



2017 Energy Conference  
September 14, 2017

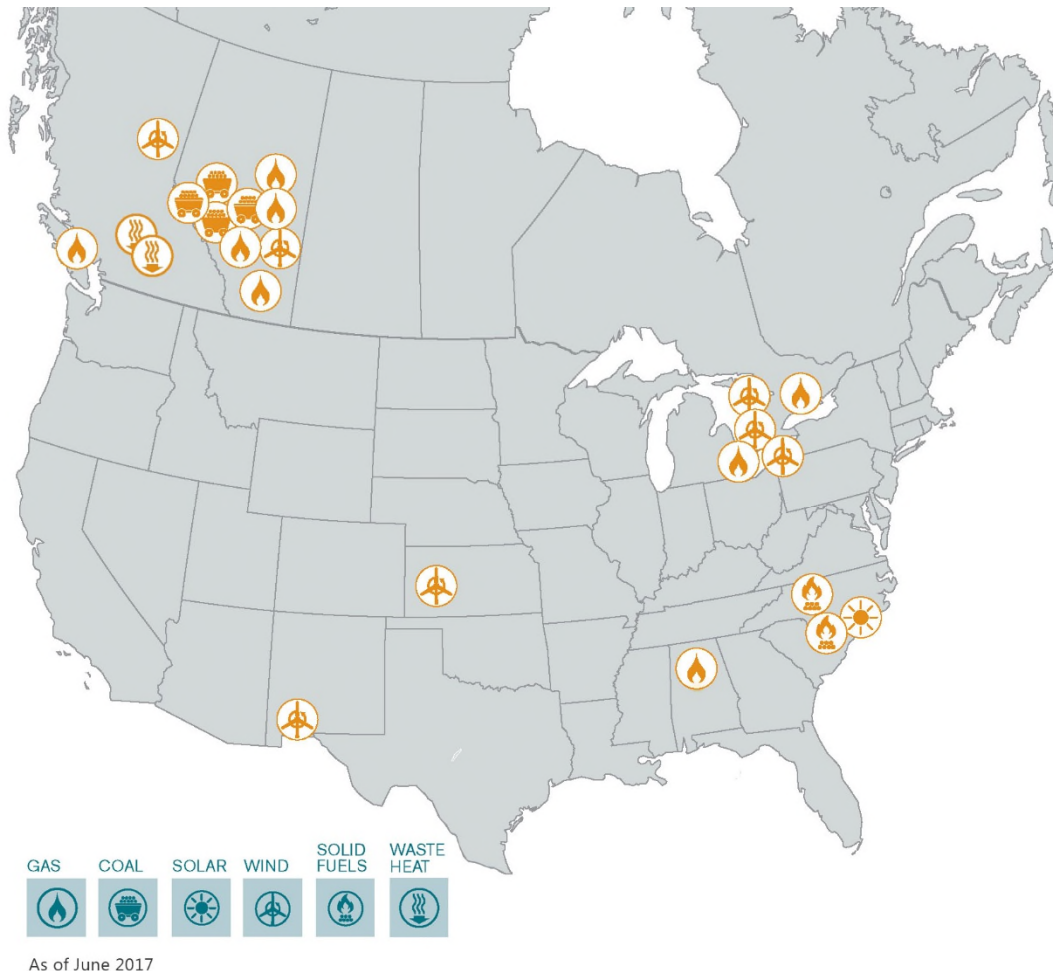
**Bryan DeNeve**  
**Senior VP Finance & CFO**





# Capital Power overview

- Growth-oriented North American IPP with ownership interest in 24 facilities in Canada and the U.S. totaling ~4,500 MW
- Young fleet with an average facility age of 12.8 years<sup>(1)</sup>
- Strong balance sheet and financial flexibility to fund growth
- Annual 7% dividend growth<sup>(2)</sup> to 2020 supported by growth in contracted Adjusted EBITDA
- TSX (CPX); market cap of \$2.7B<sup>(3)</sup>; average daily trading of 505K<sup>(3)</sup> shares



1) Average age based on megawatt capacity weighting.

2) Subject to Board approval.

3) Market capitalization as of August 31/17. Average daily trading for 12-month period ending August 31/17.

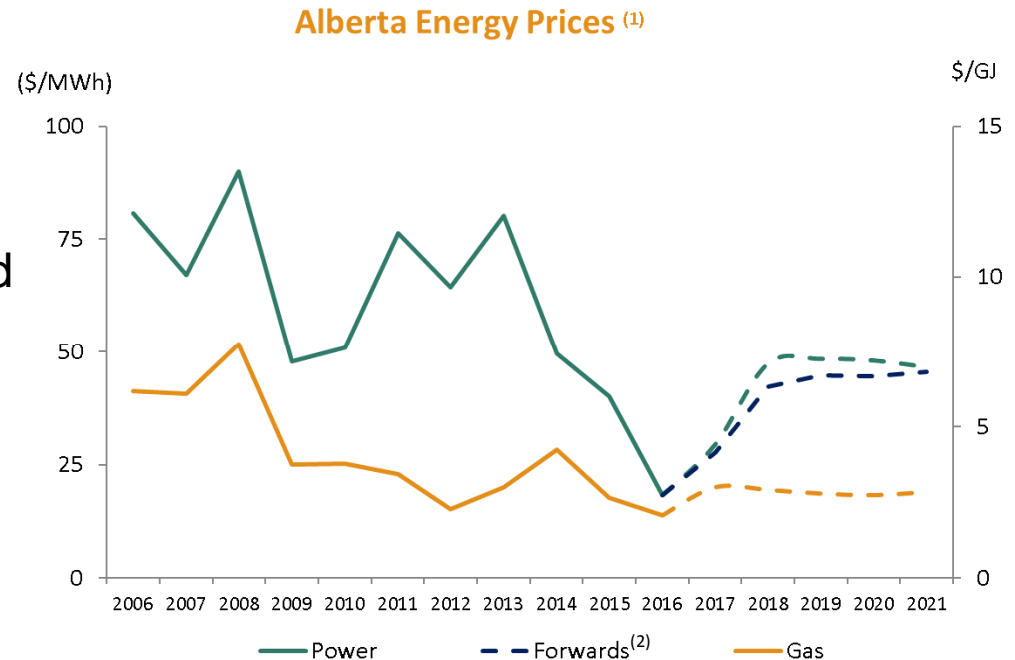
# Alberta market forecasts

## Current low power price environment

- Oversupply in the market
- Lower demand from weak AB economy
- Low natural gas prices

## Expected uplift in power prices

- Announced early retirements and mothballing of coal-fired units
- Demand growth recovering
- Pass-through of higher environmental compliance costs
- Mandated coal retirements near the end of this decade



1) Power and gas forecasts represent the average forecasts of three leading 3rd party consulting firms as of Summer 2017.

2) Forwards as of Sept 2017.

# Alberta's coal fleet

*Retirements under federal & provincial regulations and conversion to gas*

	Facility	AESO max capacity (MW)	Age in 2017 (years)	End of coal life (CST & CLP) <sup>(1)</sup>	Expected Life (coal to gas conversion)
Subcritical Old	Battle River 3	149	48	2019	Decommissioned
	Sundance 1	288	47	Jan 1/18	Decommissioned
	H.R. Milner	144	45	May 1/17	Decommissioned
	Sundance 2	288	44	Jan 1/18	Moth-balled for up to 2 years
	Battle River 4	155	42	2025	2021 –
	Sundance 3	368	41	2026	2021/23 – mid-2030
	Sundance 4	406	40	2027	2021/23 – mid-2030
	Sundance 5	406	39	2028	2021/23 – mid-2030
Subcritical New	Sundance 6	401	37	2029	2021/23 – mid-2030
	Battle River 5	385	36	2029	2021 –
	Keephills 1	395	34	2029	2021/23 – mid-2030
	Keephills 2	395	33	2029	2021/23 – mid-2030
	Sheerness 1	400	31	2030	2021 –
	<b>Genesee 2</b>	<b>400</b>	<b>28</b>	<b>2030</b>	<b>2031 – 2045</b>
	Sheerness 2	390	27	2030	2021 –
	<b>Genesee 1</b>	<b>400</b>	<b>23</b>	<b>2030</b>	<b>2031 – 2045</b>
Supercritical	<b>Genesee 3<sup>(2)</sup></b>	<b>466</b>	<b>12</b>	<b>2030</b>	<b>2031 – 2045</b>
	<b>Keephills 3<sup>(2)</sup></b>	<b>463</b>	<b>6</b>	<b>2030</b>	

1) Current coal regulations under Capital Stock Turnover (Federal) and Climate Leadership Plan (Alberta).

2) Capital Power and TransAlta Corporation are 50% owners on Genesee 3 and Keephills 3.

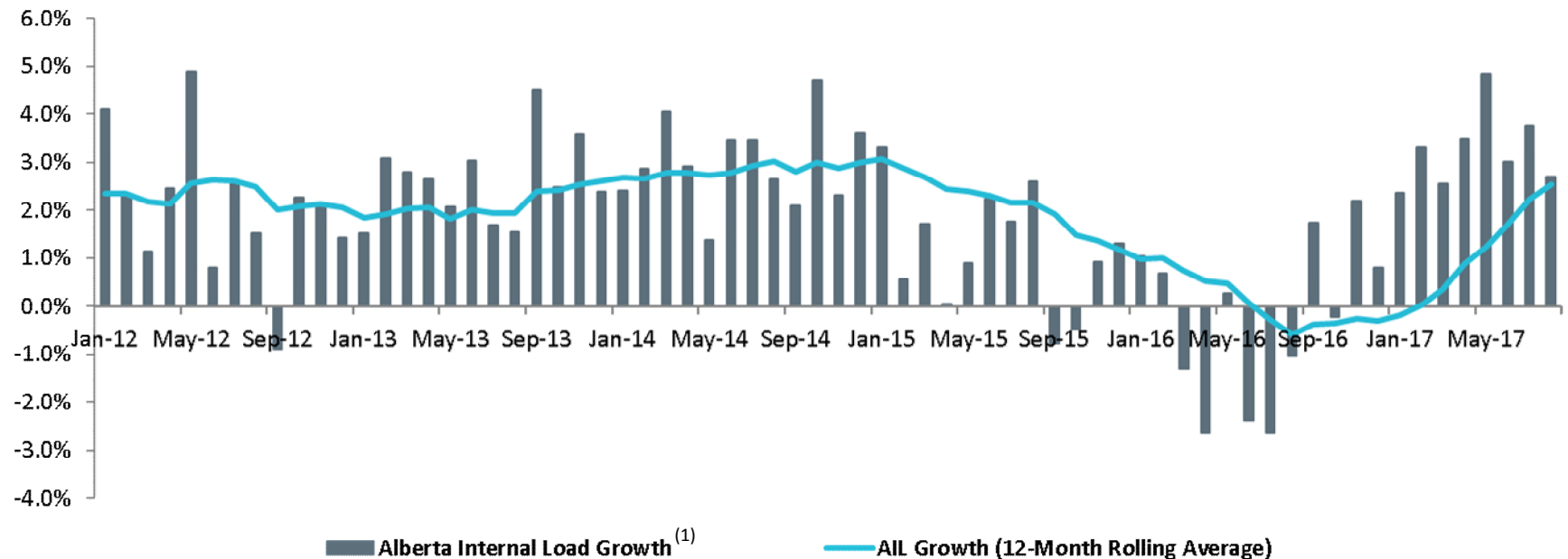
# Alberta demand

## Alberta demand showing recovery

- Ten consecutive months (Nov 2016 – Aug 2017) of positive normalized load growth; continues to show signs of recovery
- Average normalized growth in Q2/17 is the highest quarter since 2012

### Alberta Load Growth <sup>(1)</sup>

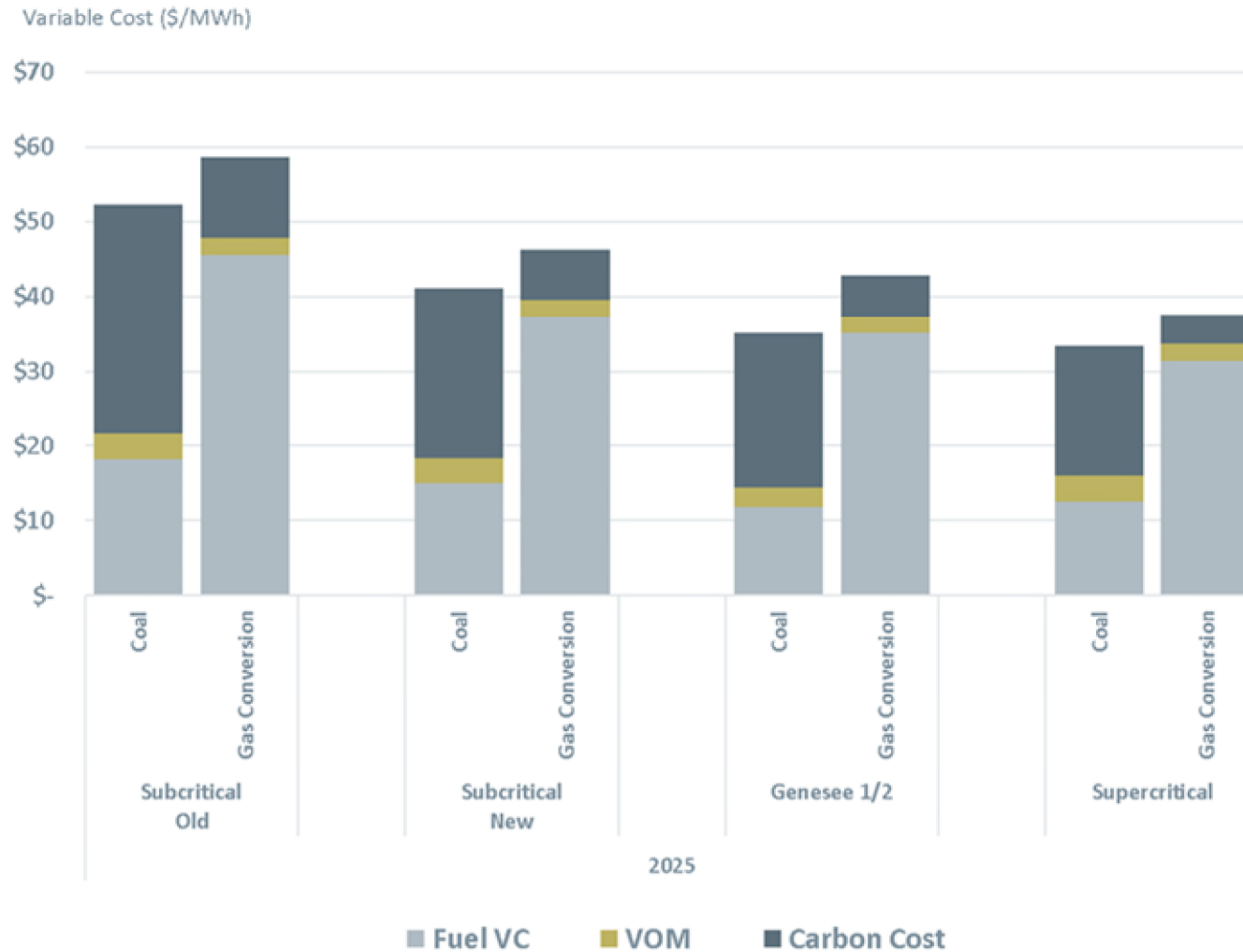
AIL Growth (%)



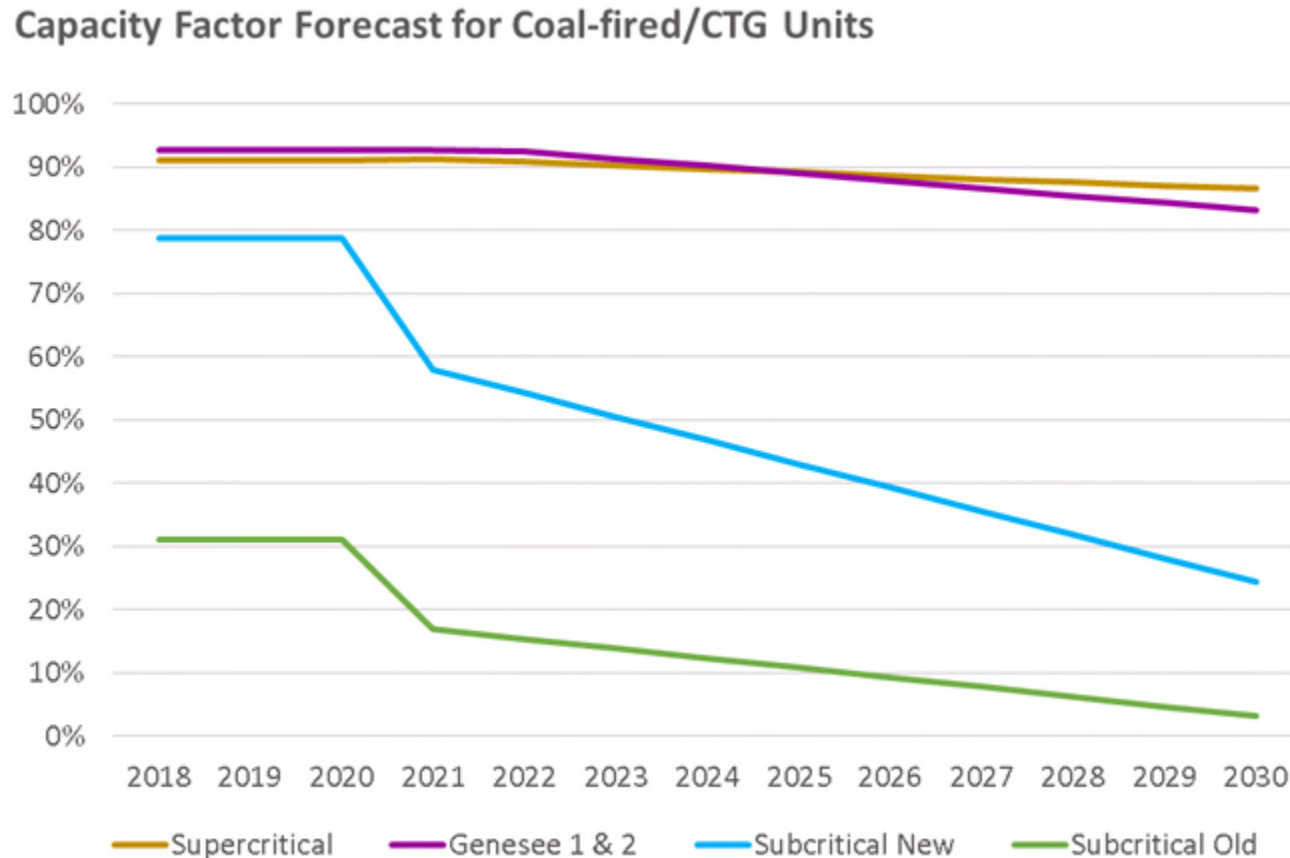
1) Alberta Internal Load normalized for weather and impact of Fort McMurray fires in 2016. Source: Capital Power.

# Changes in variable costs

Components of Variable Cost for Coal Unit - \$30 Carbon Levy



# Capacity factor forecast for coal & converted coal units



***Capital Power's youngest coal units not expected to be materially impacted by addition of renewables***

# Coal-to-gas conversion

## Genesee will continue to be an industry leading generation facility

- Decision on timing of converting coal units to gas depends on carbon and natural gas pricing, supply-demand balance, regulatory framework for converted units, and capacity market design
- Genesee facility has competitive advantages (young age, condition, availability and heat rate) that are maintained after gas fuel conversion, with the efficiency translating into higher dispatch
- Estimated cost for simple gas conversion is \$25M-\$50M/unit
- 12-18 month lead time required; 2 months downtime for facility
- Significantly lower O&M cost expected post gas conversion



*Efficient coal plants leads to efficient natural gas plants*



# Alberta opportunity set

## Significant investment required over the next 13 years

- Up to \$20 billion
- Phase-out of coal facilities by end of 2030 or earlier
- 5,000 MWs in renewables to replace retirement of coal units with balance in natural gas and other to meet demand
- Capital Power well-positioned with our existing power sites, development and construction expertise, and strong track record of trading in Alberta



*Well-positioned to participate in new generation*

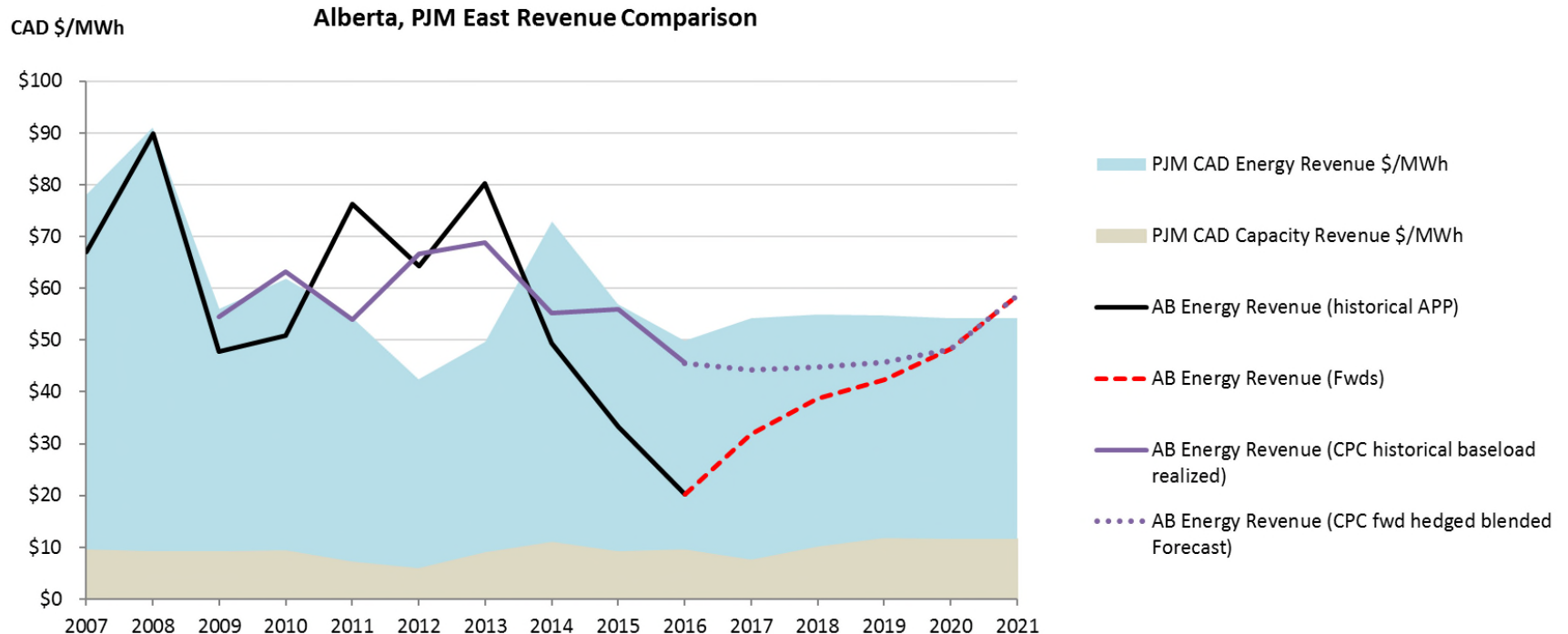
# Alberta power market design change

## Transition to a capacity market from energy-only market

- Government committed to ensuring existing investments would be treated fairly, and new market framework would continue to promote a level playing field between existing and potential new capacity
- Tremendous amount of detail to work out on market design
  - Five working groups providing feedback on key design elements based on a straw model that is being iterated (Jun/17 – Jun/18); Capital Power is participating in 4 of the 5 working groups
  - Properly designed and implemented, Capital Power should be able to realize on its proven competencies in the new market
- Government of Alberta's schedule continues to be on-track
  - Design to be formalized late 2018/early 2019
  - Expect first capacity auction in 2019 for delivery in 2021
- Generally positive for coal and natural gas conversions

# Capacity market

## Baseload revenue – Alberta vs. PJM



- Capacity market creates a more stable revenue stream relative to selling into the Alberta market
- Revenue under the Alberta energy only market for the period of 2009 through 2021 is \$57/MWh for Capital Power's baseload assets (including trading gains) compared to \$55/MWh in the PJM capacity market



# {Investor Relations Contact

Randy Mah  
Senior Manager  
(780) 392-5305  
[rmah@capitalpower.com](mailto:rmah@capitalpower.com)

10423 101 Street NW  
10<sup>th</sup> Floor  
Edmonton, Alberta  
Canada, T5H 0E9  
[www.capitalpower.com](http://www.capitalpower.com)