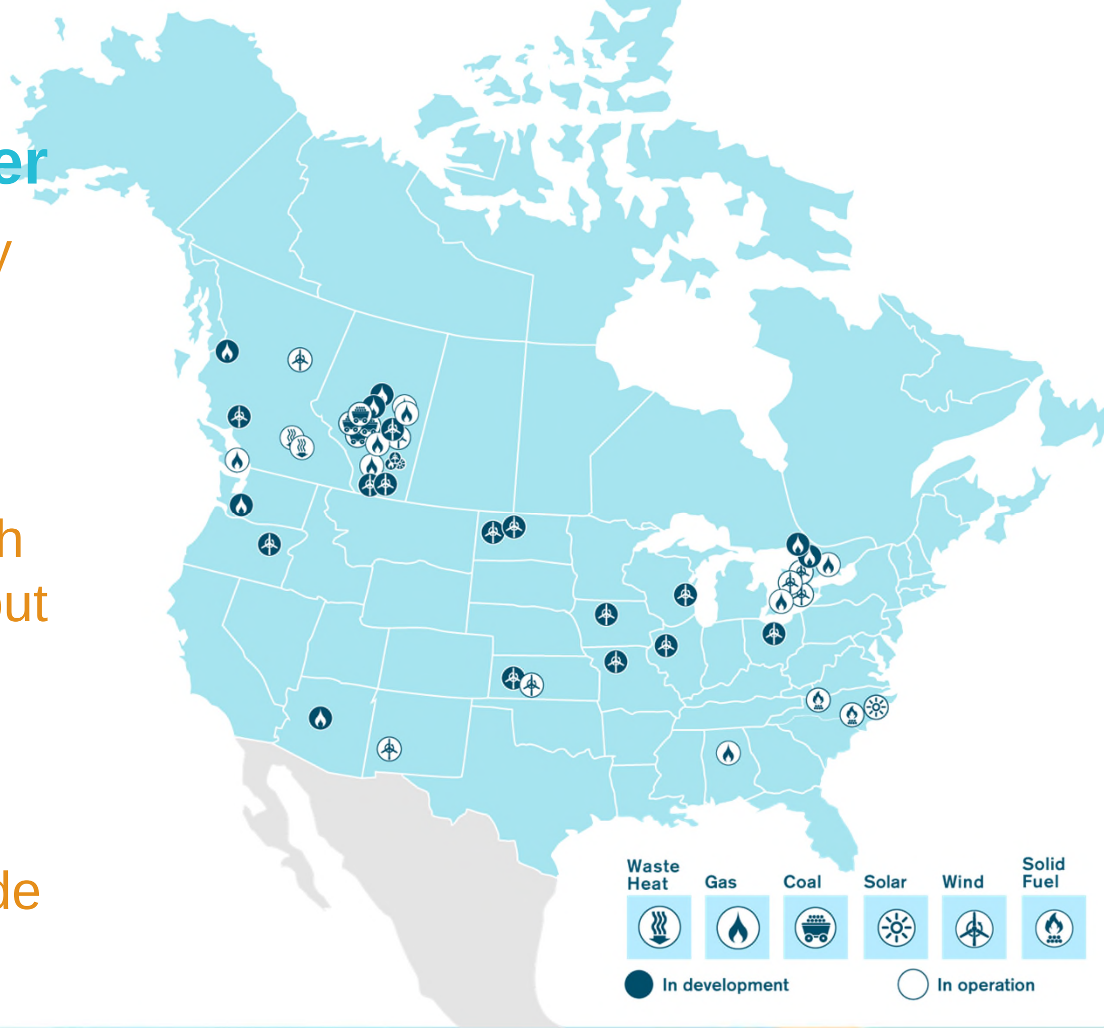
Investor Presentation
September 2018

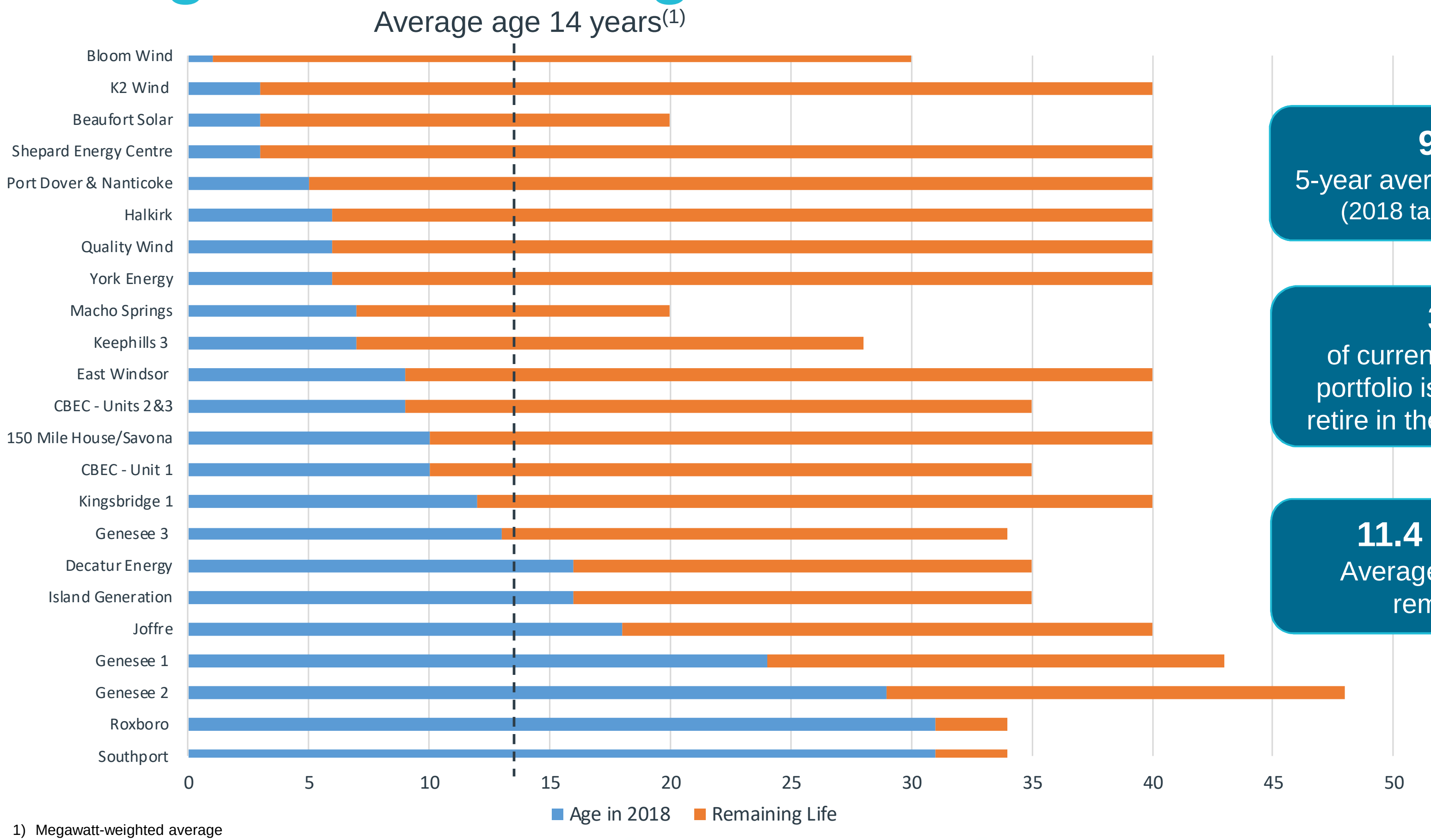
Capital Power

Growth-oriented North American power producer

- 4,500 MWs of owned capacity transitioning to lower carbon intensity
- Highly-contracted portfolio
- History of dividend growth with 7% annual growth guidance out to 2020
- Strong pipeline of contracted growth opportunities
- Committed to investment grade credit rating



Young fleet with long asset lives



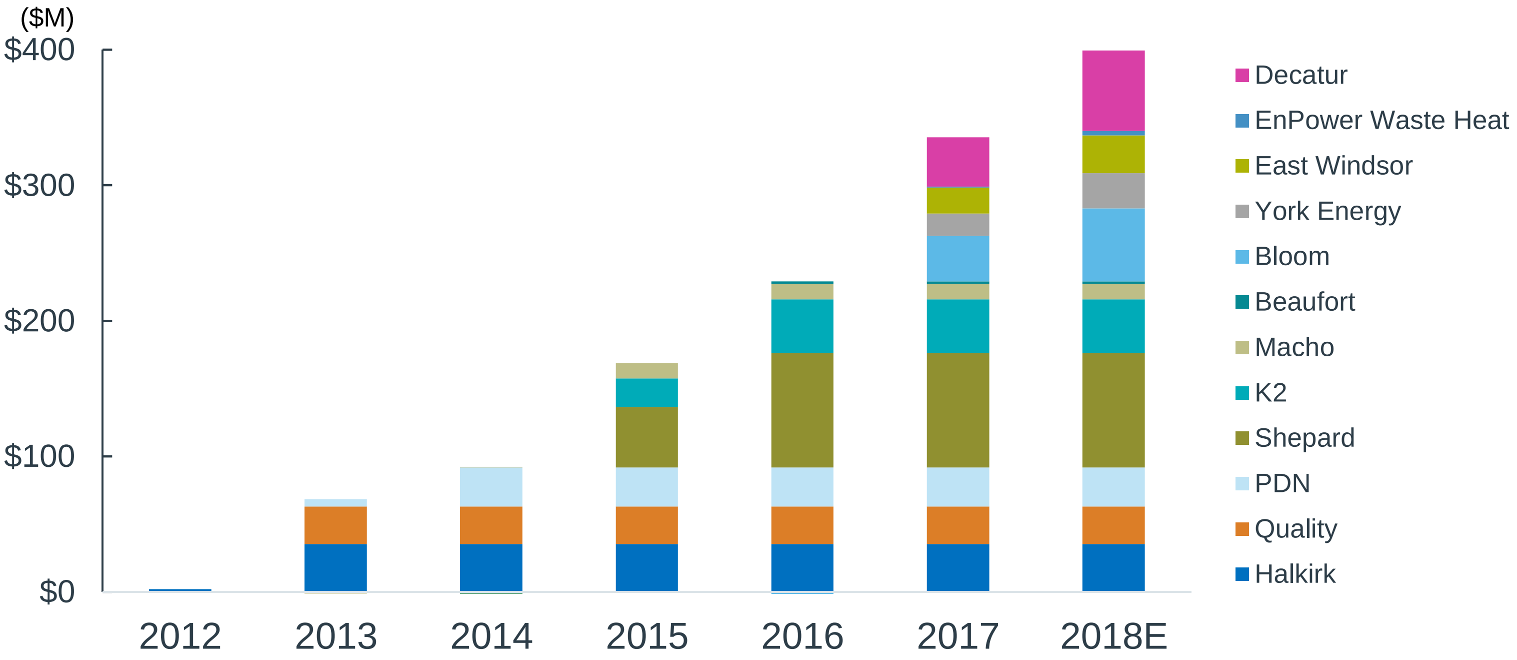
95%
5-year average availability
(2018 target of 95%)

3%
of current generation portfolio is expected to retire in the next decade

11.4 years[2]
Average PPA term remaining

1) Megawatt-weighted average
2) Based on 2018 EBITDA. Includes Off-Coal Agreement with the Province of Alberta and excludes Genesee 1 & 2 PPA.

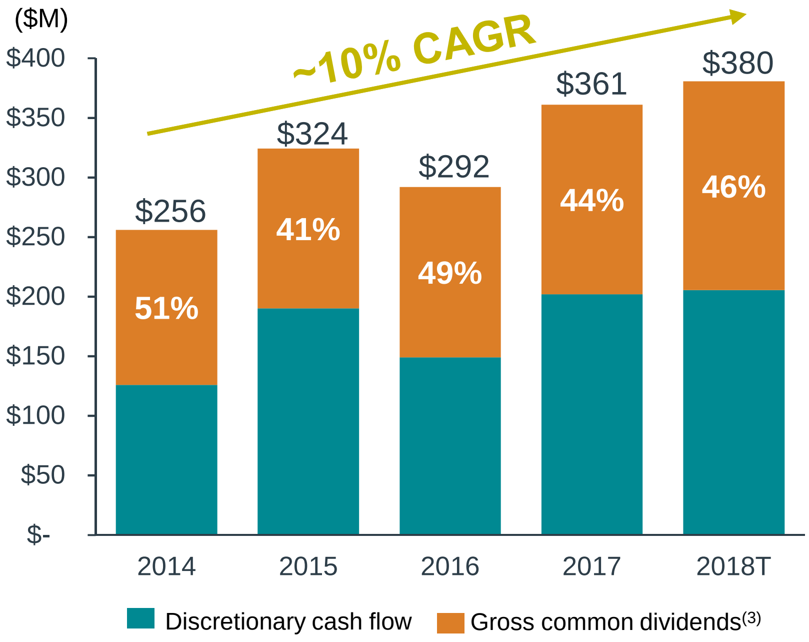
EBITDA growth from new assets has supported dividend growth(1-5)



Growth capex since 2012 averages ~$500M(5) per annum

1) Margins have been averaged over the periods except in the year of commissioning/acquisition.
2) Capital Power's share of adjusted EBITDA for all assets. Adjusted EBITDA is a non-GAAP measure.
3) Bloom EBITDA has been adjusted for impacts of US tax reform legislation.
4) Includes both merchant and contracted components of Shepard and Halkirk. The merchant components include contributions from trading activity attributable to the plants' production.
5) Includes gross capex from tax-equity investments.

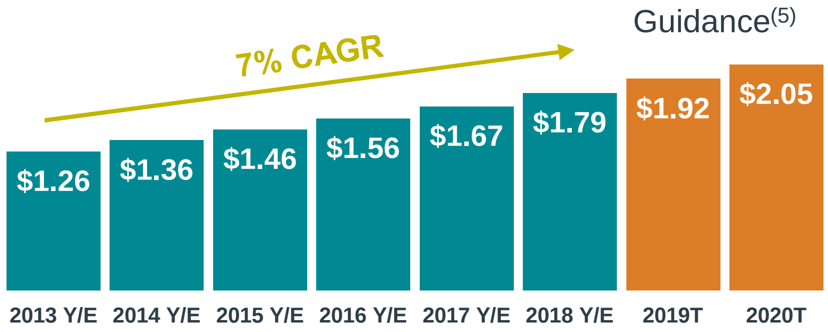
AFFO[1,2] growth supports annual dividend increases



5-year average AFFO payout ratio of 46% consistent with 45-55% target payout ratio

Dividends

Annualized dividend per share[4]



Dividend growth supported by

- Growth capital invested at hurdle rates that supports 7% dividend growth
- ~$200M per year in discretionary cash flow supporting $400-$500M of growth capex per year

1) 2018 AFFO target represents the midpoint of $360M - $400M guidance range. AFFO is a non-GAAP financial measure.
2) Historical AFFO figures restated using Adjusted AFFO (2018 method).
3) Includes cash dividends, dividends retained under DRIP, and distributions to EPCOR.

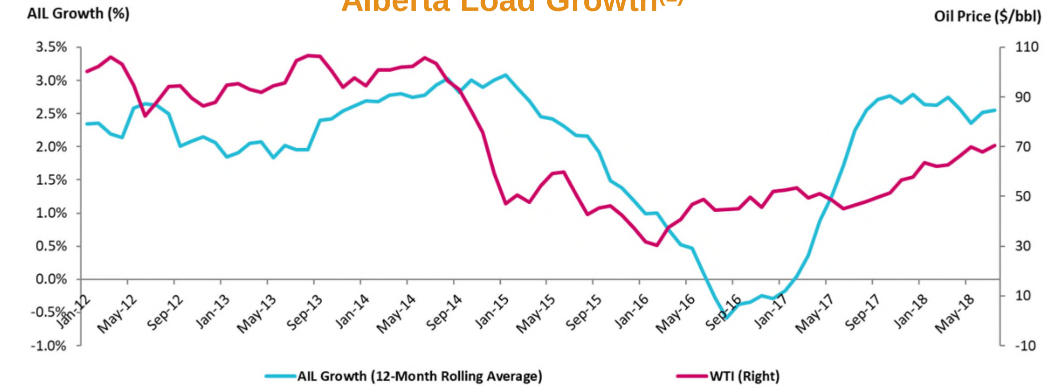
4) 2013-2018 annualized dividend based on year-end quarterly common share dividend declared.
5) Subject to market conditions, economic outlook, cash flow forecast, and Board approval at the time.

Alberta power market

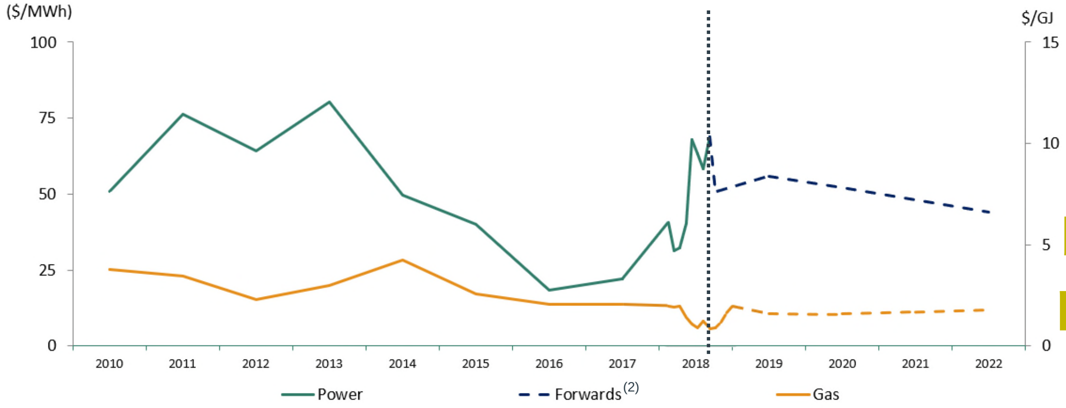
- Robust outlook for power prices
- Demand growth of 3-4%
- Reasonable capacity market design

Alberta power market has recovered

Alberta Load Growth[1]



Alberta Energy Prices[2]



- Alberta is experiencing strong demand growth
- New summer peak record of 11,099 MW on Jul 17/18
- Older coal fired units have started to retire
- Termination of 2000 MW of PPAs has facilitated commercial optimization

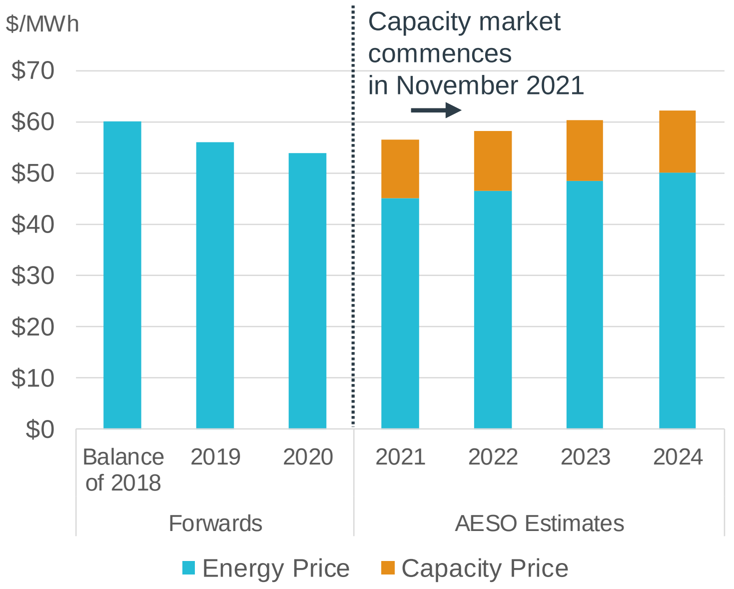
Capital Power has the best fleet of assets in the province to capture value

1) Alberta Internal Load normalized for weather. Source: Capital Power, EIA.
2) Forward prices as of Sept 2018. Monthly details shown for the year 2018.

Capacity market design

- AESO has finalized its proposed market design
- Design is constructive and provides an equal opportunity for existing and new assets to earn a return on and of capital
- Key design elements such as participation, market mitigation, term length are reasonable as expected
- Next steps:
  - Additional consultation on technical details and finalization of remaining design elements
  - Translation of design into formal rules for submission to Alberta Utilities Commission for approval

AESO's forecast revenue for baseload facilities



AESO's forecast of $55-$65/MWh for the combined capacity and energy payments will allow existing and future assets an opportunity to earn a return on/of capital

Final design is consistent with our view of a properly designed capacity market for Alberta and we are well-positioned under this market design

Opportunistic hedging strategy

Alberta commercial portfolio positions

(As of June 30, 2018)

	2019	2020	2021
% Sold forward(1) (700 MWs of baseload)	49%	25%	5%
Contracted prices(2) ($/MWh)	Low-$50	Low-$50	Mid-$50

Current average forward prices(3) ($/MWh)	$51	$50	$46

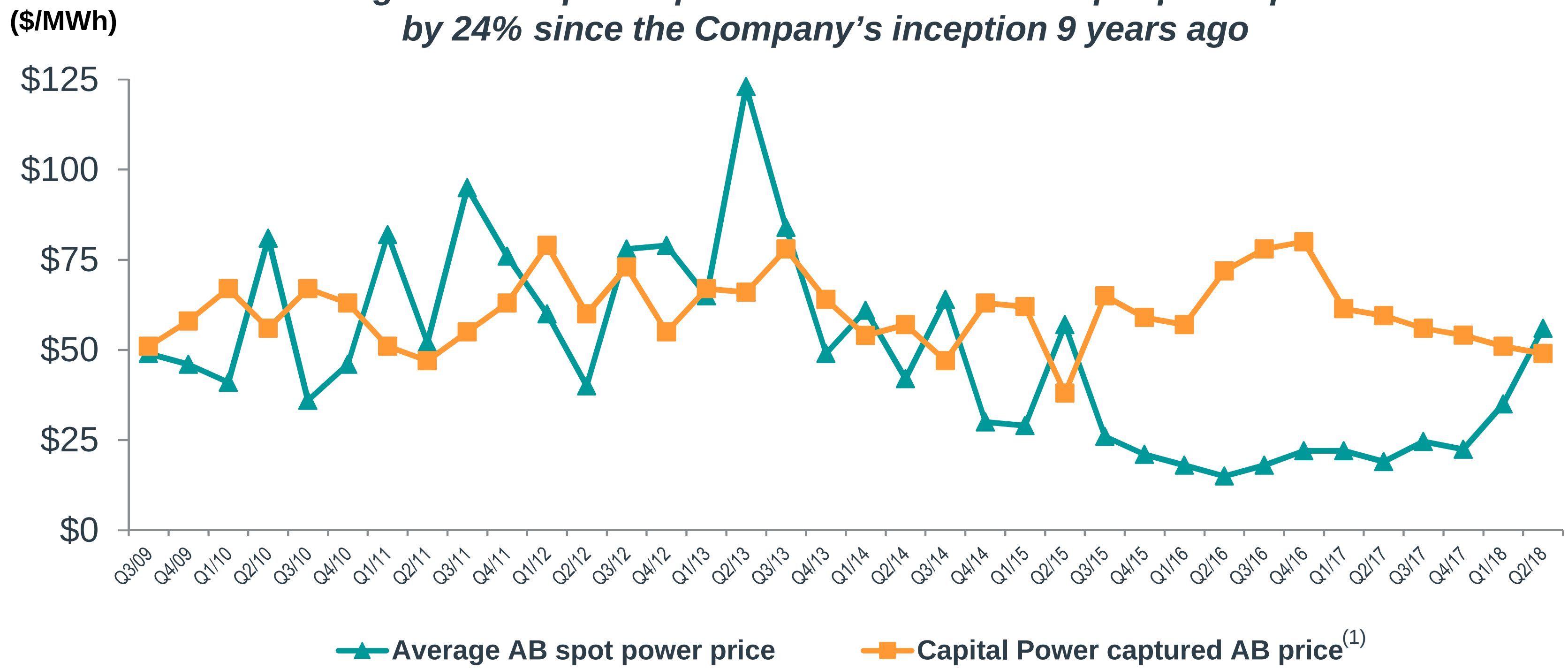
Unhedged baseload position plus nearly 500 MW (gas peaking, wind) available to capture upside from higher power prices & price volatility

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) As of September 4, 2018.

Maximizing the commodity portfolio

Creating incremental value and stability through market expertise

Average realized power prices[1] have exceeded spot power prices by 24% since the Company's inception 9 years ago



1) Based on the Alberta baseload plants and the acquired Sundance PPA plus the uncontracted portion of Shepard Energy Centre baseload. Effective March 24, 2016, Sundance PPA is no longer a part of Capital Power's baseload generation due to termination of the Sundance PPA.

Growth strategy

- Strong renewable pipeline including 1,200 MW of U.S. wind development
- Potential natural gas acquisitions
- $500M - $1.0B average growth per year supporting dividend growth
- Expect one additional wind project in 2018; two in 2019

Acquisition of Arlington Valley

- Executed agreement on Sept 5/18 to acquire 580 MW contracted gas facility in Arizona for US$300M
- Financing of the transaction through credit facilities followed by permanent debt financing; closing expected in Q4/18
- Strategic benefits:
  - **Key addition to U.S. growth plans** – well-positioned asset in the attractive Desert Southwest (DSW) power market
  - **Immediate accretion** – 5-year average accretion of $0.22 (6%) on AFFO/share and $0.03 (2%) to EPS
  - **Strengthens contracted cash flow profile** – contracted until 2025 with high probability of re-contracting (above average load growth & supply retirements, multiple potential off-takers). Pursuing additional contracts for the output generated in the non-summer toll months.

Arlington is a low risk, long term cash generating investment providing an important platform for potential further growth in the Desert Southwest

Current projects under construction/development

2018 | 2019 | 2020 | 2021

New Frontier Wind
(North Dakota)
- 99 MW
- 12-year PPA
- $182M
- COD in Dec 2018

Whitla Wind
(Alberta)
- 201.6 MW (Phase 1)
- 20-year PPA
- $315-$325M
- COD in Q4, 2019

Cardinal Point Wind
(Illinois)
- 150 MW
- 12-year PPA
- $289-$301M
- COD in March 2020

450 MWs of long-term contracted wind facilities added to the fleet in less than 2 years

Canadian growth opportunities

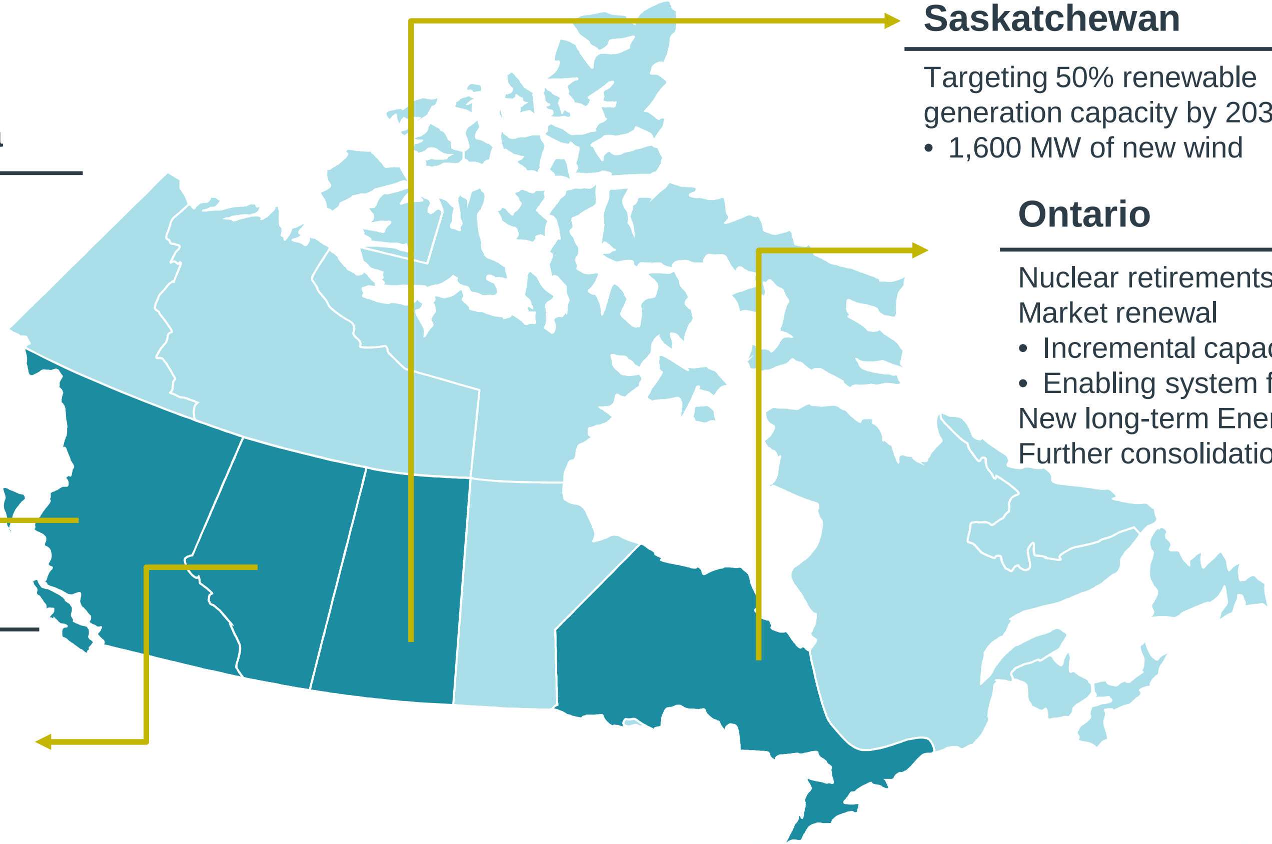
Significant investment required by 2030

British Columbia

Development sites:
- 2x wind
- 1x gas

Alberta

- Coal phase-out
- Renewable Electricity Program (5,000 MW opportunity)
- Gas-fired opportunities



Saskatchewan

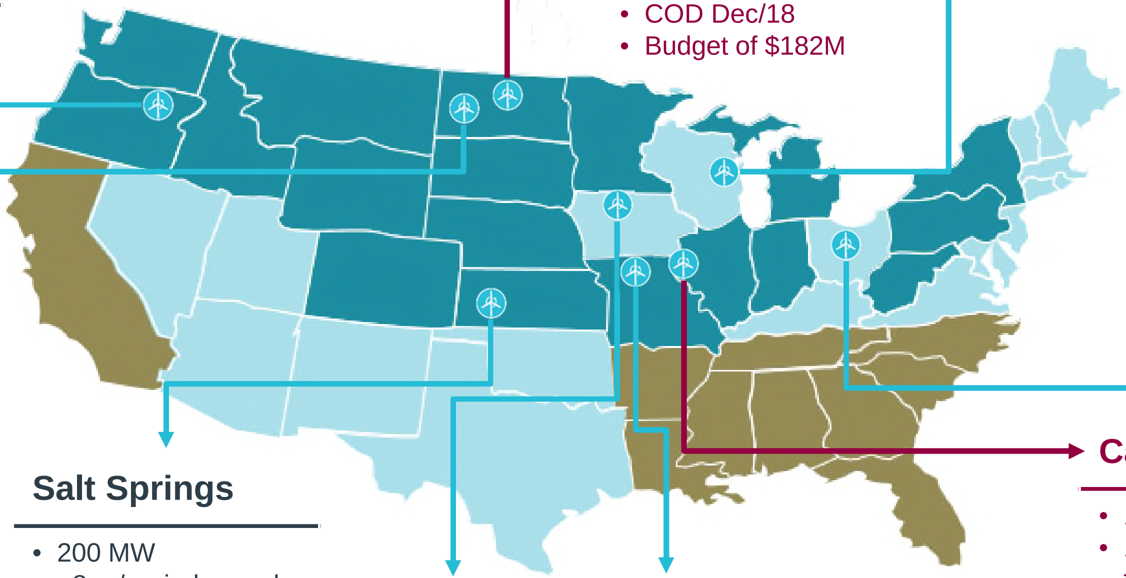
Targeting 50% renewable generation capacity by 2030
- 1,600 MW of new wind

Ontario

Nuclear retirements
Market renewal
- Incremental capacity auctions
- Enabling system flexibility

New long-term Energy Plan
Further consolidation

US wind development opportunities



New Frontier

- 99 MW
- MISO
- 12-year fixed price contract for 87% of the facility's output
- COD Dec/18
- Budget of $182M

Tisch Mills

- 100 MW
- >7 m/s wind speed
- MISO
- WI RPS
- Advanced DPP

Nolin Hills

- 350 MW
- >6 m/s wind speed

Garrison Butte

- 200 MW
- >8 m/s wind speed
- MISO or SPP

Black Fork

- 100-180 MW
- >6 m/s wind speed
- PJM
- Executed GIA
- Permitted OH project

Salt Springs

- 200 MW
- >8 m/s wind speed
- SPP
- 30 mi north of Bloom Wind

Willow Creek

- 100-200 MW
- MISO

Green Hills Wind

- 78 MW
- MISO

Cardinal Point

- 150 MW
- 12-year fixed price contract for 85% of the facility's output
- 15-year REC contracts
- COD Mar/20
- Budget of $289M-$301M

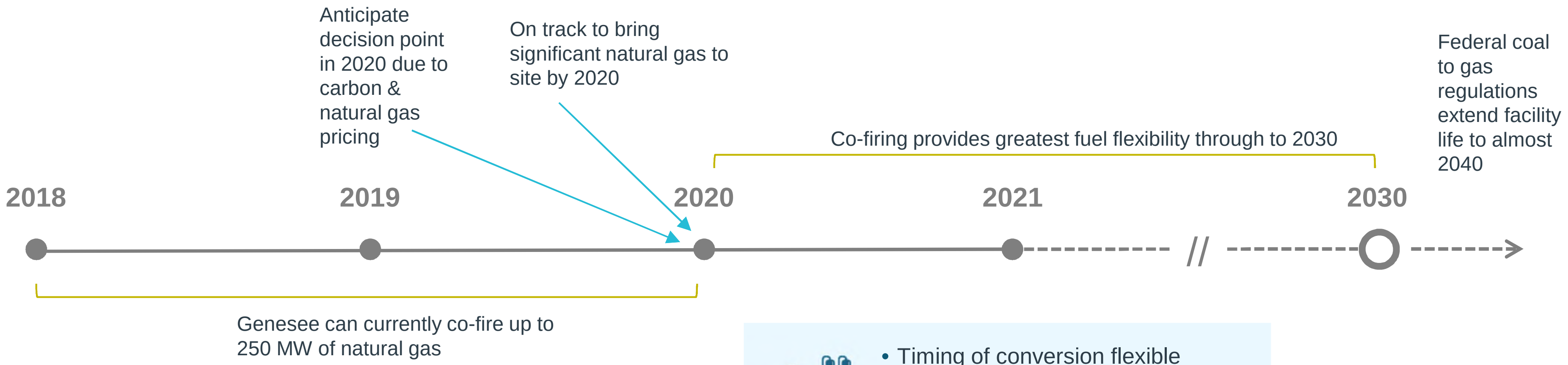
Sustainability strategy

- Focus on building renewables
- Leveraging low natural gas prices by co-firing gas at coal facilities
- Coal-to-gas conversion
- World-leading carbon reduction program targeting 11% reduction in GHG emissions
- Carbon capture investments (C2CNT)

A leader in clean, low cost generation solutions

Coal-to-gas conversion transition plan

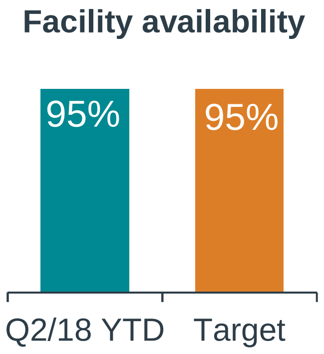
Optimal operational flexibility for Genesee units

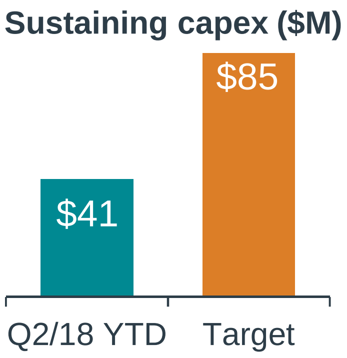


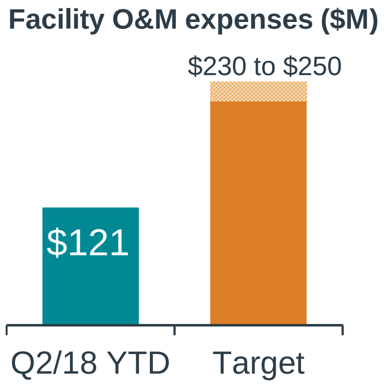
- Timing of conversion flexible
- 9 months or less conversion period
- Outage of 2 months per unit
- Capital cost of $30M-$35M per unit

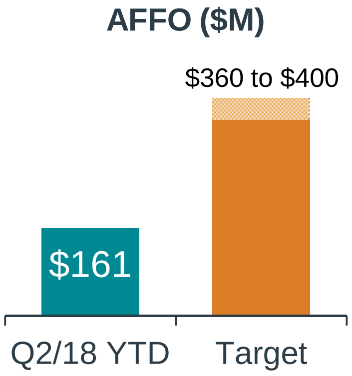
Superior availability and efficiency of coal fleet will carry over as converted natural gas units

6-month performance versus 2018 annual targets









2018 AFFO expected to be above the midpoint of the range

Sustainability and dividend growth

Dividend yield

Dividend yield has returned to historic 5-6% range with more clarity on the Alberta power market

A strong past, a stronger future

Decreasing risk and growing cash flows

	Generation technology[1]	Contracted capacity[1]	North American footprint[1]
2015	**42%** gas and renewables	**66%** Contracted	**74%** Alberta
2018	**58%** gas and renewables	**82%** Contracted	**57%** Alberta
	Renewables growth	**Greater visibility**	**Geographic diversification**

AFFO PER SHARE CAGR
~10%
2014-2018

DIVIDEND GROWTH
7%

PAYOUT RATIO TARGET
45-55%

GROWTH
450 MW
under development

1) Based on Adjusted EBITDA excluding G&A expenses

Appendices

Capital Power

Alberta’s coal fleet

Retirements under federal / provincial regulations and conversion to gas

Facility	AESO max capacity (MW)	Age in 2018 (yrs)	End of coal life (CLP)[1]	Current Status	Coal to gas conversion Expectation	PPA status
Battle River 3	149	49	2019	Online	ATCO announced CtG by 2020	Merchant
Sundance 1	288	48	2019	Decommissioned end of 2017		PPA expired end of 2017
H.R. Milner	144	46	2019	Return from mothball end of May 2018		Merchant
Sundance 2	288	45	2019	Retired		PPA expired end of 2017
Battle River 4	155	43	2025	Online	ATCO announced CtG by 2020	Merchant
Sundance 3	368	42	2026	Mothballed Apr/18 (up to 2 yrs)	TA announced CtG 2021-22	Returned to TA in Apr/18
Sundance 4	406	41	2027	To be mothballed Apr/19 (up to 2 yrs)	TA announced CtG 2021-22	Returned to TA in Apr/18
Sundance 5	406	40	2028	Mothballed Apr/18 (up to 1 yr)	TA announced CtG 2021-22	Returned to TA in Apr/18
Sundance 6	401	38	2029	Online	TA announced CtG 2021-22	Returned to TA in Apr/18
Battle River 5	385	37	2029	Online	ATCO announced CtG by 2020	Returns to ATCO Sep/18
Keephills 1	395	35	2029	Online	TA announced CtG 2021-22	Balancing Pool; Dec/20 expiry
Keephills 2	395	34	2029	Online	TA announced CtG 2021-22	Balancing Pool; Dec/20 expiry
Sheerness 1	400	32	2030	Online	ATCO announced CtG by 2020	Balancing Pool; Dec/20 expiry
Genesee 2	**400**	**29**	**2030**	Online		Balancing Pool; Dec/20 expiry
Sheerness 2	390	28	2030	Online	ATCO announced CtG by 2020	Balancing Pool; Dec/20 expiry
Genesee 1	**400**	**24**	**2030**	Online		Balancing Pool; Dec/20 expiry
Genesee 3[2]	**466**	**13**	**2030**	Online		Merchant
Keephills 3[2]	**463**	**7**	**2030**	Online		Merchant

1) Current coal regulations under Climate Leadership Plan (Alberta).
2) Capital Power and TransAlta Corporation are 50% owners on Genesee 3 and Keephills 3.

Discretionary cash flow supports dividend growth target[1]

- **$400M** — Capital
- **$40M** — EBITDA
- **$29M[2]** — AFFO
- **7.7%** — AFFO Growth/Share
- **7%** — Dividend Growth

AFFO growth from discretionary cash flow covers 7% annual dividend growth without dilution to existing shareholders

1) Assumes a 10x EBITDA multiple and a capital structure of 50% DCF, and 50% debt issued at 4.5%. AFFO growth is compared to 2018 target midpoint of $380M.
2) AFFO includes a reduction of $2M from expected maintenance CAPEX.

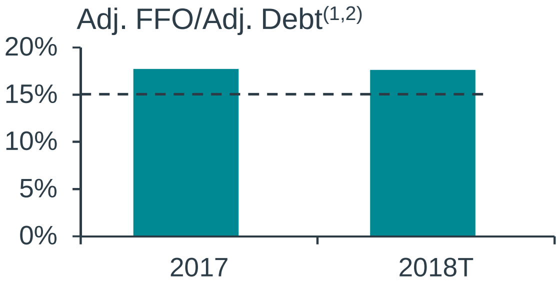
Financial strength

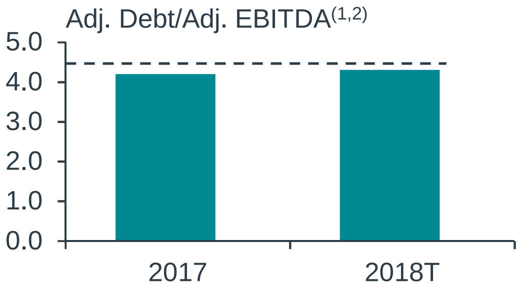
Strong balance sheet and investment grade credit rating

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

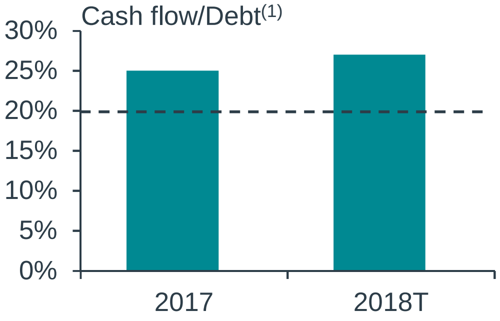
- Strong liquidity from cash flow from operations and $1B of committed credit facilities
- Well capitalized with capacity for leverage

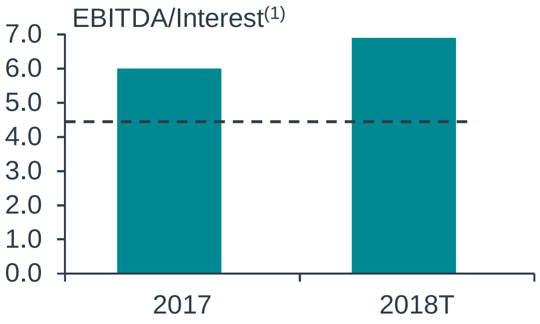
Within S&P financial criteria for investment grade rating





Within DBRS financial criteria for current rating



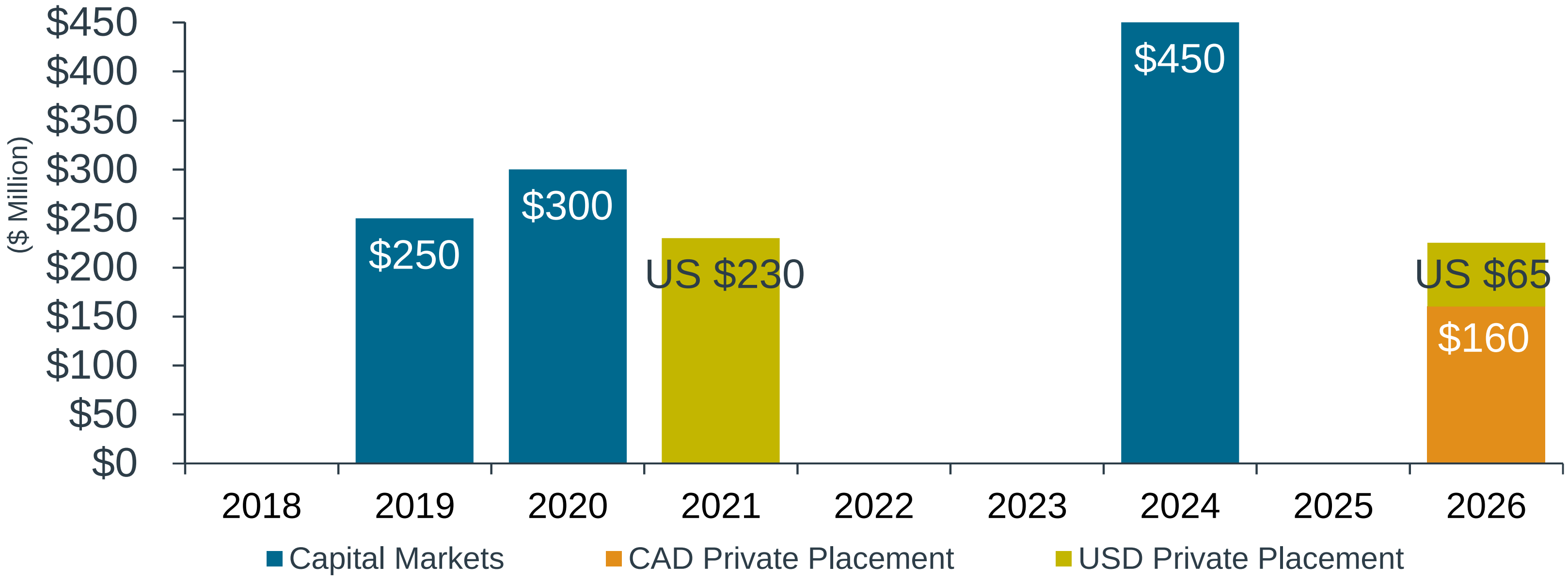


Committed to maintaining investment grade

1) Cash flow and adjusted EBITDA amounts include coal compensation.
2) Based on S&P's weighted average ratings methodology.

Debt maturity schedule[(1)]

~$1B in committed credit facilities renewed with 5-year tenor maturing 2023, of which approximately $775M is available[(1)]



Well spread-out debt maturities are supported by long asset lives

1) Debt amounts as of June 30, 2018 excludes non recourse debt, credit facility debt, and tax-equity financing. Amount available on credit facilities as of June 30, 2018.

Summary of assets

	Alberta Contracted		Alberta Commercial						
	Genesee 1	**Genesee 2**	**Genesee 3**	**Keephills 3**	**Joffre**	**Clover Bar Energy Centre**	**Clover Bar Landfill**	**Halkirk**	**Shepard Energy Centre**
Capacity	430 MW	430 MW	516 MW	516 MW	480 MW	243 MW	5 MW	150 MW	800 MW
% owned / operated	100 / 100	100 / 100	50 / 100	50 / 0	40 / 0	100 / 100	100 / 100	100 / 100	50% / 0%
Location	Warburg	Warburg	Warburg	Wabamun	Joffre	Edmonton	Edmonto n	Halkirk	Calgary
Fuel & equipment	Coal (50% ownership of coal mine)	Coal (50% ownership of coal mine)	Coal (50% ownership of coal mine)	Coal	Natural gas (Combined cycle cogeneration)	Natural gas (Two 100 MW GE LMS100 turbines; 43 MW GE LM6000)	Landfill gas	Vestas wind turbines	Natural gas (Combined cycle; two Mitsubishi G-Class natural gas turbines; steam turbine)
Commercial Operations	1994	1989	2005	2011	2000	Unit 1 in 2008; units 2&3 in 2009	2005	2012	2015
PPA Expiry	2020	2020	Merchant	Merchant	Primarily merchant with some revenues under contract	Merchant	Merchant	Large portion of total revenues from 20-year REC sale agreement / Merchant	20-year tolling agreement on 50% of Capital Power's output

Summary of assets

	Ontario & British Columbia Contracted								
	Island Generation	**Quality Wind**	**Savona**	**150 Mile House**	**Port Dover & Nanticoke**	**Kingsbridge 1**	**K2 Wind**	**York Energy**	**East Windsor**
Capacity	275 MW	142 MW	5 MW	5 MW	105 MW	40 MW	270 MW	400 MW	84 MW
% owned / operated	100 / 100	100 / 100	100 / 0	100 / 0	100 / 100	100 / 100	33.3% owned	50 / 100	100 / 100
Location	Campbell River, BC	Tumbler Ridge, BC	BC	BC	Counties of Norfolk and Haldimand, Ontario	Goderich, Ontario	Ashfield-Colborne-Wawanosh, Ontario	Township of King, Ontario	Windsor, Ontario
Fuel & equipment	Natural gas (Combined cycle - Alstom GT24B gas turbine & Alstom steam turbine)	Vestas wind turbines	Waste Heat	Waste Heat	Vestas wind turbines	Vestas wind turbines	Siemens wind turbines	Natural gas (Simple cycle; two Siemens SGT6-5000F combustion turbine generators)	Natural gas (Cogeneration; two GE LM 6000PD turbines)
Commercial Operations	2002	2012	2008	2008	2013	2006, 2001	2015	2012	2009
PPA Expiry	2022	2037	2028	2028	2033	2026 / 2027	2035	2032	2029

Summary of assets

	U.S. Contracted					
	Roxboro	**Southport**	**Macho Springs**	**Beaufort Solar**	**Decatur**	**Bloom Wind**
Capacity	46 MW	88 MW	50 MW	15 MW	795 MW	178 MW
% owned / operated	100 / 100	100 / 100	100 / 100	100 (sale & leaseback) / 100	100 / 100	100 / 100
Location	Roxboro, North Carolina	Southport, North Carolina	Luna County, New Mexico	Beaufort County, North Carolina	Decatur, Alabama	Ford and Clark Counties, Kansas
Fuel & equipment	Mixture of wood residuals, tire-derived fuel and coal	Mixture of wood residuals, tire-derived fuel and coal	Vestas wind turbines	Solar	Natural gas (Combined cycle; 3X1 CCGT Siemens 501FD2 combustion turbines)	Vestas wind turbines
Commercial Operations	1987	1987	2011	2015	2002	2017
PPA Expiry	2021	2021	2031	2030	2022	2027

Projects under development/construction

	Alberta Commercial	Alberta Contracted		U.S. Contracted	
	Genesee 4&5	**Halkirk 2**	**Whitla Wind (Phase I)**	**New Frontier Wind**	**Cardinal Point Wind**
Capacity	Up to 1,060 MW	150 MW	201.6 MW	99 MW	150 MW
% owned / operated	50 / 100	100 / 100	100 / 100	100 / 100	100 / 100
Location	Warburg	Halkirk	Medicine Hat	McHenry County, North Dakota	McDonough / Warren Counties, Illinois
Fuel & equipment	Combined-cycle natural gas (Mitsubishi J-Class natural gas turbine technology)	Wind	Wind	Wind (technology to be determined)	Wind (technology to be determined)
Commercial Operations	To be determined	To be determined	Q4 2019	December 2018	March 2020
PPA Expiry	8-year tolling arrangement with ENMAX for 50% of Capital Power's share of the output.		20-year contract-for-differences structured contract	12-year fixed price contract	12-year fixed price contract
Expected Capital Cost	$1.4B for total project (excluding interest during construction and refundable transmission system contribution payments)		$315M to $325M	$182M	$289M to $301M

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 its joint venture interests, and gains or losses on disposals (adjusted EBITDA), (ii) adjusted funds from operations, (iii) adjusted funds from operations per share, (iv) normalized earnings attributable to common shareholders, and (v) normalized earnings 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 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 June 27, 2018 for the second quarter of 2018, 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 this 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 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 includes expectations regarding:

- future revenues, expenses, earnings and adjusted funds from operations,
- 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,
- future growth and emerging opportunities in the Company's target markets including the focus on certain technologies,
- the timing of, funding of, and costs for existing, planned and potential development projects and acquisitions (including the New Frontier Wind project, phase 1 of Whitla Wind project and the Cardinal Point Wind project),
- facility availability and planned outages,
- capital expenditures for facility maintenance and other (sustaining capital, future growth projects),
- the impact of the transition to a capacity market on the Company's future growth projects including the Genesee 4 and 5 project,
- expectations around the Line Loss Rule Proceeding including timing of retrospective loss factors being finalized, participation in applicable appeal processes, and potential impacts to the Company, and
- impacts of future IFRS standards and amendments.

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. The material factors and assumptions used to develop these forward-looking statements relate to:

- electricity and other energy and carbon prices,
- performance,
- business prospects and opportunities including expected growth and capital projects,
- status of and impact of policy, legislation and regulations,
- effective tax rates, and
- other matters discussed under the Performance Overview and Outlook 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 prices in markets in which the Company operates,
- changes in energy commodity market prices and use of derivatives,
- regulatory and political environments including changes to environmental, financial reporting, market structure and tax legislation,
- generation facility availability and performance including maintenance of equipment,
- 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 market prices and availability of fuel, and
- changes in general economic and competitive conditions.

See Risks and Risk Management in the Company's December 31, 2017 annual MD&A 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.

Investor Relations

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Common Shares

- TSX Symbol: CPX
- S&P/TSX Index Inclusions: Composite, SmallCap, Capped Utilities
- Shares Outstanding: 103 million
- Market Cap: $2.8 billion
- Average Daily Trading Volume: 404,000 shares