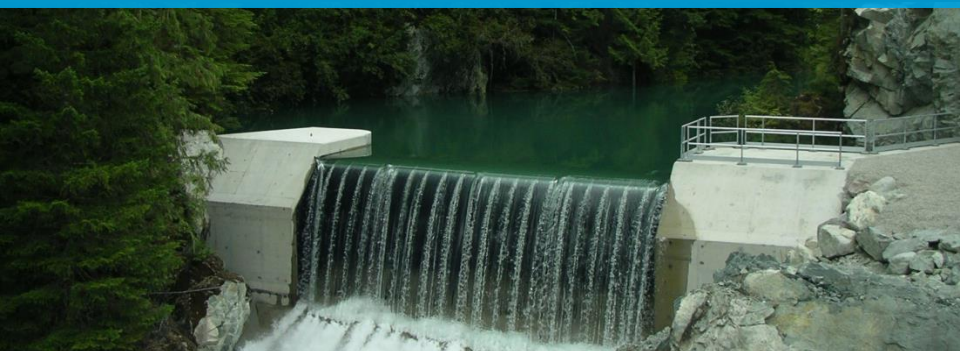




TransAlta Renewables Inc.
Investor Presentation
January 2017



Forward Looking Statements

This presentation may include forward-looking statements or information (collectively referred to herein as “forward-looking statements”) within the meaning of applicable securities legislation. All forward-looking statements are based on TransAlta Renewables Inc.’s (“the Company”) beliefs as well as assumptions based on information available at the time the assumptions were made and on management’s experience and perception of historical trends, current conditions, and expected future developments, as well as other factors deemed appropriate in the circumstances. Forward-looking statements are not facts, but only predictions and generally can be identified by the use of statements that include phrases such as “may”, “will”, “believe”, “expect”, “anticipate”, “intend”, “plan”, “project”, “foresee”, “potential”, “enable”, “continue”, or other comparable terminology. These statements are not guarantees of the Company’s future performance and are subject to risks, uncertainties, and other important factors that could cause our actual performance to be materially different from that projected. In particular, this presentation contains forward-looking statements pertaining to, without limitation, the following: dividend per share growth; comparable EBITDA for 2016; comparable cash available for distribution for 2016; payout ratio; financing plans; the timing and costs associated with commissioning the South Hedland Power Project and the expected EBITDA to be generated from South Hedland; the Company’s medium term priorities, including issuing long-term debt to repay credit facilities and pursuing additional growth; anticipated \$400 to \$600 million of additional borrowing capability on existing assets; TransAlta Corporation maintaining its position as the majority shareholder or sponsor; the continued alignment of interests between TransAlta Corporation and the Corporation; and the potential drop-down of additional assets from TransAlta Corporation.

These forward-looking statements are not historical facts but reflect current expectations concerning future plans, actions and results. These statements are subject to a number of risks and uncertainties that could cause actual plans, actions and results to differ materially from current expectations including, but not limited to: changes in tax, environmental, and other laws and regulations; the regulatory and political environments in the jurisdictions in which we operate; adverse regulatory developments, including unanticipated impacts on existing generation; environmental requirements and changes in, or liabilities under, these requirements; changes in general economic conditions including interest rates; operational risks involving our facilities, including unplanned outages at such facilities; disruptions in the transmission and distribution of electricity; the effects of weather; disruptions in the source of fuels, water, or wind required to operate our facilities; competitive factors in the power industry; operational breakdowns, failures, or other disruptions; changes in economic and market conditions; and other risks and uncertainties discussed in the Company’s materials filed with the Canadian securities regulatory authorities from time to time and as also set forth in the Company’s MD&A and 2016 Annual Information Form for the year ended December 31, 2015. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect the Company’s expectations only as of the date of this presentation. The purpose of the financial outlooks contained herein is to give the reader information about management’s current expectations and plans and readers are cautioned that such information may not be appropriate for other purposes. The Company disclaims any intention or obligation to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law

The Company evaluates its performance and the performance of our business segments using a variety of measures. Certain of the financial measures discussed in this presentation are not defined under International Financial Reporting Standards (IFRS) and, therefore, should not be considered in isolation or as an alternative to IFRS measures when assessing the financial performance or liquidity of the Company. These non-IFRS measures may not be comparable to similar measures presented by other issuers and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. Refer to the Company’s MD&A, which is available on the Company’s website or under the Company’s profile on www.sedar.com for further discussion of these items, including, where applicable, reconciliations to measures calculated in accordance with IFRS.

Unless otherwise specified, all dollar amounts are expressed in Canadian dollars.

Leading Power Energy Infrastructure Company

- Diversified asset base with 40 facilities spanning multiple regions
- Highly contracted portfolio – weighted average contract life of 15 years
- Prudent payout ratio of 80% to 85% of Comparable CAFD¹
- Proven track record for growth
- Solid balance sheet
- Strong sponsorship from TransAlta Corporation



¹ Comparable cash available for distribution (Comparable CAFD) refers to the amount of cash generated from operations after deducting sustaining capital and distributions to non-controlling interests, excluding the effects of timing and working capital on distributions from subsidiaries of TransAlta in which the Company holds an economic interest and less principal repayments of amortizing debt.

TransAlta Renewables (TSX:RNW)

Provides stable and consistent returns for investors through the ownership of highly contracted power generation and other infrastructure assets

Enterprise Value ¹	\$4.6 billion
Market Cap. ²	\$3.6 billion
2016 Comparable EBITDA (guidance)	\$365 - \$390 million
2016 Comparable CAFD (guidance)	\$210 - \$235 million
Dividend Yield	6.1%
Expected Near-Term Dividend Growth (once South Hedland is commissioned in 2017)	6% - 7%
TransAlta Corporation's Ownership ³	64%

¹ Does not include capital required to complete South Hedland Project

² Based on December 30, 2016 closing share price (\$14.34) and including Class B shares

³ Including Class B shares

Our Platform

- Highly diversified portfolio including over 2,600 MW of generating capacity

North American Gas and Renewables



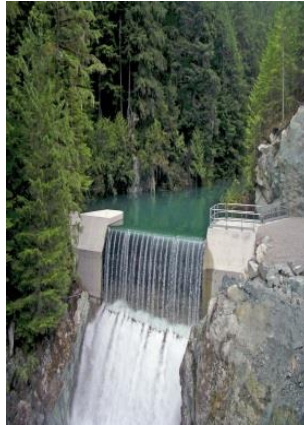
Gas Fired

506 MW
1 facility



Wind

1,248 MW
18 facilities



Hydro

112 MW
13 facilities

Australian Gas



Gas Fired

575 MW
7 facilities



Gas Pipeline

270 KM
43% interest

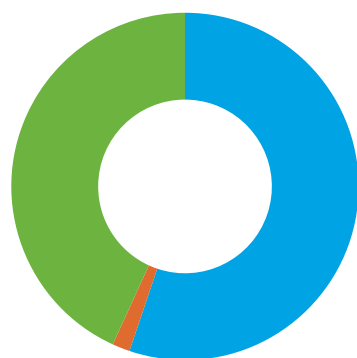
Note: Segmented capacity reflects net capacity ownership interest

Diversified Asset Platform and Customer Base

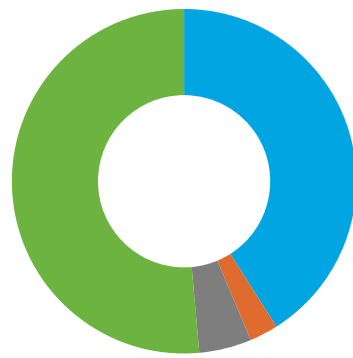
Significant Diversification by Geography, Technology and Counterparty

Significant Diversification¹

Highly diversified cash flows from 40 operating sites in Canada, the US and Australia



■ Canada ■ U.S. ■ Australia



■ Wind ■ Pipeline
■ Hydro ■ Gas-Fired

¹ Based on EBITDA contribution including the estimated contribution for a full year of operations from the South Hedland Power Station

High Quality Counterparties



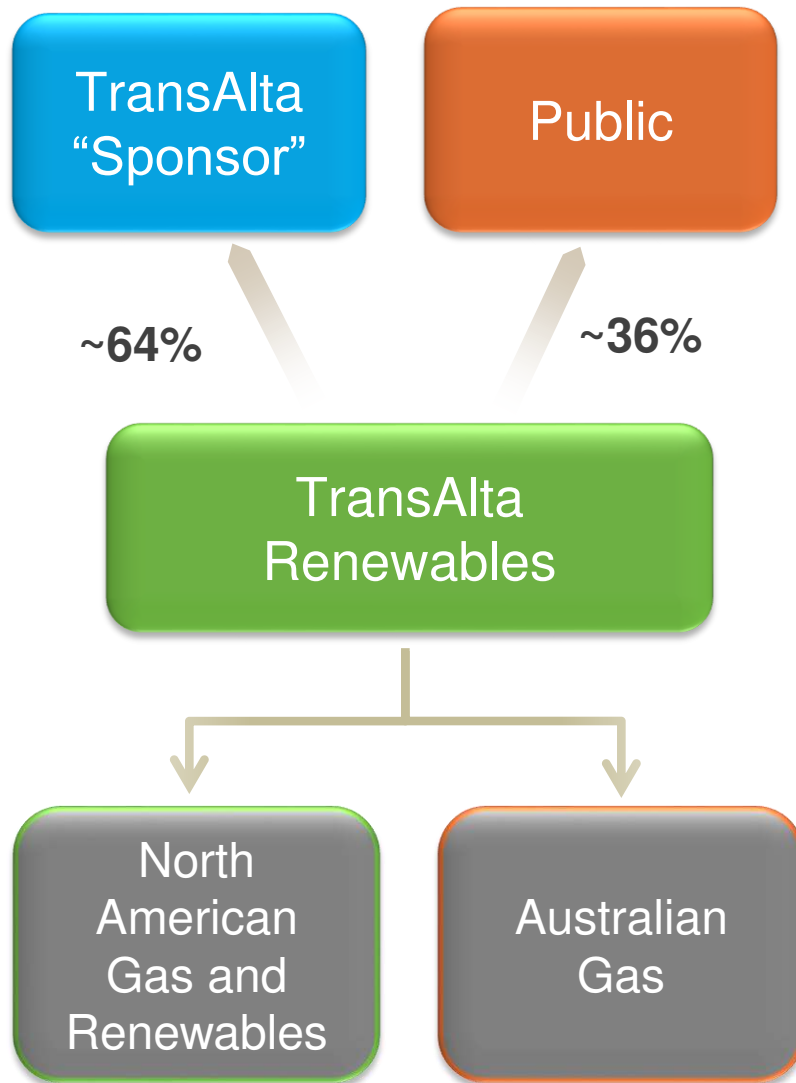
Énergie NB Power



Fortescue
The New Force in Iron Ore



Experienced and Fully Aligned Sponsor



- TransAlta, as sponsor and majority shareholder, is committed to the success of TransAlta Renewables
- Highly experienced operator and developer

TransAlta Corporation and TransAlta Renewables' interests are aligned

Strong Performance Since IPO

- Delivered solid financial and operational performance
- Added ~\$2.4 billion in new assets
- Significantly increased dividend and public float
- Added to the S&P/TSX Composite Index in March 2016
- Completed approximately \$600 million of project level financing in 2015/16



Proven Track Record for Growth

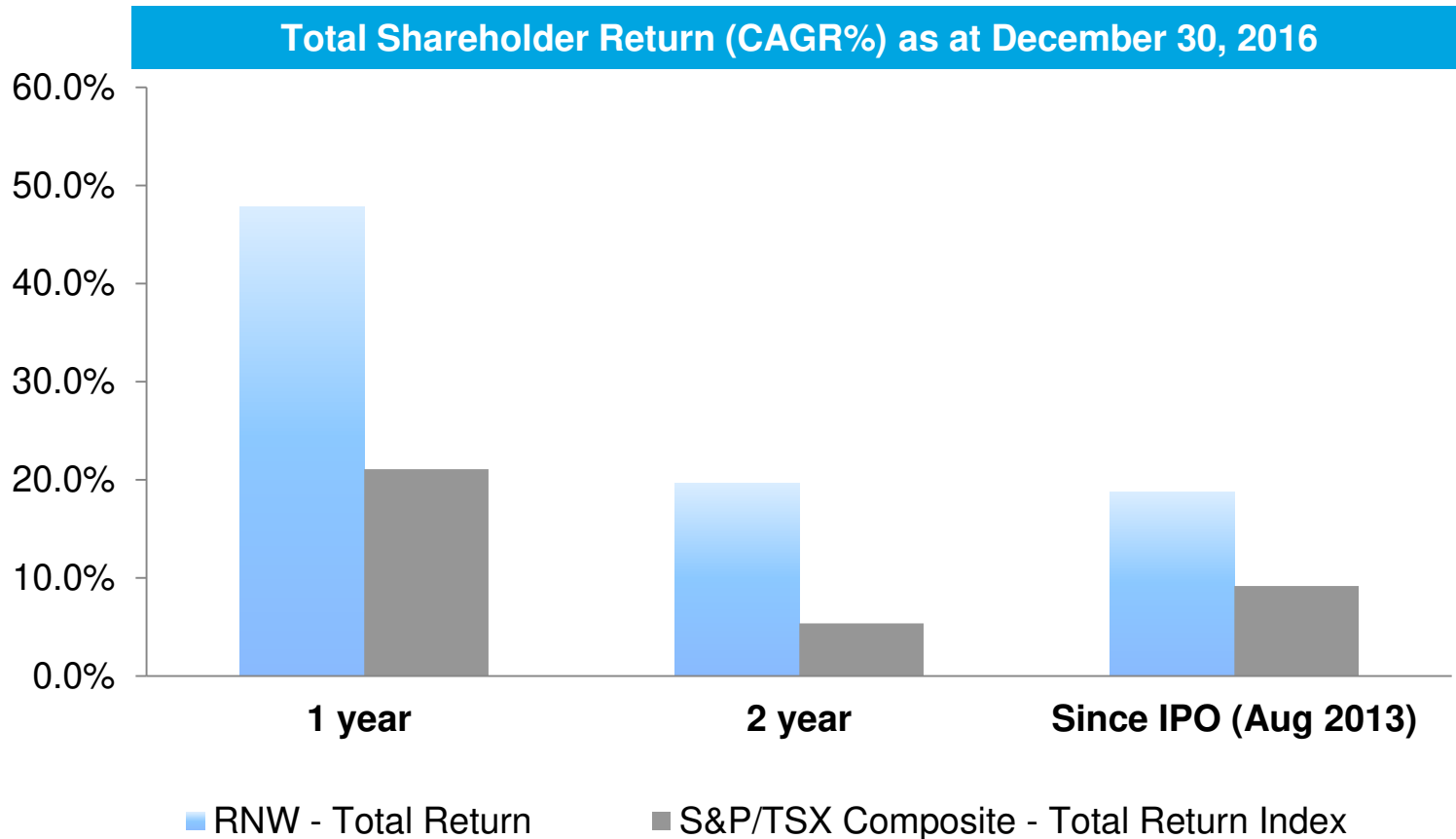
- Solid track record of growth has supported dividend increases of approximately 25% since IPO in 2013

2014			
Wyoming	144 MW	Wind	Acquisition from NextEra
Australian portfolio	575 MW	Gas	Acquisition from TransAlta
2015			
Sarnia	506 MW	Gas	Acquisition from TransAlta
Le Nordais	98 MW	Wind	Acquisition from TransAlta
Ragged Chute	7 MW	Hydro	Acquisition from TransAlta

Note: RNW's investment in the Wyoming, Australian, Sarnia, Le Nordais and Ragged Chute facilities consist of the acquisition of an economic interest.

Attractive Total Shareholder Return

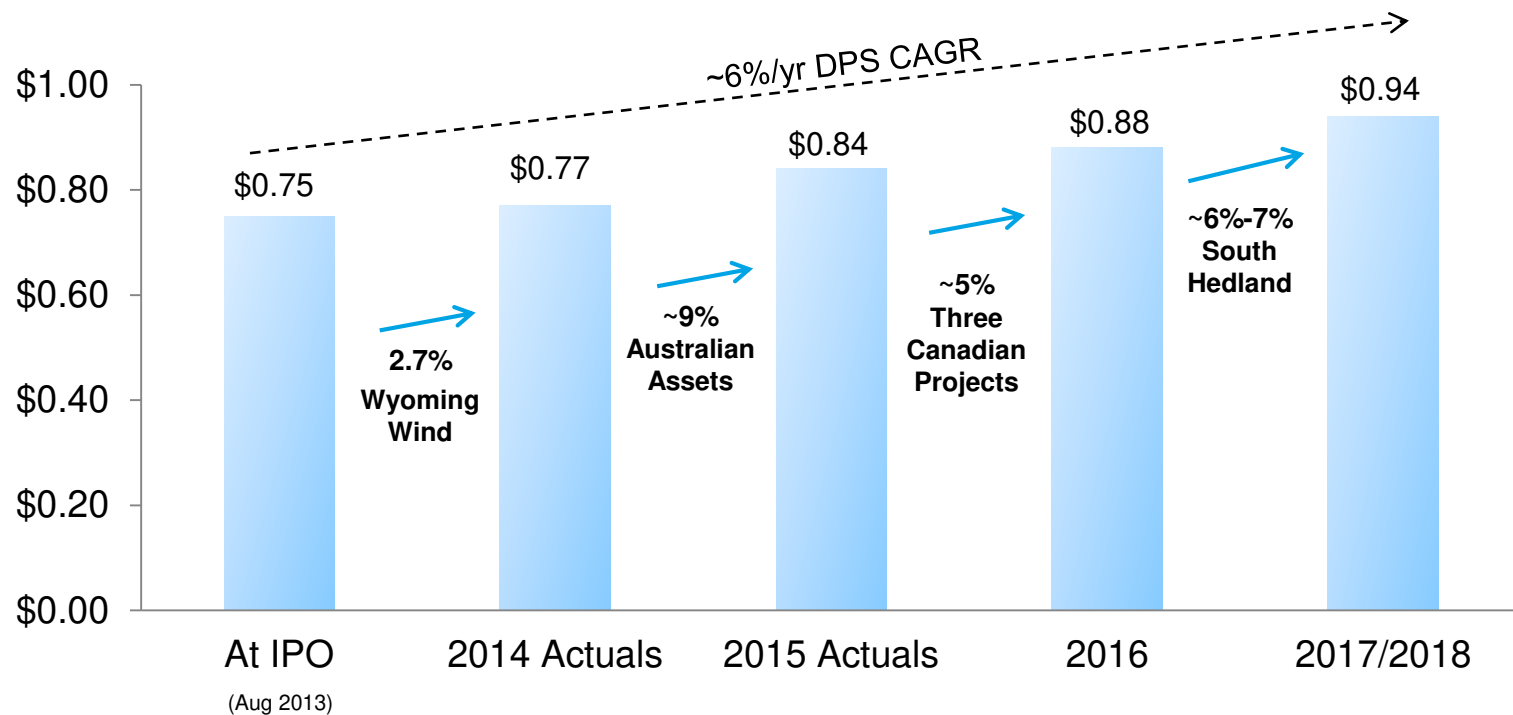
- TransAlta Renewables has delivered attractive Total Shareholder Return relative to the broader index



Source: NASDAQ, assuming the reinvestment of all dividends

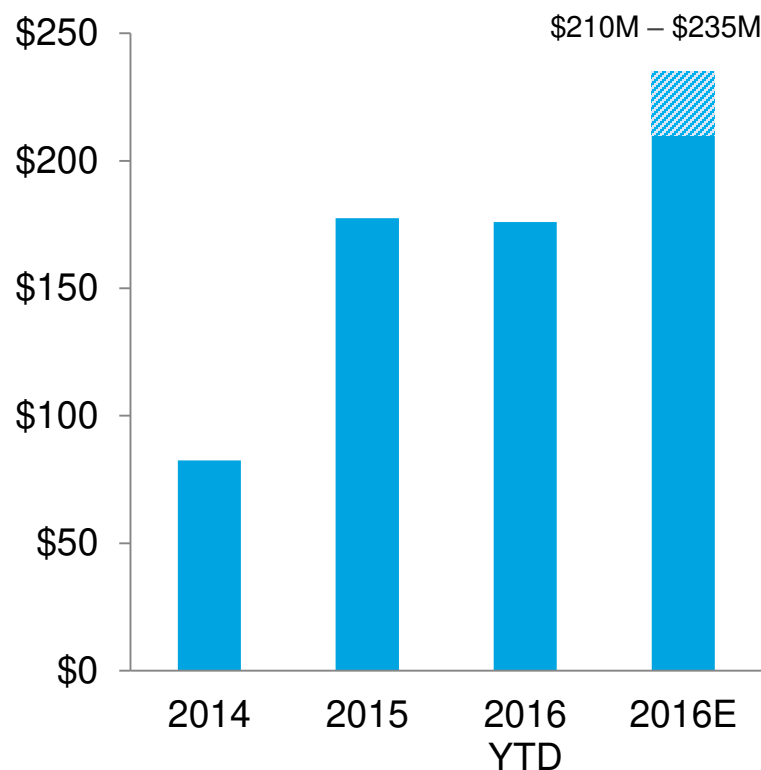
Accretive Acquisitions Have Driven Significant Dividend Growth

Estimated Dividend per Share Growth

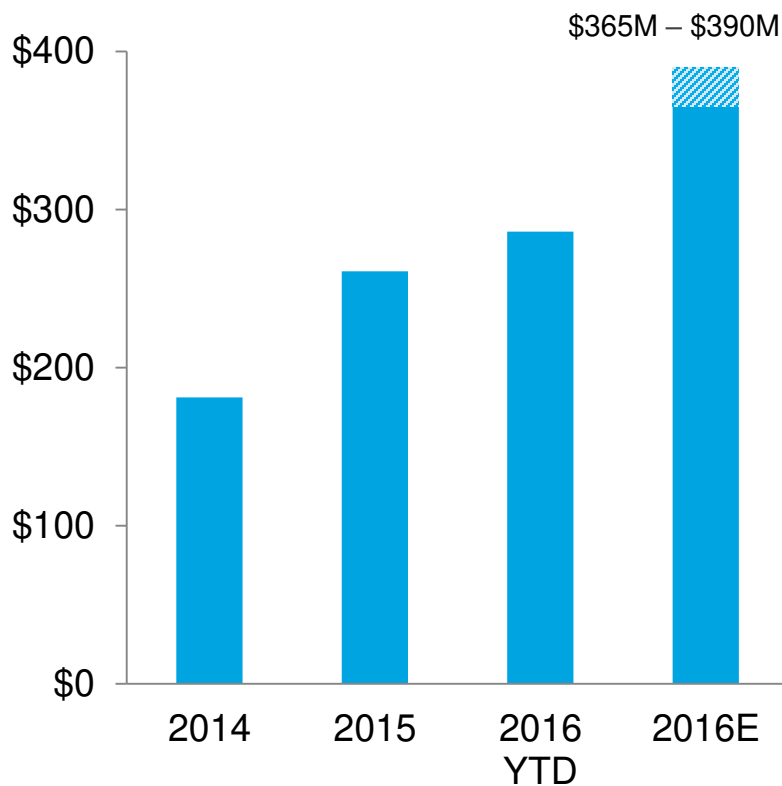


Significant Increase in EBITDA and CAFD

Comparable CAFD¹ (\$M)



Comparable EBITDA (\$M)



¹ Comparable Cash Available for Distribution (Comparable CAFD) refers to the amount of cash generated from operations after deducting sustaining capital and distributions to non-controlling interests, excluding the effects of timing and working capital on distributions from subsidiaries of TransAlta in which the Company holds an economic interest and less principal repayments of amortizing debt.

* Outlook based on expected revenues from PPAs/sale of green attributes. Renewable energy production from wind/hydro assets expected to range from 3,500 to 3,850 GWh including economic interests acquired in Jan. 2016. Gas-fired generation provides compensation for capacity and production is not a significant indicator of this business.

Stable and Sustainable Cash Flows

- Cash flow diversification through number of assets, regions and counterparties
- Prudent payout ratio target of 80 – 85%
- Foreign exchange risk hedged
- Credit risk management through guarantees, letters of credit and wholesale credit insurance programs
- TransAlta Corporation retains schedule and cost risks of South Hedland greenfield project
- Future financing plans to align with long-term nature of assets

South Hedland Power Station

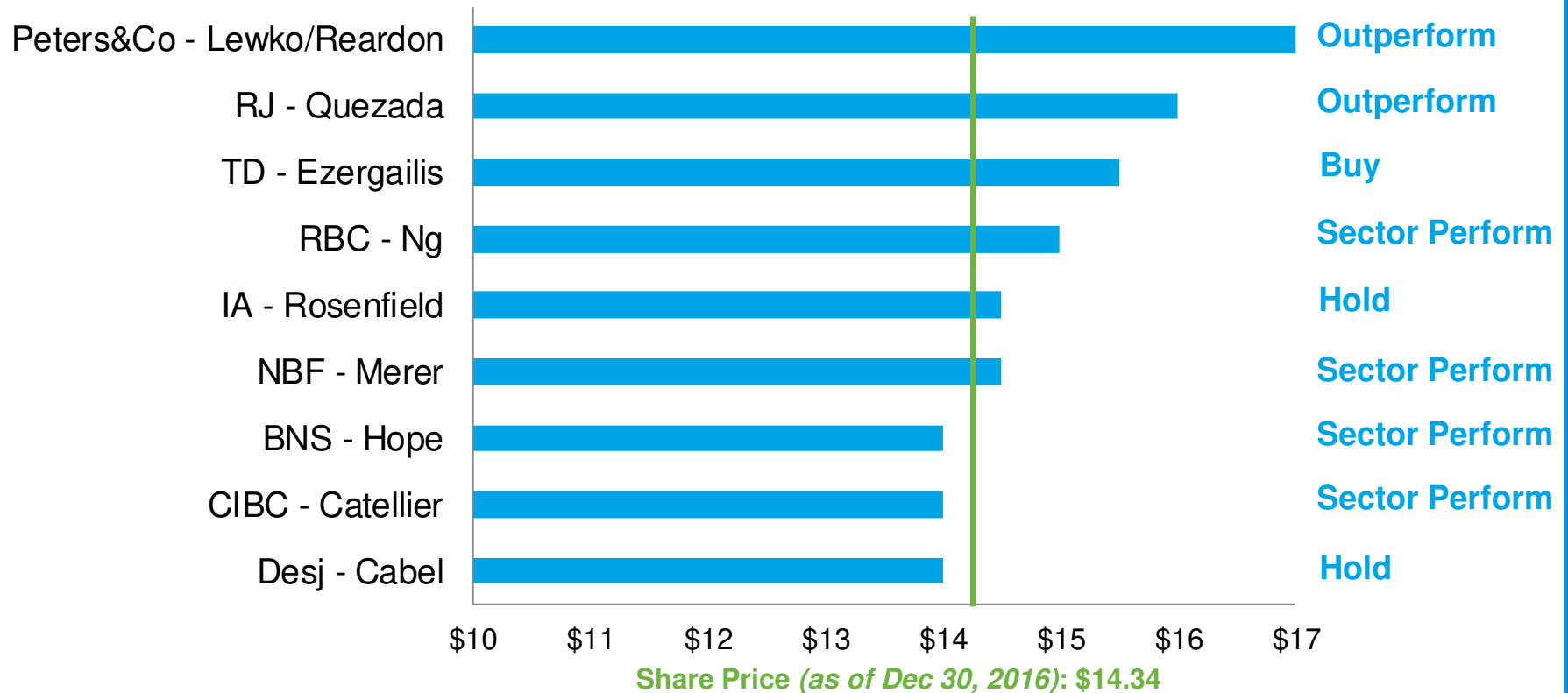
150 MW Combined Cycle Gas Power Station in Western Australia

- Fully contracted until 2042 with strong counterparties including 75% contracted with Horizon Power (AA+ rating)
- Commissioning expected in mid-2017
- Expected to generate ~\$80 million of EBITDA on an annualized basis

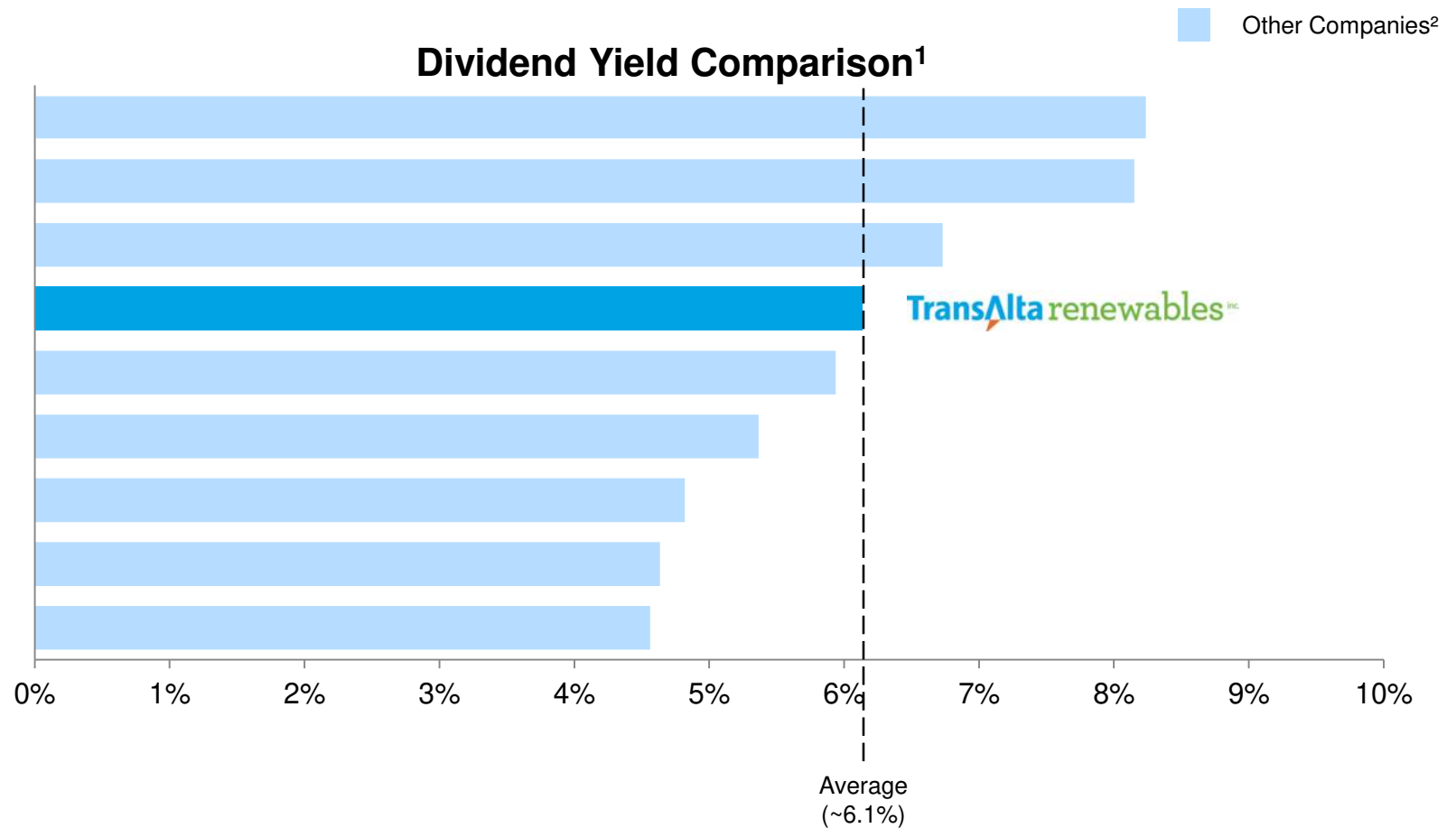


Current Research Analysts' Target Prices

Research Analysts' Share Price Targets



TransAlta Renewables Trading at an Attractive Dividend Yield



¹ Based on the closing price as of December 30, 2016.

² Other companies include Algonquin Power, Brookfield Renewables, Enbridge Income Fund, Innergex, Northland Power, NRG Yield, NextEra Energy Partners, Pattern Energy.

Medium Term Priorities

- Issue long-term project debt to repay credit facilities (~\$50M), fund the remaining construction of South Hedland (~\$300M), and refinance upcoming maturities (~\$200M)
 - Completed \$159 million of project level financing in June 2016
- Commission South Hedland on time, on budget
- Pursue additional growth through third party acquisitions/additional drop-downs from TransAlta Corporation
- Continue to deliver solid operational results and pursue high returning productivity improvements

Significant Drop-Down Inventory

~1,300 MWs of Potential Drop-Down Candidates from TransAlta Corporation

Gas Fired Generation



- ~400 MW in Alberta & Ontario including:
 - 230 MW Poplar Creek facility in AB
 - ~150 MW from 4 facilities through TA Cogen

Alberta Hydro



- ~800 MW from 13 units in Alberta, representing 90% of Alberta's hydro

Other Renewables



- 20 MW wind facility in ON
- 50 MW wind facility in Minnesota
- 21 MW solar facilities in Massachusetts

Investment Highlights

- Scale and diversification
- High quality assets and proven technology
- Long-term contracted portfolio
- Attractive yield and strong balance sheet
- Long term alignment with TransAlta as a sponsor and majority shareholder
- Well positioned to grow with an anticipated \$400 to \$600 million of additional borrowing capability on existing assets

