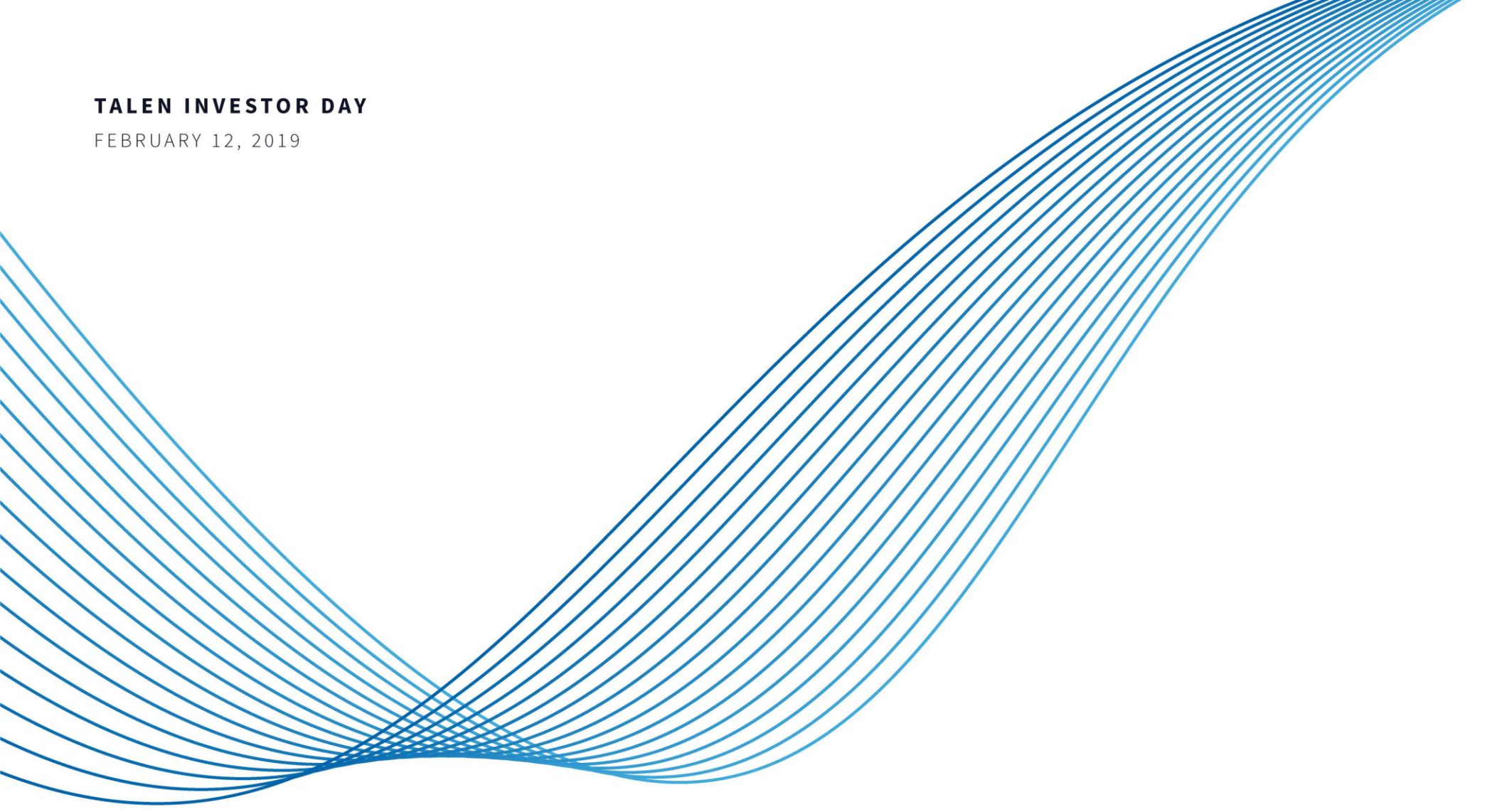


TALEN INVESTOR DAY

FEBRUARY 12, 2019



BUILDING OUR FUTURE




Forward Looking Statement


Statements contained in this presentation concerning expectations, beliefs, plans, objectives, goals, strategies, future events or performance and underlying assumptions and other statements that are not statements of historical fact are “forward-looking statements.” These statements often include words such as “believe,” “expect,” “anticipate,” “intend,” “plan,” “estimate,” “target,” “project,” “forecast,” “seek,” “will,” “may,” “should,” “could,” “would” or similar expressions. Although Talen Energy believes that the expectations and assumptions reflected in these statements are reasonable, there can be no assurance that these expectations or forecasts of future performance will prove to be correct. Forward-looking statements are subject to many risks and uncertainties, and actual results may differ materially from the results discussed in forward-looking statements. In addition to the specific factors discussed in “Significant Business Risks” in our financial statements, the following are among the important factors that could cause actual results to differ materially from the forward-looking statements: Talen Energy’s or its subsidiaries’ levels of indebtedness; the terms and conditions of debt instruments that may restrict Talen Energy’s ability to operate its business; operational, price and credit risks in the wholesale and retail electricity markets; adverse economic conditions; changes in commodity prices and related costs; the effectiveness of Talen Energy’s risk management techniques, including hedging, with respect to electricity and fuel prices, interest rates and counterparty credit and non-performance risks; methods of accounting and developments in or interpretations of accounting requirements that may impact reported results, including with respect to, but not limited to, hedging activity; Talen Energy’s ability to forecast the actual load needed to perform full-requirements sales contracts; weather conditions; disruptions in fuel supply; circumstances that may impact the levels of coal inventory that Talen Energy holds (e.g., a decline in the price of natural gas that results in Talen Energy reducing or idling coal-fired generating facilities in favor of operating available alternative natural gas-fired generating facilities); the performance of transmission facilities and any changes in the structure and operation of, or the pricing limitations imposed by, the Regional Transmission Organization (“RTOs”) and Independent System Operators (“ISOs”) that operate those facilities; blackouts due to disruptions in neighboring interconnected systems; competition in the power generation market, including in the expansion of alternative sources of electricity generation and in the development of new projects, markets and technologies; federal and state legislation and regulation, including costs to comply with governmental permits and approvals; costs of complying with environmental and related worker health and safety laws and regulations; the impacts of climate change; the availability and cost of emission allowances; changes in legislative and regulatory policy, including the promotion of renewable energy, energy efficiency, conservation and self-generation; security and safety risks associated with nuclear generation; the performance of Talen Energy’s subsidiaries and affiliates, on which its cash flow and ability to meet its debt obligations largely depend; the risks inherent with variable rate indebtedness; disruption in financial markets; acquisition or divestiture activities, including Talen Energy’s ability to realize expected synergies and other benefits from such business transactions; changes in technology; any failure of Talen Energy’s facilities to operate as planned, including the duration of and cost, including lost revenue, associated with scheduled and unscheduled outages at Talen Energy’s generating facilities; Talen Energy’s ability to optimize its competitive power generation operations and the costs associated with any capital expenditures; significant increases in operation and maintenance expenses, such as health care and pension costs, including as a result of changes in interest rates; the loss of key personnel and the ability to hire and retain qualified employees; war, armed conflicts or terrorist attacks, including cyber-based attacks; and risks associated with federal and state tax laws and regulations.


Welcome and Introduction to Talen 3.0


Ralph Alexander, Chief Executive Officer

Agenda





Time	Topic	Presenter
9:00 am	Introductory Remarks & Talen 3.0	Ralph Alexander <i>Chief Executive Officer</i>
9:20 am	The Journey and Our Assets	 <ul style="list-style-type: none"> ➤ Chief Executive Officer of Talen Energy; Riverstone partner and Talen Board Member prior to take-private ➤ Former CEO of BP's Gas, Power and Renewables business and BP Chemicals; held senior executive positions at BP's Exploration, Production, Refining and Marketing ➤ Executed multiple turnarounds of commodity and high fixed-cost driven businesses ➤ Serves as current Director of Enviva, ILX; former Director of Foster Wheeler, Anglo American, EP Energy, and SteinMart ➤ M.S. in Nuclear Engineering from NYU and M.S. in Management from Stanford University
9:50 am	The Future: Balance Sheet and Financial Policy	
10:10 am	Operational Excellence: Benchmarking Susquehanna	
10:25 am	<i>20 minute break</i>	
10:45 am	Operational Excellence: Panel and Case Studies	
11:15 am	Panel: Commercial Excellence	
11:45 am	The Equity Story and Owner's Perspective	
12:15 pm	Lunch: Panel Q&A	

Time	Topic	Presenter
9:00 am	Introductory Remarks & Talen 3.0	<p>Alex Hernandez <i>Chief Financial Officer</i></p>  <ul style="list-style-type: none"> ➤ Appointed Chief Financial Officer of Talen Energy December 2016; held Senior Advisor position at Riverstone during 2016 focused on the power sector and on the acquisition of Talen ➤ Led execution of Talen's turnaround following closing of the take-private transaction ➤ Prior to joining Talen, held CFO position at Terraform Power until November 2015 ➤ Served as Managing Director in the Investment Banking Division of Goldman Sachs with a primary focus on coverage of North American companies in the utility, merchant power, and renewable energy sectors ➤ Currently serves as a Roundtable member of the James A. Baker III Institute for Public Policy at Rice University ➤ Holds a B.A. in Economics from Rice University, B.S.C. from London School of Economics and a MBA from Columbia University
9:20 am	The Journey and Our Assets	
9:50 am	The Future: Balance Sheet and Financial Policy	
10:10 am	Operational Excellence: Benchmarking Susquehanna	
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Time	Topic	Presenter
9:00 am	Introductory Remarks & Talen 3.0	<p>Stacey Peterson SVP Finance, Treasurer, Head of IR</p>  <ul style="list-style-type: none"> ➤ Joined Talen in April 2018 after 11 years at Calpine Corporation; responsible for balance sheet and liquidity management, treasury, credit, financial analysis and investor relations; serves as Co-Chair of Talen’s nuclear decommissioning trust and retirement plan committees, overseeing ~\$2.5 billion of invested assets. Member of Talen’s Risk Committee. ➤ 18 years experience in Energy and Power, including treasury and capital markets, financial planning and analysis, commodities structuring, strategy, and M&A; most recently served as served as Treasurer of Calpine for 5 years prior to joining Talen. ➤ Led the strategy for Calpine’s capital structure, including the execution of \$18 billion in financings and closing the recent Calpine take-private transaction; led Calpine’s global banking relationships across \$2 billion of revolving credit facilities ➤ Holds a B.S. in Business, Finance from the Kelley School of Business at Indiana University and completed the AMP Program at Harvard Business School
9:20 am	The Journey and Our Assets	
9:50 am	The Future: Balance Sheet and Financial Policy	
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Time	Topic	Presenter
9:00 am	Introductory Remarks & Talen 3.0	<p>Brad Berryman <i>SVP, Chief Nuclear Officer</i></p>  <ul style="list-style-type: none"> ➤ Appointed Senior Vice President and Chief Nuclear Officer in September 2018 after joining Talen and Susquehanna as Site Vice President in 2017 ➤ Previously Station Director at Turkey Point, a Nextera Energy Resources Florida nuclear facility ➤ Held position of Vice President of Site Operations and General Plant Manager at Arizona Public Service's Palo Verde Station. Prior to that role, Brad was Business Director, facilitating long range equipment plans, managing capital, operations and maintenance budgets ➤ Began his nuclear career at Arkansas Nuclear One, investing a decade of service there where he held positions of shift manager/control room supervisor, refueling outage manager, work management manager, operations manager, and finally general manager of plant operations ➤ Serves on Utilities Service Alliance Board of Directors and is a member of Wyoming Valley United Way Board of Directors
9:20 am	The Journey and Our Assets	
9:50 am	The Future: Balance Sheet and Financial Policy	
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Agenda

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9:00 am	Introductory Remarks & Talen 3.0		<p>Cole Muller <i>MD, Operational Excellence</i></p> <ul style="list-style-type: none"> ➤ Joined Talen as Managing Director in January 2018; leads Operational Excellence initiative ➤ Formerly Associate Partner for McKinsey & Co., advising energy clients on operational turnarounds and transformations. Served as submarine officer in Navy ➤ B.S. in Mathematics from US Naval Academy, MBA from Wharton School and JD from Penn
9:20 am	The Journey and Our Assets		
9:50 am	The Future: Balance Sheet and Financial Policy		<p>Dustin Wertheimer <i>Divisional CFO, Susquehanna</i></p> <ul style="list-style-type: none"> ➤ Appointed Vice President and Divisional Chief Financial Officer for Susquehanna Nuclear in July 2017. Previously held the role of Vice President Finance – Risk ➤ Prior to being part of the Talen spin-off spent 14 years with PPL Corporation in numerous finance/accounting roles ➤ Holds C.P.A., B.S. in Accounting from King's College and M.B.A from Lehigh University
10:10 am	Operational Excellence: Benchmarking Susquehanna		
10:25 am	20 minute break		
10:45 am	Operational Excellence: Panel and Case Studies		<p>Jason Endlich <i>Divisional CFO, PJM Fossil</i></p> <ul style="list-style-type: none"> ➤ Leads PJM Fossil's business planning, supply chain, and financial management ➤ 15 years of power industry experience ➤ Former VP of asset mgmt. for Topaz Power ➤ Former C.P.A., received B.S. from Salisbury University and completed executive program from Darden Graduate School at UVA
11:15 am	Panel: Commercial Excellence		
11:45 am	The Equity Story and Owner's Perspective		<p>Ryan Price <i>Vice President, Human Resources</i></p> <ul style="list-style-type: none"> ➤ Joined Talen as Vice President HR in July 2017; oversees all aspects of HR ➤ 20+ years in various VP HR positions within airline industry and O&G (United/CoAir & AA/US Airways). Successfully negotiated 48 collective bargaining agreements ➤ B.S. in HR Mgmt/Industrial Org. from Texas A&M University; Scholarship Athlete - Football
12:15 pm	Lunch: Panel Q&A		

Agenda

Time	Topic	Presenters
9:00 am	Introductory Remarks & Talen 3.0	<div style="display: flex; align-items: center;"> <div style="border: 1px dashed blue; padding: 5px; margin-right: 10px;"> <p style="text-align: center;">John Norling <i>SVP, Commercial</i></p>  </div> <div style="border: 1px dashed blue; padding: 5px;"> <ul style="list-style-type: none"> ➤ Appointed Senior Vice President of Talen Energy in April of 2018 overseeing all trading and optimization of Talen's fleet; serves as President for Talen Energy Marketing. ➤ Restructured and led Essent's (Dutch utility) Geneva, Switzerland based Asset Trading business, taking it through Essent's acquisition by RWE AG; served as co-Directeur of Essent/RWE's Geneva office ➤ Built and led Constellation Energy's London based European Power and Gas trading business ➤ A founding member of the trading team at the pioneering alternative energy supplier New Energy Ventures; acquired by AES and tapped to open UK office to build and run the company's European trading business, optimizing the company's UK generation portfolio ➤ Received B.S. in Business Administration, Finance with Honors from Northeastern University, Boston </div> </div>
9:20 am	The Journey and Our Assets	
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11:15 am	Panel: Commercial Excellence	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px dashed blue; padding: 5px; margin-right: 10px;"> <p style="text-align: center;">Ralph Alexander <i>Chief Executive Officer</i></p> </div> <div style="border: 1px dashed blue; padding: 5px;"> <p style="text-align: center;">Alex Hernandez <i>Chief Financial Officer</i></p> </div> </div>
11:45 am	The Equity Story and Owner's Perspective	
12:15 pm	Lunch: Panel Q&A	

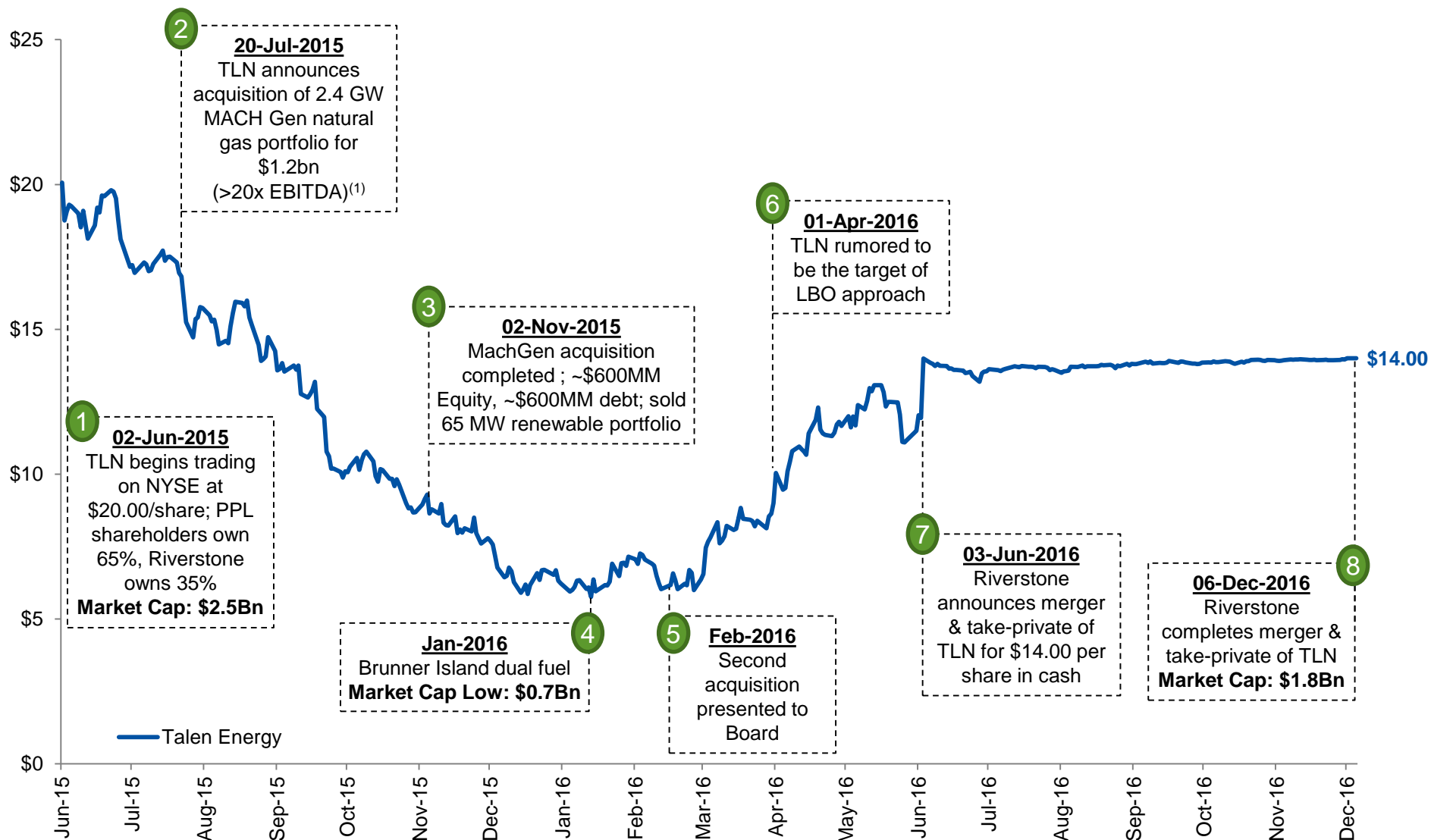
Time	Topic	Presenter
9:00 am	Introductory Remarks & Talen 3.0	<p>Carl Williams <i>Riverstone Holdings LLC, Managing Director</i></p>  <ul style="list-style-type: none"> ➤ Managing Director of Riverstone and Co-Head of Riverstone Power, based in Houston ➤ Joined Riverstone in 2008 and is responsible for sourcing and managing energy investments with a focus on equity in the power sector. Serves as a member of Riverstone Power's Investment Committee ➤ Prior to joining Riverstone, Mr. Williams was a New York based member of the Global Natural Resources Investment Banking Group at Goldman, Sachs & Co. Prior to joining Goldman in 2005, Mr. Williams held various positions in engineering, operations and procurement at Lyondell Chemical Company ➤ Serves on the boards of Talen Energy Corporation, Enviva LP, TrailStone, ReEnergy Holdings, and Crimson Resource III ➤ Holds B.S. in Chemical Engineering (Tau Beta Pi, Phi Lambda Upsilon) and a B.A. in Economics (Phi Beta Kappa) from Rice University. Earned his M.B.A. from Columbia University with a focus in Finance and Economics ➤ Serves as an energy advisor to Ayata, Inc., a pioneer in the field of Prescriptive Analytics, and is a member of the Leadership Cabinet of Texas Children's Hospital
9:20 am	The Journey and Our Assets	
9:50 am	The Future: Balance Sheet and Financial Policy	
10:10 am	Operational Excellence: Benchmarking Susquehanna	
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Time	Topic	Presenters
9:00 am	Introductory Remarks & Talen 3.0	<p>Debra Raggio <i>SVP, Regulatory and External Affairs</i></p>  <ul style="list-style-type: none"> ➤ Appointed Senior Vice President, Regulatory & External Affairs Counsel of Talen Energy in January 2017; responsible for regulatory legal and external affairs corporate functions, with broad experience in federal and state electric and natural gas legal matters; legislative and external affairs, regulatory, compliance and transactional matters ➤ Served in similar role for Topaz Power Management, LP. (2013-2016) and for GenOn Energy, as well as its predecessor, Mirant Corporation (2001-2013) ➤ Former attorney with the law firm of Baker Botts, LLP specializing in regulatory and transactional energy matters and appellate litigation, and clerked for Chief Justice of the Supreme Court of Texas ➤ Holds a J.D. from the University of Texas, MBA Finance and Management from the University of Houston, and B.S. in Mineral Land Management from the University of Colorado
9:20 am	The Journey and Our Assets	
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12:15 pm	Lunch: Panel Q&A	<p>Alex Hernandez <i>Chief Financial Officer</i></p> <p>Cole Muller <i>MD, Operational Excellence</i></p>

The Journey to Take-Private

June 2015 IPO to Take-Private Closing

Riverstone: "The Accidental Activist"



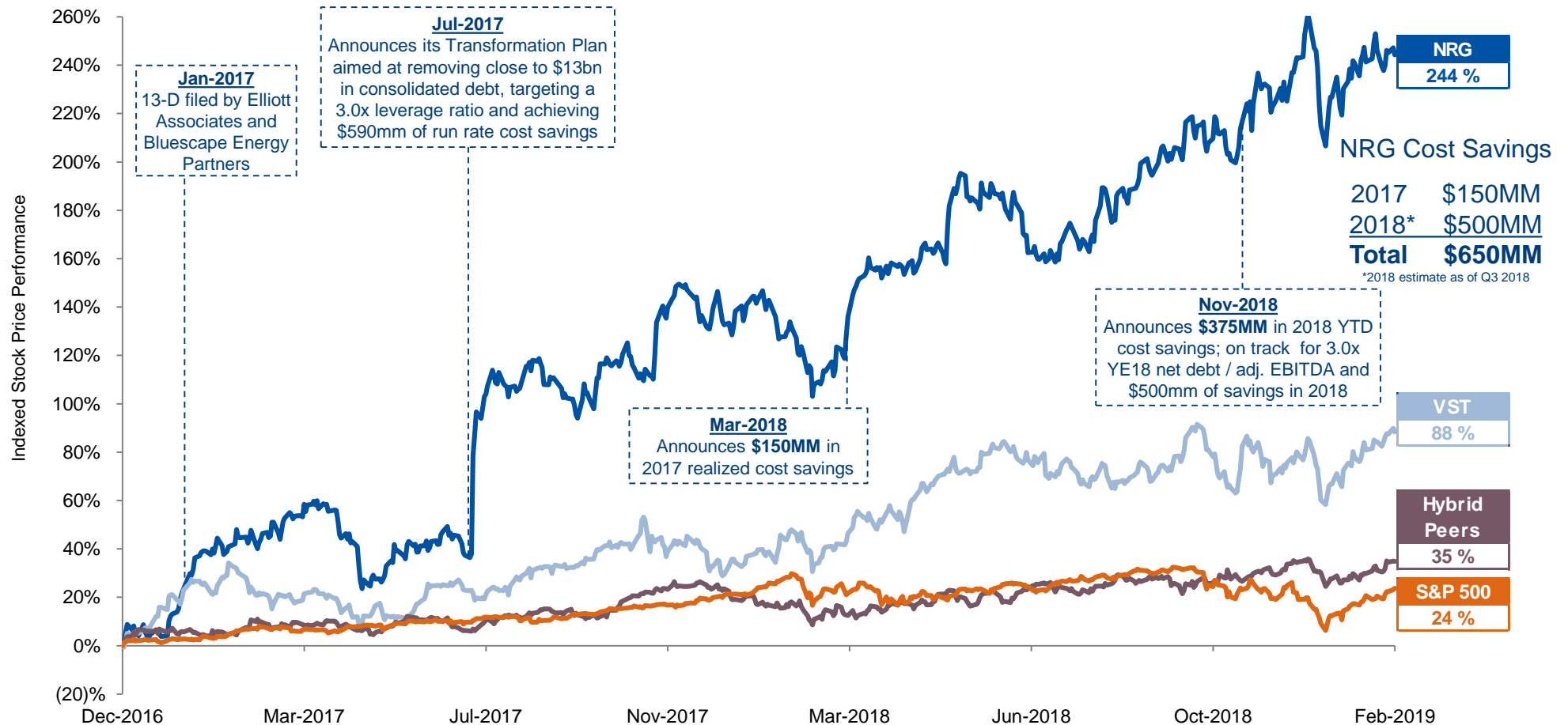
Source: Bloomberg Market Data as of 14-Sep-2018

(1) Based on estimated / average of \$50 million of EBITDA

IPP Equity Appreciation Since Talen Take Private

December 6, 2016 to Present

Cost reductions, asset performance, and balance sheet discipline driving IPP equity appreciation



Source: Bloomberg Market Data as of 5-Feb-2019

Note: Hybrid peers include EXC, PEG, ETR

Performance: Deliver what we promise

- ✓ 2017 & 2018 financial targets met and exceeded
- ✓ Talen's new operating cost base proven durable
- ✓ Susquehanna moved to 1st quartile cost structure
- ✓ Operational Excellence process embedded within the Fossil Fleet in preparation for 2019/2020
- ✓ Increased volatility → strengthening commercial capabilities
- ✓ Environmental, Social, and Governance (ESG) step change

Portfolio: Optimization & Opportunity

- ✓ Improved dispatch costs throughout fleet
- ✓ Built for all seasons
- ✓ Montour Marcellus gas conversion option
- ✓ Real estate and access to grid (renewables development)
- ✓ Ready to be opportunistic for growth

Innovation

- ✓ Record capacity clear in 2021 / 2022 auction driven by bidding strategy evolution
- ✓ Reached agreement with the Sierra Club for Brunner Island which preserves optionality
- ✓ Completed MACH Gen restructuring, disposing of underperforming asset while retaining control of 1.3 GW natural gas assets in NE (renamed NorthEast Gas Generation)
- ✓ Rebuilding retail business with commercial & industrial focus underpinned by enhanced technology
- ✓ Labor contract renegotiation important step towards “One Talen”

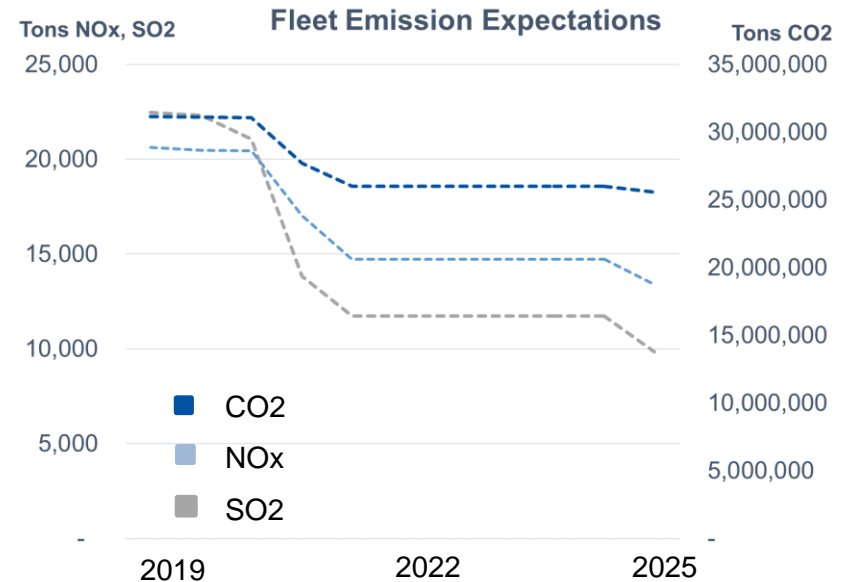
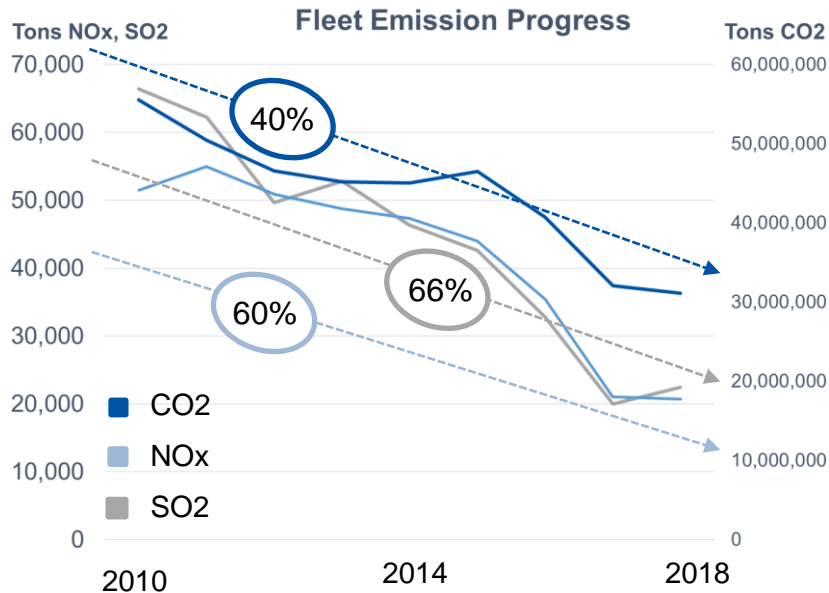
The Balance Sheet

- ✓ Strong, aligned equity sponsor with deep industry expertise
- ✓ Maturities continue to be extended as over \$2.0 billion of near term maturities have been de-risked since take-private
- ✓ Capital allocation balanced between equity return to sponsor and debt retirements to date
- ✓ Provide clarity regarding our financial policy going forward

ESG: Making a Difference

Environmental, Social, and Governance (ESG)

Environmentally Responsible



Control system investments, fuel switching, and plant closures have reduced our impact

Greater reductions anticipated due to planned closures of high emission coal units and fuel switching

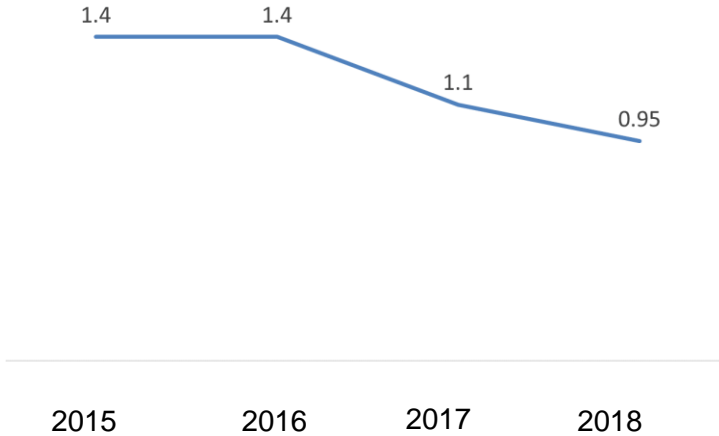
Talen's commitment to ESG-focused operations is evident by performance improvements in the areas of environmental, safety, and regulatory compliance

ESG: Making a Difference

Environmental, Social, and Governance (ESG)

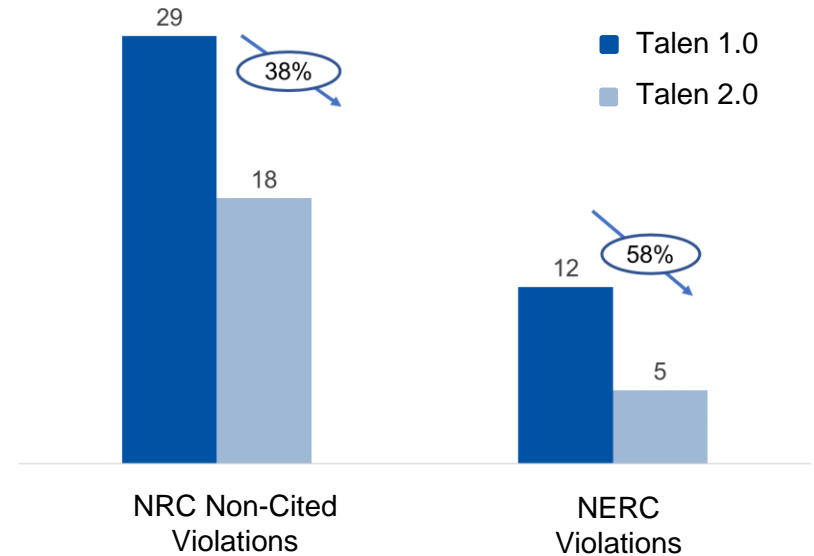
Safe

OSHA Incident Rate



Vigilant

Regulatory Improvements



No Harm Culture

Talen's commitment to ESG-focused operations is evident by performance improvements in the areas of environmental, safety, and regulatory compliance

The Journey and Our Assets

Alex Hernandez, Chief Financial Officer

Turnaround Strategy: Where we Started

Talen 2.0: Guiding Principles (Dec 2016)

Strategy

Plan of Action

Results Achieved

Become Lean

- Deliver cash proceeds generated from the sale of non-core assets
- Optimize working capital cycle and drive balance sheet efficiency



Build Muscle

- Deliver recurring incremental Cash Flow from significant SG&A savings, plant operational improvements, fixed O&M and CAPEX reductions



Variablize

- Variabilize the Company's >\$1Bn fixed O&M and G&A cost base (2016)
 - More flexible cost base necessary to rapidly adjust to variable commodity environment
- Drive compensation across enterprise towards cash flow performance



Manage Risk

- Implement risk management and hedge policy to protect future cash flows and narrow the band of Commodity Gross Margin outcomes
- Rapidly take action to address the Company's balance sheet by focusing on preserving liquidity, extending near-term maturities, and eliminating legacy liabilities



Talen 1.0 and 2.0 Recap

Defining Characteristics	Talen 1.0 (2016 and prior)	Talen 2.0 (2017 – 2018)
Workforce and Management Team	Oversized, top heavy	Reducing, Reshaping, Building
Plant Costs and Operations	High fixed costs, unnecessary capital spend, non-core businesses	Cost control, continued safe/reliable operations, focus on core assets
Capital Structure and Balance Sheet	Significant near term maturity wall	Extend runway, preserve flexibility

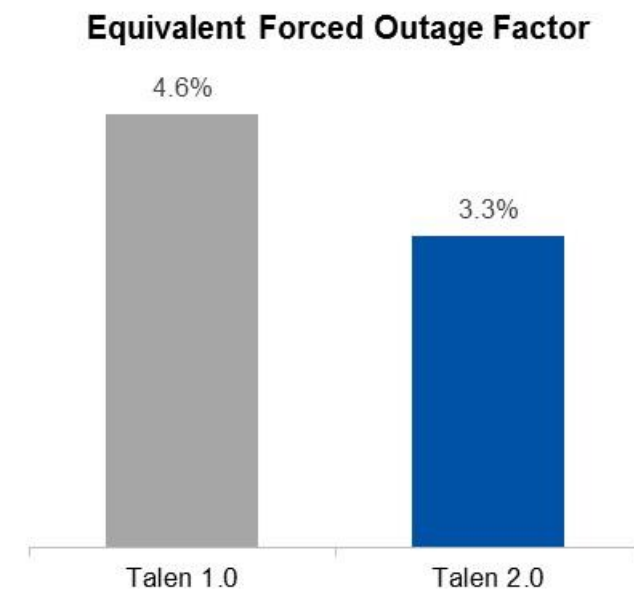
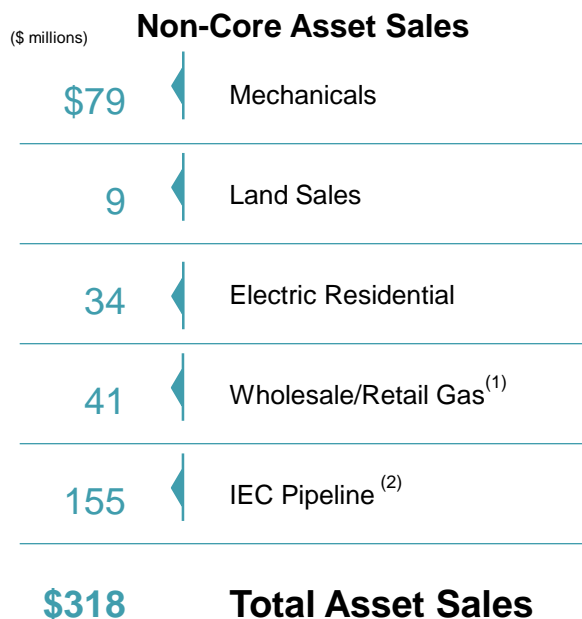
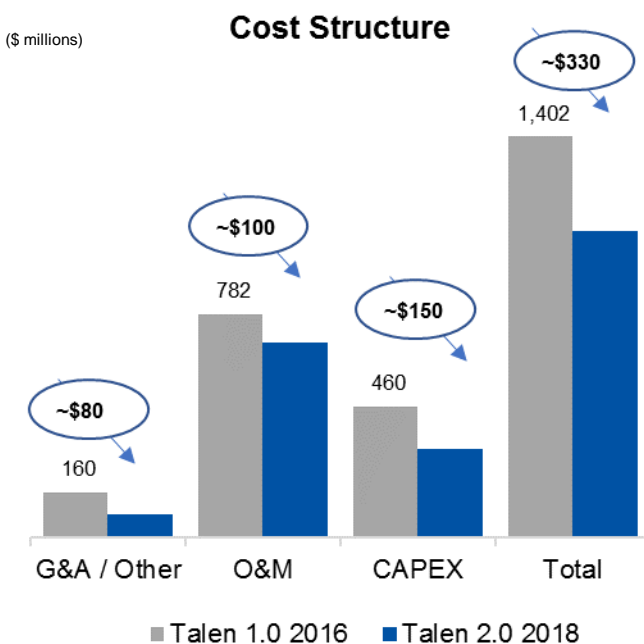
Key Details and Highlights:

Talen 1.0	Talen 2.0
~6,000 employees / 3 rd party workers	~2,500 employees
Undisciplined use of contractors	Strategic use of contractors
~1,200 employees at Susquehanna	~925 employees at Susquehanna
~2,000 employees at mechanical businesses	Mechanicals businesses all sold by end of 2018
Significant layers of middle to top-management	Flatter organization; top 50 management removed with hand-picked exceptions
Decision making / idea generation confined to management	Promote upward engagement for idea generation
Executive team minimally engaged with broader workforce	Frequent and regular on-site town halls conducted by executive team
Complicated work rules in CBA	Simplified work rules in renegotiated CBA

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Key Details and Highlights:



Note: Cost Structure displays results with Non-GAAP adjustments to arrive at reported Adjusted EBITDA. Talen 1.0 2016 includes (i) pro forma \$4 million and \$10 million reductions of O&M and CAPEX, respectively, for mitigated assets sold in 1H 2016 and (ii) includes Growth CAPEX of \$93 million. Talen 2.0 is based on 2018 preliminary results (subject to audit, expected to be completed in March 2019)

(1) Net of position liquidation of \$14 million

(2) \$10 million of sales proceeds received in Q4 2017; Sale expected to close by Q2 2019 following FERC approval. Amount excludes \$23 million of contingent consideration.

Talen 1.0 and 2.0 Recap

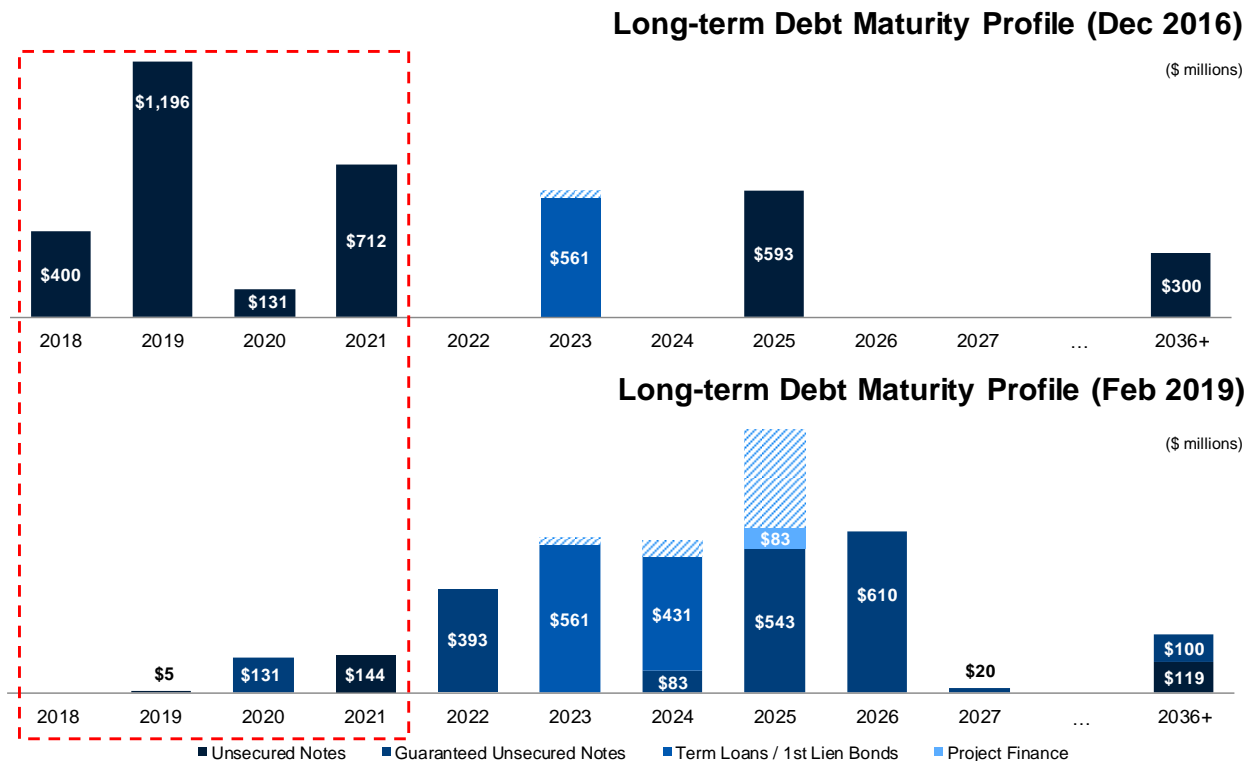
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Plant Costs and Operations	High fixed costs, unnecessary capital spend, non-core businesses	Cost control, continued safe/reliable operations, focus on core assets
Capital Structure and Balance Sheet	Significant near term maturity wall	Extend runway, preserve flexibility

Key Details and Highlights:

De-Risked \$2 billion of Near Term Maturities

Extended Maturity Runway

Additional Scheduled Cash Amortization and Sweeps



Note: Debt maturities shown (i) exclude NorthEast Gen non-recourse debt and (ii) display principal balances net of scheduled amortization and minimum target debt balance cash sweeps

Elimination of Legacy Liabilities

Talen is now a cleaner, simpler, higher-performing Company

NE Gas (FKA MACH Gen)

Implemented restructuring under Chapter 11 pre-packaged plan of reorganization

Talen retains control of Athens and Millennium

- 1.3 GW natural gas fleet in NYISO and ISO-NE

~\$125 million aggregate non-recourse first lien debt reduction

- Pre-emergence debt extinguished and replaced with a new RCF, TLB, and TLC
- Post-emergence debt maturity extended to 2023
- Reduction in cash interest expense
- Elimination of scheduled amortization for life of term loan
- Talen made \$25 million 2nd lien investment

Mechanicals

Completed sale of final mechanicals contracting business in December 2018

- Completed 10 of 11 sales in 2017 for aggregate proceeds of ~\$77 million
- McCarl's sold at end of 2018 for ~\$2 million
- ~2,000 employees from these businesses

Sale of businesses eliminated ~\$200 million of potential multi-employer pension liabilities attributed by rating agencies

Labor Contract and Pension

New 5-year labor agreement ratified in September 2018

Focused on creating “One Talen” for all employees

Simplification, Engagement, Teamwork

Obtained right to “freeze” pension benefits

- Management leadership pension benefits frozen Q1 2018
- Freeze effective for union and remaining management employees on January 1, 2019

Annual net economic benefit to Talen is ~\$20 million inclusive of related impacts to non-union

Montana

Talen Montana:

- Since 2012, Talen Montana (fka “PPL Montana”) has been an underperforming business
- Colstrip Units 1&2 required to cease operations by July 1, 2022 (per consent decree executed Sep. 2016)

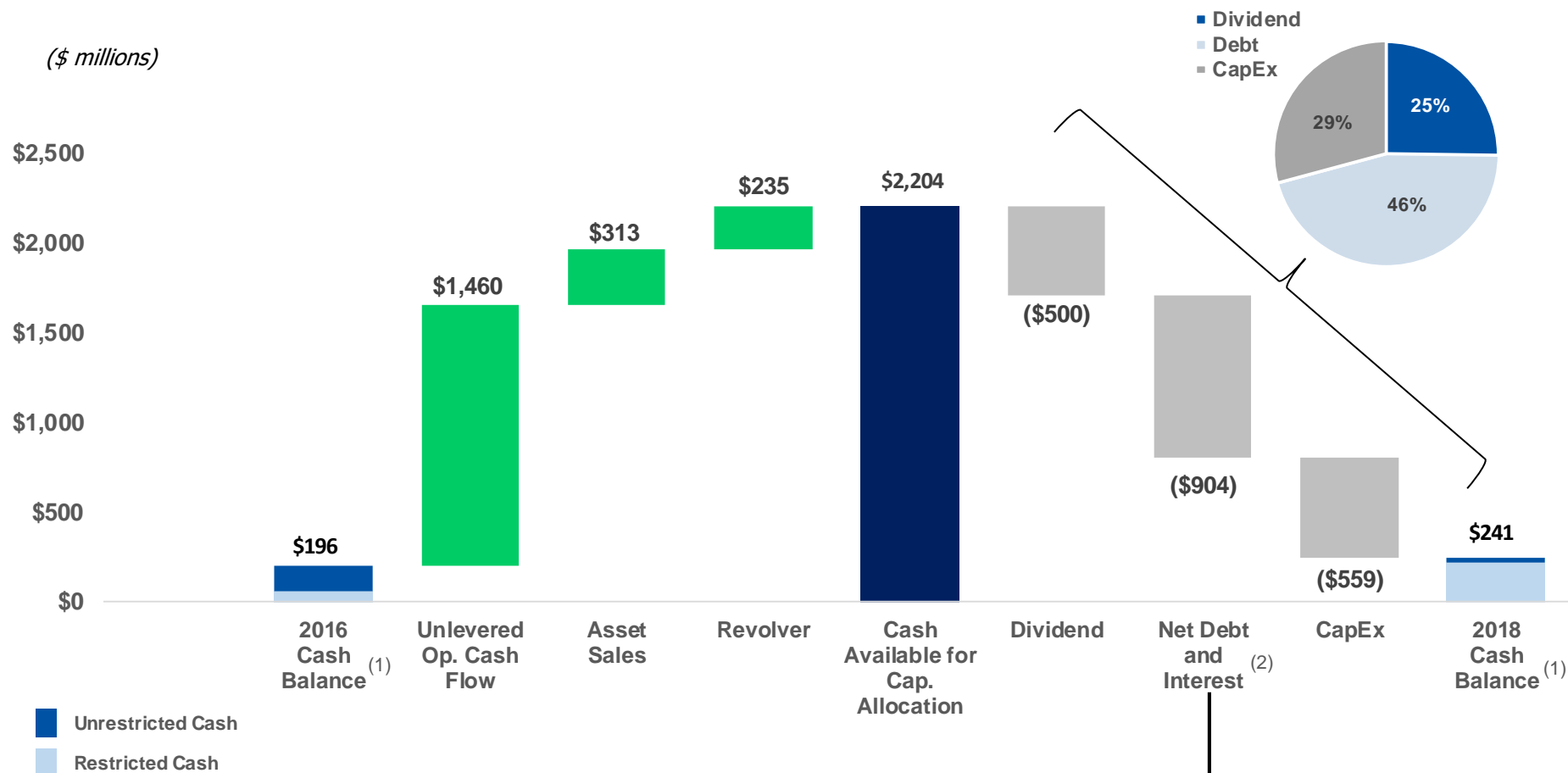
Litigation vs. PPL:

- Two lawsuits filed in Montana state court asserting claims and seeking compensatory and punitive damages for fraudulent conveyance and breach of fiduciary duty
- PPL Montana sold hydro assets for ~\$900 million in 2014 and distributed funds to PPL leaving PPL Montana in distress

Eliminated over \$300 million of liabilities to date

Balanced Capital Allocation Summary

Sources and Uses During Fiscal Years 2017 and 2018 Since Take-Private



1) 2016 cash balance includes \$135 million of unrestricted cash and \$61 million of restricted cash. 2018 cash balance includes \$22 million of unrestricted cash and \$219 million of restricted cash.

2) Includes a pro form adjustment for the sale of Harquahala for consideration of \$150 million

Talen 3.0: Building our Future

The Talen 3.0 strategy will be driven by a focus on the balance sheet and operating excellence

- Maintain lower leverage through continued debt retirements, EBITDA enhancements
- Equity value creation will be driven by equity cushion and strong debt capital structure

Defining Characteristics	Talen 2.0	Talen 3.0
Management Team	Building	Coalescing
Workforce	Reducing, Reshaping	Stable, Recruiting
Operations	Cost Control	Operational Excellence
Work Rules	Complex – Utility Mindset	Simplification, Upward Engagement, Teamwork
Asset Base	Sell Non-Core	Grow Selectively
Regulatory	Eliminate Liabilities, Gain Credibility	Play Offense, Grow Credibility
Capital Structure	Extend Runway, Preserve Flexibility	Reduce Leverage, Balanced Capital Allocation, Lower Cost of Capital
Adjusted EBITDA	\$750 million	\$800 - \$1,000 million potential

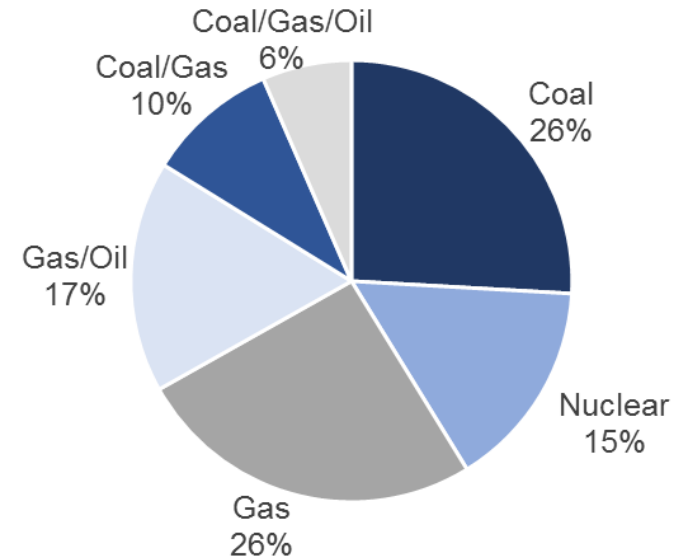
Why We Like the Assets

Large, diversified, flexible asset base

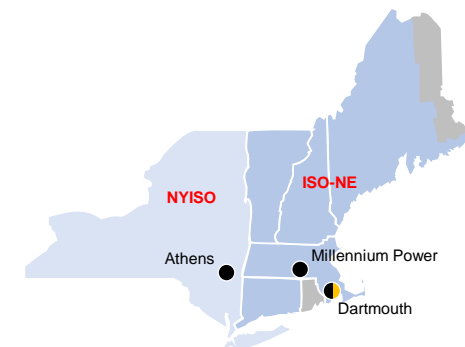
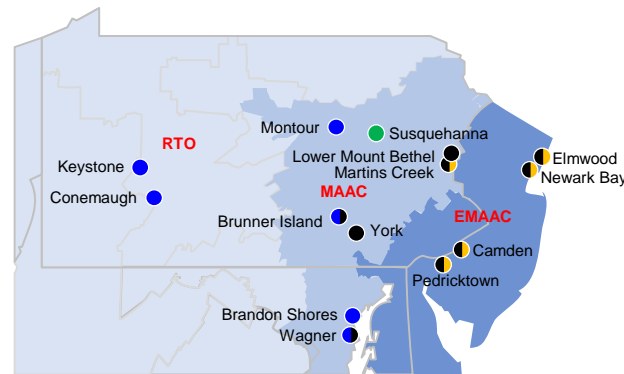
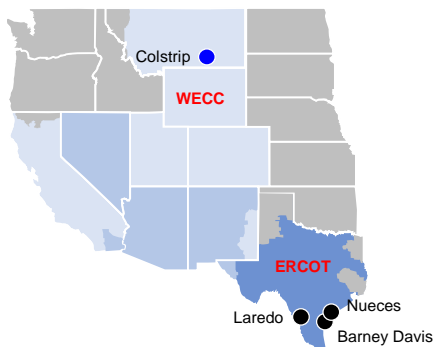
Favorable Traits

- Talen’s weighted average life of assets favorable compared to weighted average of capital structure
 - Susquehanna potential to operate beyond 2060
- Diversified fuel mix with dual-switching capabilities
- Unique locational advantages in constrained regions
- Volatility in markets provides commercial opportunity
- PJM market cleared capacity contango
- ERCOT reserve margin and scarcity pricing
- Significant nuclear regulatory momentum in PA

Fuel Diversity (MW)



Talen Geographic Overview

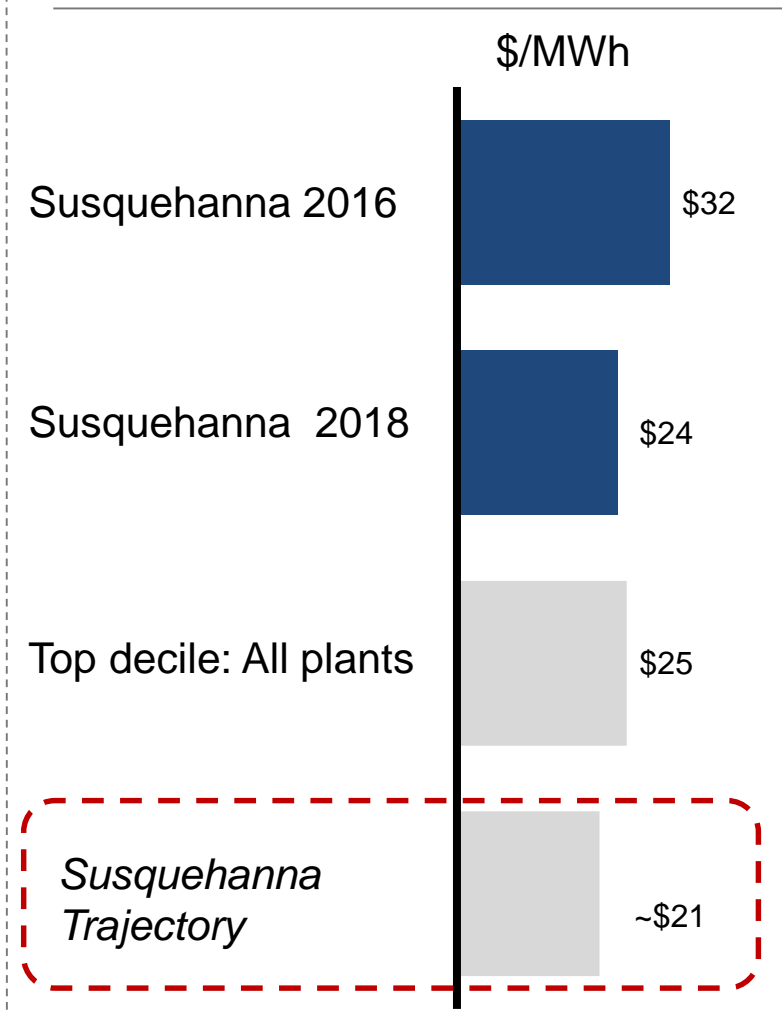
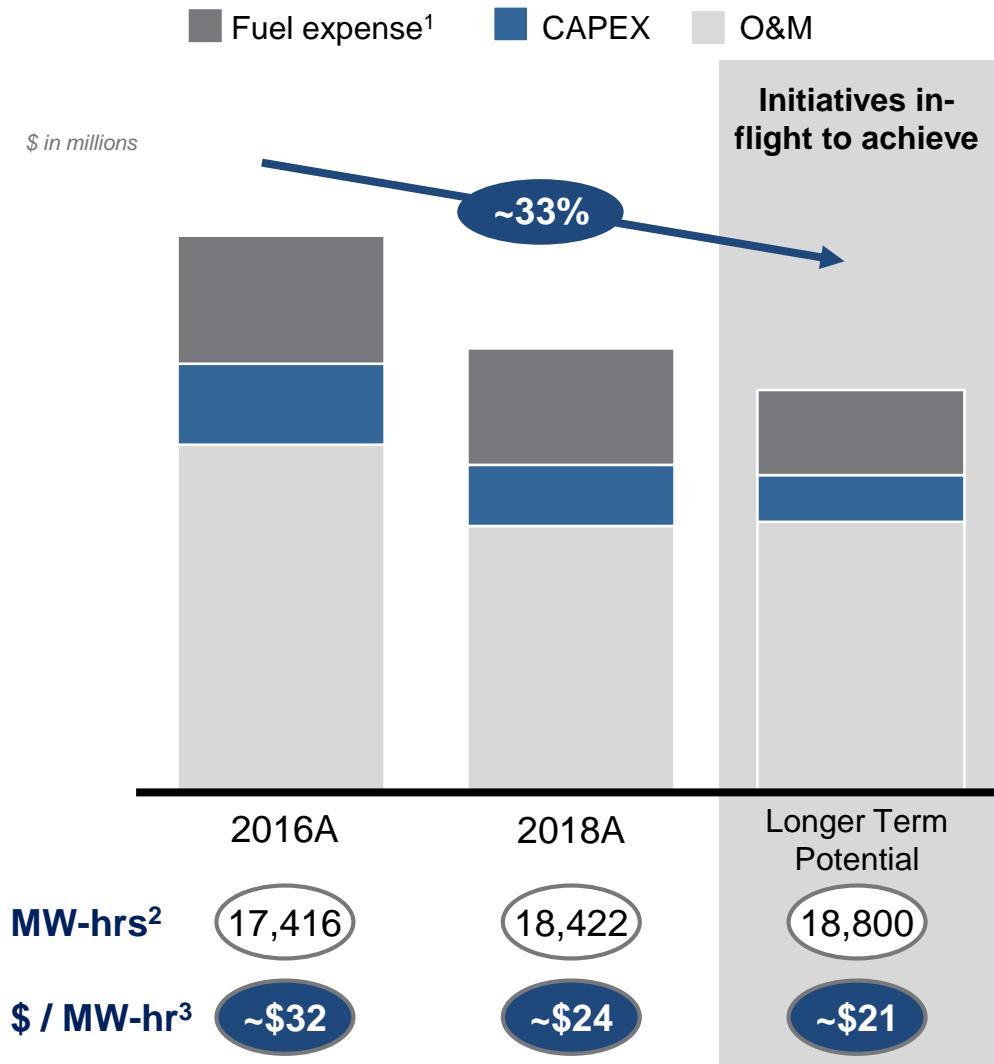


● Coal ● Natural Gas ● Natural Gas / Oil ● Nuclear

~15 GW of Total Portfolio Capacity

Susquehanna: Industry Leader

Performance improvements drive Susquehanna to top decile in the industry



2018 achieved top decile performance; further improvements expected, while increasing safety and regulatory standing

1) Fuel expense shown for benchmarking purposes; actual cash flow used for long-term potential
 2) 90% Talen share
 3) Includes indirect corporate support allocations for benchmarking purposes

Brandon Shores: The Basis Anchor

BGE Zone vs. West Hub Premium

Asset Highlights

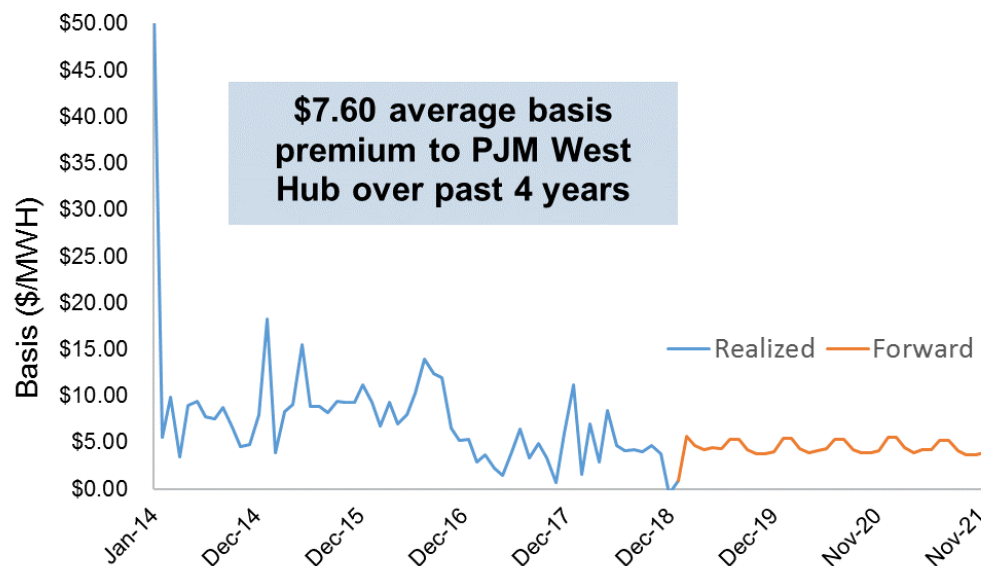
- Important asset in a constrained zone
 - BGE Zone a premium location – driving basis premium relative to PJM West Hub
- Long term viability makes plant a preferred, anchor coal plant with suppliers. High capacity factor.
- Access to the Chesapeake Bay allows for delivery of international and domestic coal via barge
- Strong operational performance: availability and low EFORd factors
- State of the art environmental controls: ESP, Baghouse, ACI, SCR, Scrubber). \$1 billion invested in controls
- Asset sits on the same property as HA Wagner



Quick Glance Characteristics

Location	Baltimore Harbor
Capacity (Nominal)	1,284 MW (2 Units)
Fuel Type	• Coal fired
Heat Rate	10,532 Btu/kWh
Market	PJM (BGE)
COD	1984 and 1991

BGE-PJM West Hub On Peak Basis



Brunner Island: Spread Option Offense

Gas Repowering Completed 2017

Asset Highlights

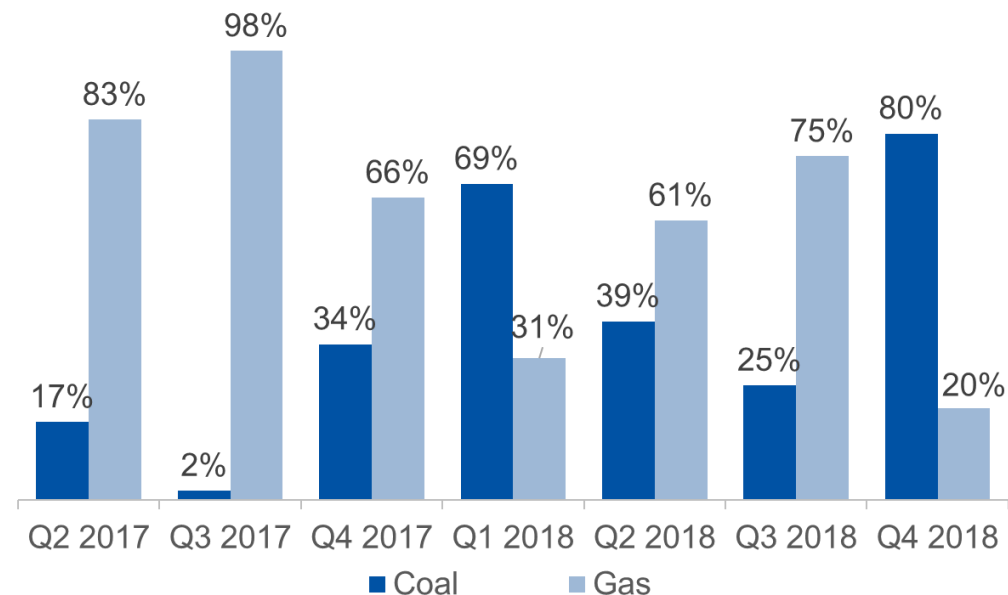
- Dual-fuel capabilities on all three units (gas and coal)
 - Units can switch from 100% coal to 100% gas within a 4 hour period, providing for significant commercial optionality (spread option value)
 - M3 gas volatility during winter periods
 - Units can make the switch while online – critical advantage during peak periods
- Preservation of coal optionality via Sierra Club agreement through 2028
- Unit #3 (742 MW) is a high efficiency, once-through, supercritical CE unit
- Fully scrubbed with highly effective chemical addition for Hg control – Units 1&2 share a common scrubber



Quick Glance Characteristics

Location	York Haven, PA
Capacity (Nominal)	1,422 MW
Fuel Type	<ul style="list-style-type: none"> • Natural Gas • Coal fired
Heat Rate	10,520 Btu/kWh (Gas) 10,308 Btu/kWh (Coal)
Market	PJM (WMAAC)
COD	1961, 1965, 1969
Gas Repowering	2017

Percentage MMBtu's by Fuel Type



Montour: Leidy Hub Baseload

Marcellus Gas Pipeline "Export" Capacity

Asset Highlights

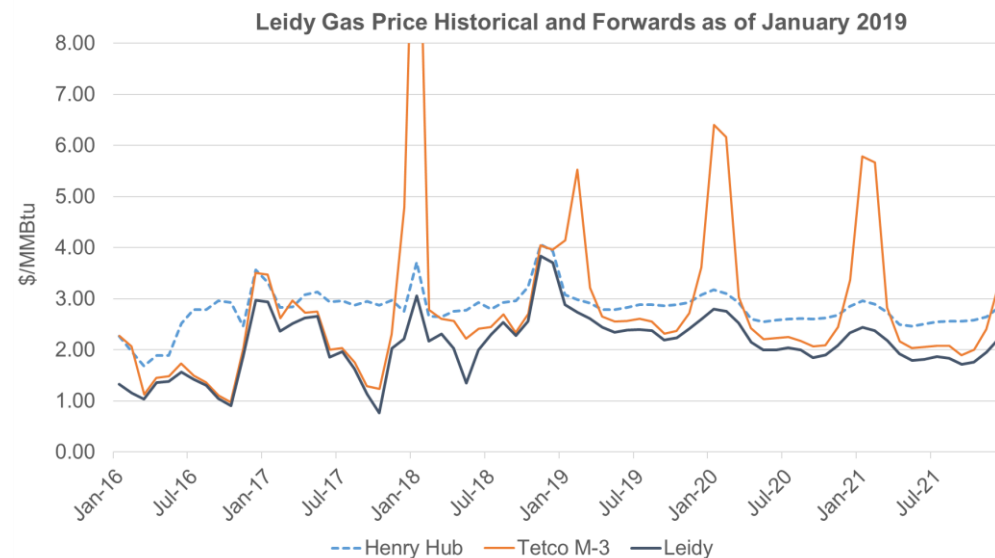
- Two 750MW high efficiency, once-through, supercritical CE Units. Both units scrubbed with SCR
- Option to gasify site; Leidy mouth gas conversion
 - Right of Way and Easements acquired
 - Engineering complete
 - Asset located adjacent to the cheapest natural gas in PJM (spot gas below \$1 / MMBtu)
- Positive coal price / rail delivery cost movement given potential to switch to gas allows Talen to defer conversion decision until 2021
- Approximate \$200 million conversion cost

Quick Glance Characteristics

Location	Washingtonville, PA
Capacity (Nominal)	1,515 MW
Fuel Type	• Coal fired
Heat Rate	9,246 Btu/kWh
Market	PJM (WMAAC)
COD	1972 and 1973

Historical / Forward Leidy Gas

- Northeast PA location in the heart of Marcellus production (Leidy) makes Montour a prime gas conversion candidate



Martins Creek: Capacity Cash Flow Machine

Capacity, Gas, Oil, Rail Flexibility

Asset Highlights

- Large nominal capacity with strong availability factor allows for meaningful cash flow from capacity payments
- Highest gross margin to cash flow conversion across fleet
 - Cleared capacity revenue 3.3x higher than expected fixed O&M through May 2022
- Dual-fuel capabilities with a two million barrel adjacent oil storage facility (owned by Talen) and ability to deliver oil via rail providing significant flexibility
- Advanced NOx controls installed on Unit #3 in 2018 and to be installed on Unit #4 in spring 2019
- Run-time equivalent of 13 years
- Units capable of cycling daily to capture peak energy prices
- Shares site with Lower Mt. Bethel CCGT plant

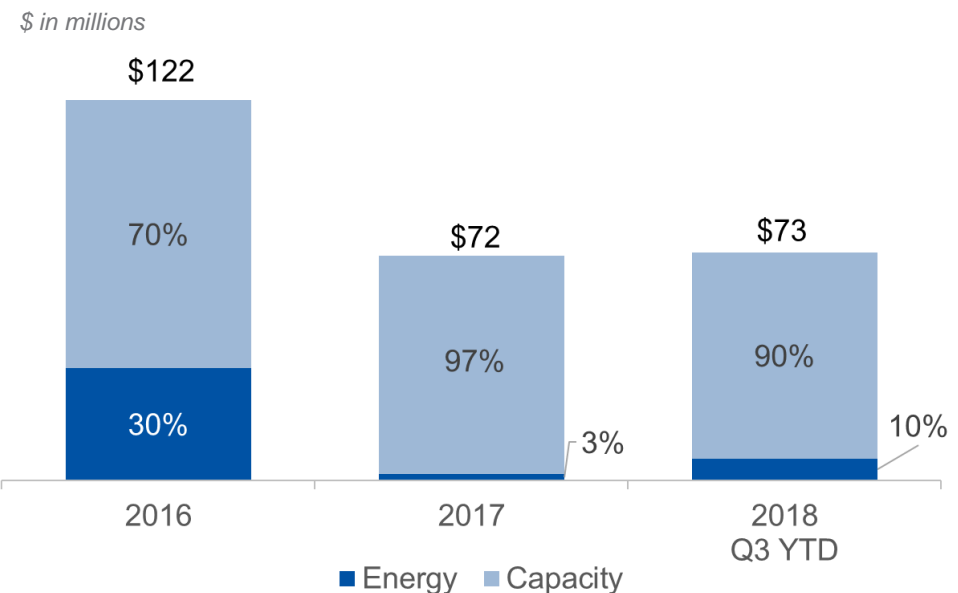


(1) Through September 2018.

Quick Glance Characteristics

Location	Bangor, PA
Capacity (Nominal)	1,714 MW
Fuel Type	<ul style="list-style-type: none"> • Natural Gas • #6 Fuel Oil
Heat Rate	10,560 Btu/kWh
Market	PJM (WMAAC)
COD	1975 and 1977
Run-time Age	13-14 Years

Historical Gross Margin



ERCOT Scarcity: The Three Amigos

Low Heat Rate CCGTs and Fast Start Capability

Asset Base Positioned to Capture Scarcity Pricing Revenue

Total Net Capacity is: 1,743 MW (Summer rating)

Barney Davis: 933 MW

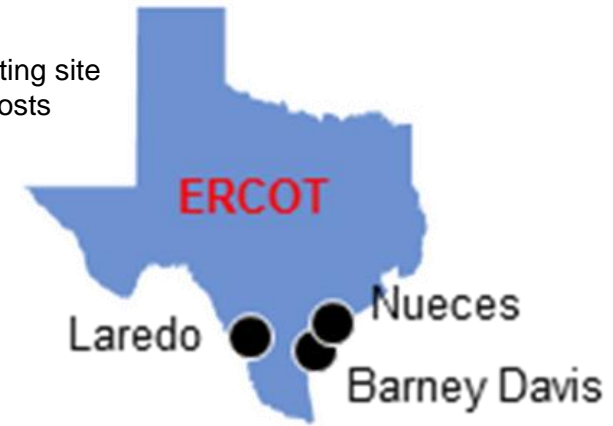
- Unit 2 among the newest and most efficient CCGTs in ERCOT
- Significant duct-firing capability allows for flexibility to capture market volatility
- Expansion capacity on site
- Unit 1 (conventional steam) can be repowered into a CCGT facility on a cost effective basis using existing site infrastructure; benefits from shared resources with Barney Davis 2, resulting in lower fixed operating costs
- Located in growing Corpus Christi load center (LNG, Petrochem)
- Recently announced pipelines will improve access to Permian gas

Nueces Bay: 633 MW

- Among the newest and most efficient CCGTs in ERCOT
- Significant duct-firing capability allows for flexibility to capture market volatility
- Located in growing Corpus Christi load center (LNG, Petrochem)
- Recently announced pipelines will improve access to Permian gas

Laredo: 177 MW

- One of the most efficient and operationally flexible CT peakers in ERCOT
- 10 minute start time with enhanced ancillary capability
- Expansion capacity on-site for 2 LMS100 CTs



2011 Historical Scarcity Pricing

Summer 2011	DAM	RT	DAM Adj	RT Adj
June	\$51	\$52	\$51	\$64
July	\$74	\$59	\$74	\$59
August	\$250	\$210	\$560	\$483
September	\$41	\$40	\$41	\$40
Summer	\$168	\$140	\$334	\$286

Hub_North Prices

Adjusted for cap going to 9,000 from 3,000

2019 Implied Scarcity Pricing

Scarcity Hours	0	5	8.3	9	10	15	20
Price	\$33	\$97	\$139	\$148	\$161	\$225	\$289
HR	12.0	35.0	50.0	53.3	58.0	81.0	104.0

Current summer 2019 Pricing

Athens & Millennium: NorthEast Gas Play

NY Coal Retirements, Capacity Revenue, Gas Expansion

Asset Highlights

Total Net Capacity is: 1,407 MWs (Summer rating)

Athens: 989 MWs (NYISO)

- Among the newest and most efficient CCGTs in NY: 7,269 Btu/kWh¹
- Athens is comprised of 3 separate – 1x1 combined cycle units that can be dispatched independently
- Special Protection Systems are installed at the facility to provide ample transmission capacity to zone G
- Strategically located between PJM and ISO-NE allows Talen to manage power & gas from Baltimore to Boston
- Firm transport on Iroquois pipeline provides ability to optimize natural gas

Millennium Power 335 MWs (ISO-NE)

- Among the newest and most efficient CCGTs in NE. 7,334 Btu/kWh¹
- Units capable of Automatic Generation Control (AGC) for enhanced ancillary service
- Ability to warm start in 2 hours

Dartmouth: 83 MWs (ISO-NE)

- Dual fueled, units can be dispatched on diesel during critical gas days
- 20 MW Peaker capable of 10 minute cold start up time
- Units capable of Automatic Generation Control (AGC) for enhanced ancillary service



(1) Reflects 2018 GADs data

The Future: Balance Sheet and Financial Policy

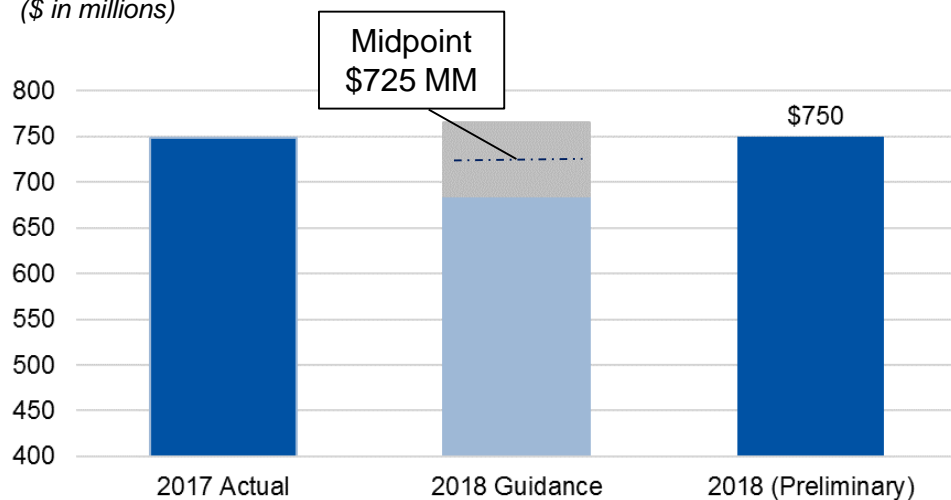
Stacey Peterson, SVP Finance, Treasurer, Head of IR

2018 Summary Results (Preliminary)

Adjusted EBITDA: \$750MM; Adjusted FCF \$165MM

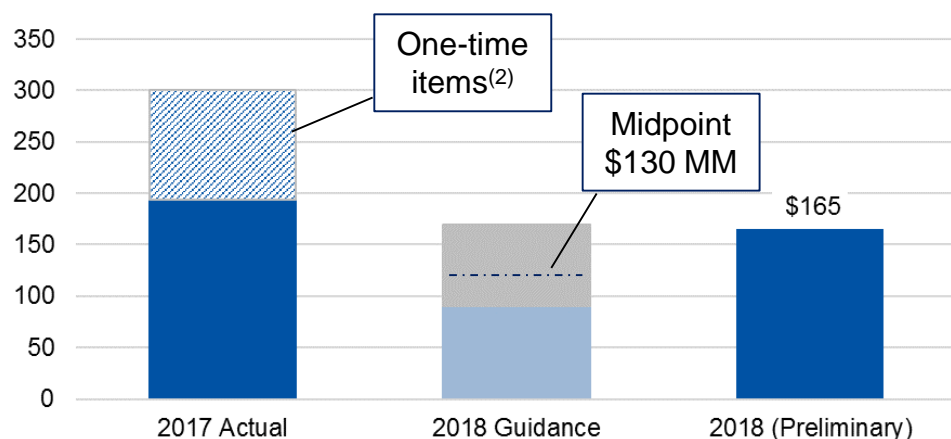
2018 Adjusted EBITDA Preliminary Results⁽¹⁾

(\$ in millions)



2018 Adjusted FCF Preliminary Results

(\$ in millions)



Key Highlights

- Talen announces preliminary 2018 results (subject to audit, expected to be completed in March 2019):
 - EBITDA: ~\$750 million
 - FCF: ~\$165 million
- Comprehensive review of Q4 2018 to be discussed on Q4 earnings call, scheduled for March 21, 2019
- Outperformed midpoint of both adjusted EBITDA and adjusted FCF
- Updating Adjusted EBITDA definition to exclude pension expense due to pension freeze (\$21 million impact for 2018)

Note: 2018 results are preliminary and subject to audit, expected to be completed in March 2019

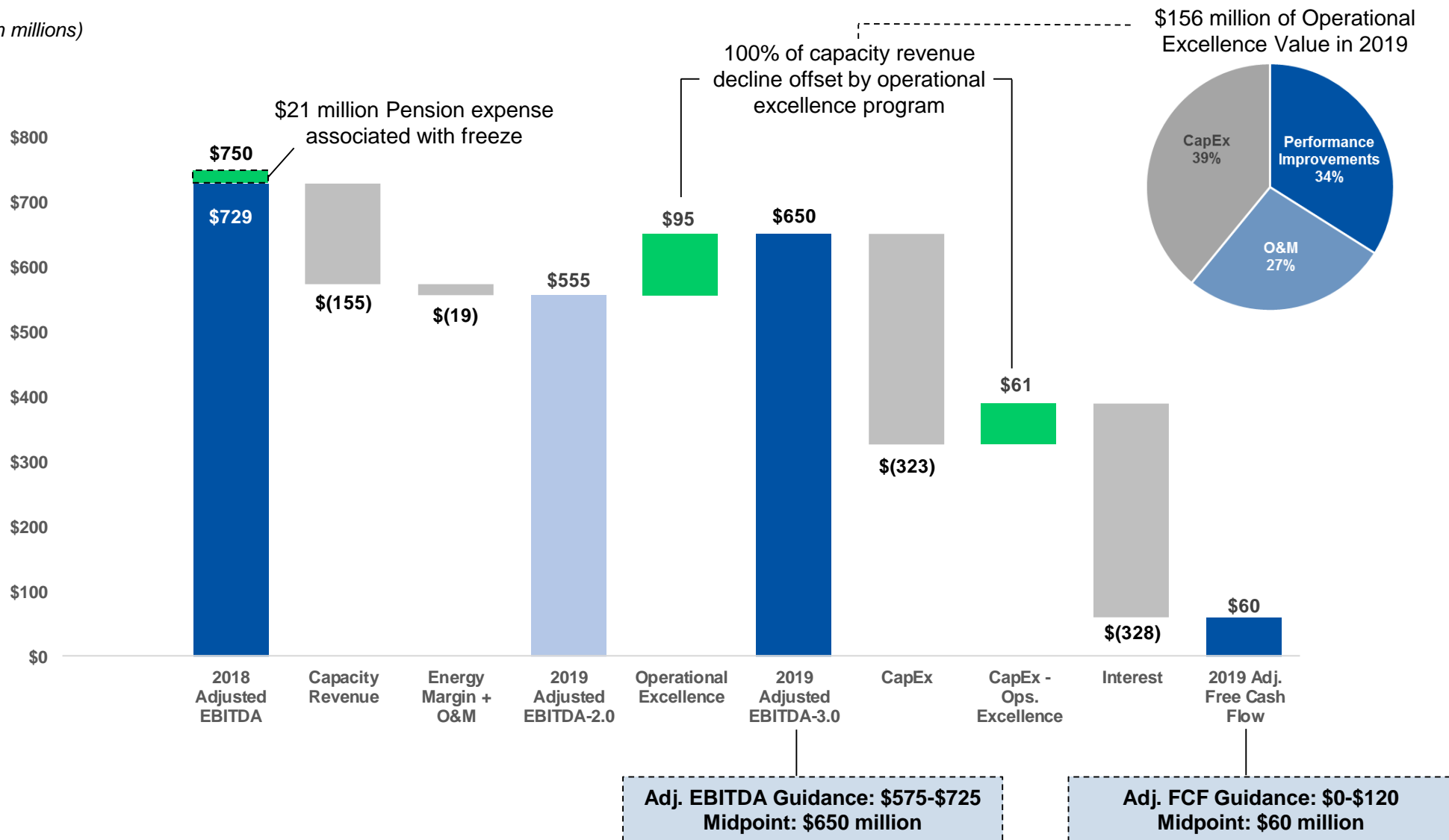
(1) 2018 amended definition for pension service cost includes add-back of \$38 million for non-cash net periodic defined benefit cost, \$21 million related to pension freeze. 2017 period not adjusted.

(2) Non-recurring items included in 2017 FCF guidance / results include federal tax refund and coal sales

Establishing 2019 Guidance

2018 Adjusted EBITDA Walk to 2019 Guidance Midpoints

(\$ in millions)

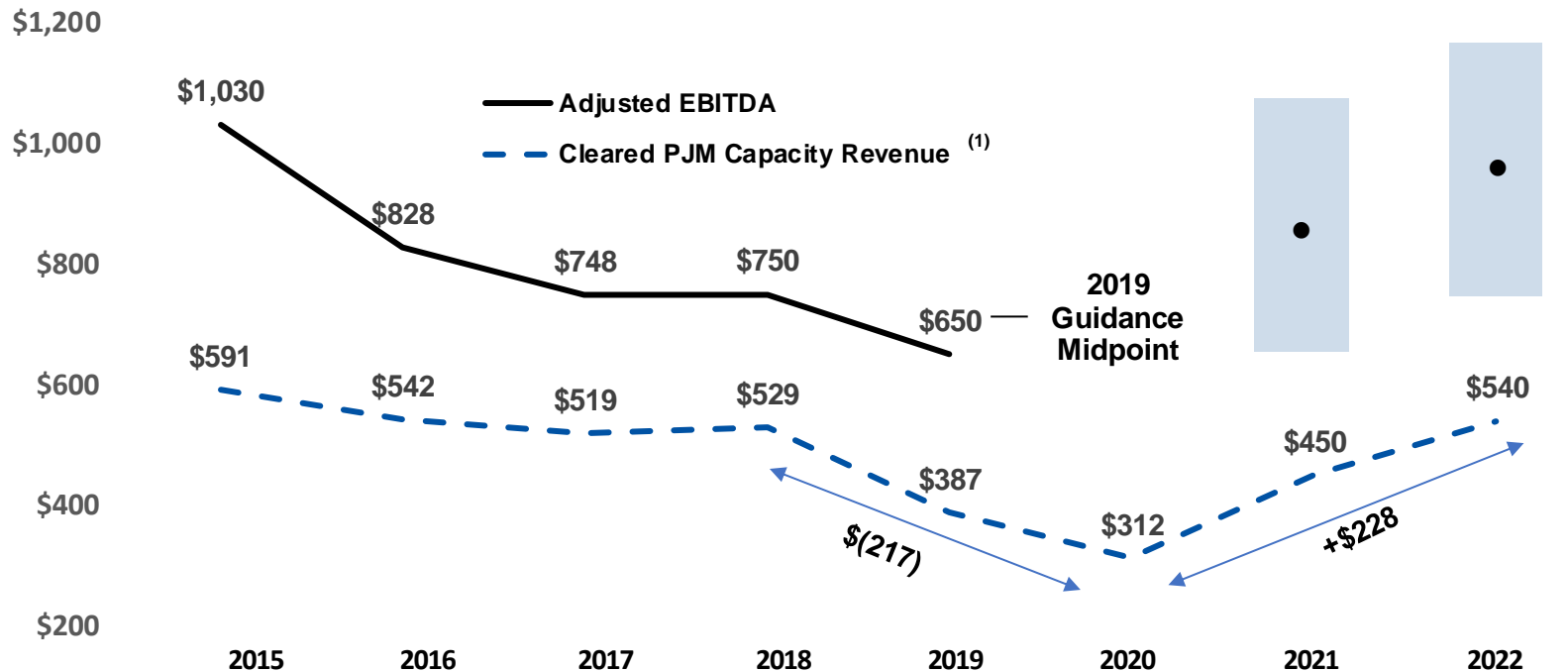


Operational excellence initiative materially improves 2019 guidance by \$156 million in total

Note: 2018 results are preliminary and subject to audit, expected to be completed in March 2019

Talen 3.0: Changing the EBITDA Trajectory

(\$ in millions)



	2015	2016	2017	2018	2019	2020	2021	2022
Energy + Cap.(NE & NY)	\$ 1,522			\$ 985			\$1,000-1,400	
PJM Capacity	591			529			450	
Margin	2,113			1,514			\$1,450-1,850	
O&M/SG&A/Other	(1,083)	(942)		(764)			(800)	
Adjusted EBITDA	\$ 1,030			\$ 750	\$ 650		~\$850	
CapEx	(497)	(460)		(310)	(262)		(300)	
Adjusted EBITDA less CapEx	\$ 533			\$ 440	\$ 388		~\$550	

Internal operational initiatives, capacity / energy market improvement, and regulatory developments drive significantly improved outlook and potential

Notes:
 2018 results are preliminary and subject to audit, expected to be completed in March 2019
 2015 includes pro forma adjustments for RJS, mitigated assets, and NorthEast Gas (FKA New Mach Gen)
 2016 includes pro forma adjustments for mitigated assets
 2015-2017 exclude pension service cost adjustments
 2018-2019 include pension service cost adjustments
 (1) 2022 capacity revenue cleared through May 2022, revenue extrapolated for FY 2022

Capital Structure

December 2018 Pro Forma for January 2019 Tender Offer

Recourse and Non-Recourse Debt Structure⁽¹⁾

Recourse Debt	
Talen TLB-1 and TLB-2	\$ 1,077
Talen Senior Unsecured Notes	1,917
PEDFA Bonds	231
Talen RCF	342
Total Recourse Debt	\$ 3,567
(-) Less Cash ⁽⁵⁾	(153)
Total Recourse Debt, Net	\$ 3,414

Generation Assets for Secured Debt	
Susquehanna	H.A. Wagner
Brunner Island	Barney Davis
Montour	Laredo
Brandon Shores	Nueces Bay
Keystone / Conemaugh	PA Combustion Turbines

NorthEast Gas Gen Project Debt	
NorthEast Gas Gen TLB and Revolver	\$ 510
	10
Total Recourse Debt	\$ 520
(-) Less Cash ⁽⁵⁾	(26)
Total Recourse Debt, Net	\$ 494

LMBE-MC Project Debt	
LMBE-MC TLB	\$ 450
LMBE-MC RCF	-
Total Recourse Debt	\$ 450
(-) Less Cash ⁽⁵⁾	(62)
Total Recourse Debt, Net	\$ 388

Generation Assets	
Athens	
Millennium	

Generation Assets	
Lower Mt. Bethel	
Martins Creek	

Q4 2018 Leverage Metrics (Preliminary) ⁽⁶⁾

Senior Secured Leverage Ratio (not to exceed 4.25x)	1.77x
Total Leverage Ratio	4.97x

Recourse Debt ⁽¹⁾

	Interest Rate	Principal
Talen TLB-1 Due 2023	LIBOR + 4.00%	\$ 588
Talen TLB-2 Due 2024	LIBOR + 4.00%	489
Senior Secured Term Loans		\$ 1,077
2019 Notes	4.625%	\$ 5
2021 Notes	4.60%	144
2022 Notes	9.50%	393
2024 Notes	6.50%	83
2025 Notes	6.50%	543
2026 Notes	10.50%	610
2027 Notes	7.00%	20
2036 Notes	6.00%	119
Senior Unsecured Notes		\$ 1,917
Series 2009A Due 2038	6.40%	\$ 100
Series 2009B Due 2038	5.00%	50
Series 2009C Due 2037	5.00%	81
PEDFA Bonds		\$ 231
Talen RCF (2022 Expiration) ⁽²⁾	LIBOR + Margin	\$ 342
Total Recourse Maturities		\$ 3,567

Non-Recourse Debt

	Interest Rate	Principal
NorthEast Gas Gen TLB Due 2022 ⁽³⁾	LIBOR + 6.00%	\$ 448
NorthEast Gas Gen TLC Due 2023 ⁽⁴⁾	LIBOR + 6.00%	62
NorthEast Gas Gen RCF ⁽³⁾	LIBOR + 6.00%	10
Total NorthEast Gas Gen Debt		\$ 520
	Maturity (yr)	Total
LMBE-MC TLB Due 2025	LIBOR + 4.00%	450
LMBE-MC RCF	LIBOR + 4.00%	-
Total LMBE-MC Debt		\$ 450

Note: 2018 results are preliminary and subject to audit, expected to be completed in March 2019

(1) As of December 31, 2018, pro forma for January 2019 tender offer, drew \$142 million on revolver and retired \$200 million of debt.

(2) Applicable margin is 1.75% for base rate loans and 2.75% for LIBOR-based loans.

(3) Beginning 4Q 2018, the effective annual cash interest is L+400bp with an incremental 200bp of PIK interest that accrues to TLC.

(4) All debt service is PIK. TLC (and any accrued PIK) would be payable upon exit or refinancing of the NE Gas Gen non-recourse indebtedness.

(5) Recourse cash is comprised of bank deposits at Talen Energy Supply and restricted commodity margin deposits; Project cash is comprised of bank cash and restricted debt reserve deposits

(6) Leverage metrics consistent with debt compliance calculations, as provided on a quarterly basis, as a compliance requirement in the corporate revolver and term loan facilities

Balance Sheet Discipline

Managing Maturities and Cost of Capital



Recent Financing Highlights

Credit Facilities	<ul style="list-style-type: none"> \$450 million Term Loan B \$25 million Revolving Credit Facility
Tenor	<ul style="list-style-type: none"> Term Loan B : 7 years Revolving Credit Facility: 5 years
Amortization (TLB)	1.00% per annum, payable quarterly
Cash Sweeps (Term Loan B)	Equal to the greater of: 1) 50% of excess cash flow and 2) Up to 100% of excess cash flow until quarterly target debt balance is achieved
LIBOR Spread	L+400
Credit Ratings	Ba3 / BB- (1 Recovery)
Call Protection	101 soft call (6 months)
Reserves	<ul style="list-style-type: none"> Debt Service Reserve Major Maintenance Reserve

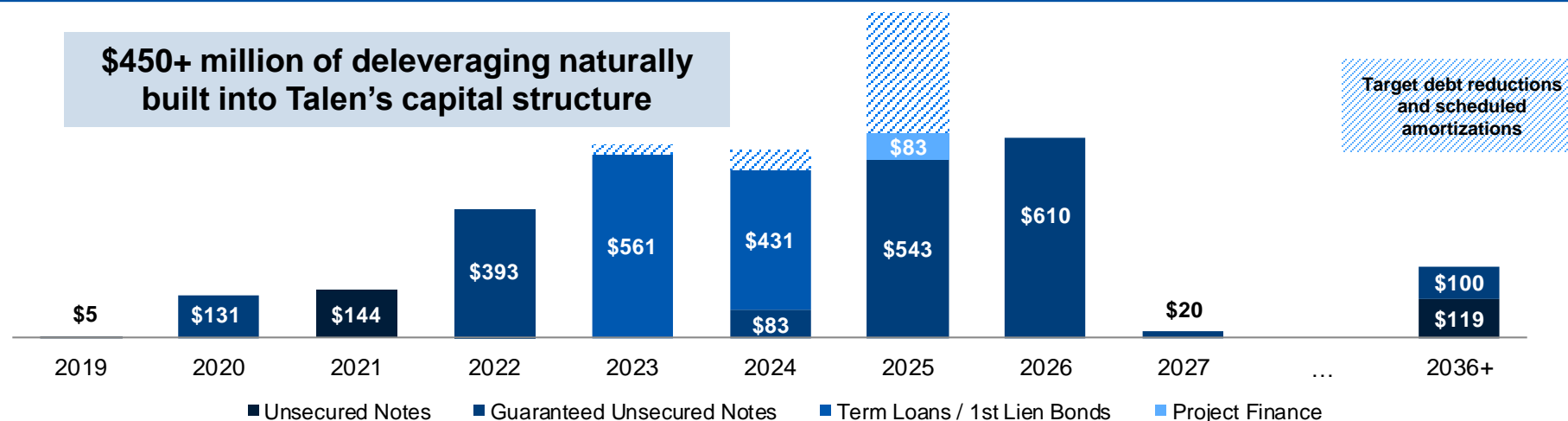
\$384 million net proceeds used to pay down 2021 Talen corporate maturity

January 2019 Tender Offer

Description	Tendered Principal	Cash Cost for Principal	Discount Captured	Cash Int. Savings
6.00% Talen 2036 Notes	\$ 81	\$ 43	\$ 38	\$ 4.9
6.50% Talen 2024 Notes	15	11	4	1.0
7.00% Talen 2027 Notes	9	7	2	0.6
6.50% Talen 2025 Notes	50	38	12	3.2
10.50% Talen 2026 Notes	15	14	1	1.6
4.60% Talen 2021 Notes	11	10	1	0.5
4.625% Talen 2019 Notes	12	12	-	0.5
9.50% Talen 2022 Notes	7	7	-	0.7
Total	\$ 200	\$ 142	\$ 58	\$ 13.0

\$200 million of principal retired for \$142 million of cash; \$13 million of annual interest expense savings

Debt Maturity Profile⁽¹⁾



(1) Pro forma as of January 18, 2019 for contractual debt paydowns and January 2019 tender offer

Establishing Financial Policy

Stepping into Talen 3.0

Objective

- ✓ Acknowledge feedback
- ✓ Provide clarity
- ✓ Improve credit profile
- ✓ Enhance future strategic options
- ✓ Maximize total enterprise value

Framework

- ✓ Forward-looking & dynamic
- ✓ Evaluating:
 - ✓ Liquidity
 - ✓ Cash flows
 - ✓ Market
 - ✓ Leverage
 - ✓ Capital plans
- ✓ Target leverage in the 4s prior to future equity distributions

Expectations

- ✓ Improve credit perception
- ✓ Influence ratings trajectory
- ✓ Access to capital
- ✓ Lower cost of capital
- ✓ Maintain liquidity through revolver extension

Talen's financial policy framework reflects our commitment to the balance sheet, our belief in our people and our assets, and our strong conviction in Talen's future.

Operational Excellence: Susquehanna Benchmarking

Brad Berryman, Chief Nuclear Officer

Susquehanna Case Study

Aerial View of Plant Site



- Second largest dual unit Boiling Water Reactor (BWR) in the United States with a combined capacity of 2,600 megawatts
 - Facility commissioned in 1981 (Unit 1) and 1983 (Unit 2)
 - Licensed to operate through 2042 (Unit 1) to and 2044 (Unit 2)
 - Opportunity to extend licenses to 2062 and 2064
 - Talen is the only U.S. privately held company with a nuclear operating license
- 2,100 Acre Site – one of the largest nuclear power plant sites in the United States
- Susquehanna has always had strong community support
- Provides **more than triple** the carbon free generation than all renewables sources in the state combined
- Station performance on an upward trajectory to safe, reliable, top decile performance

A unique asset among the 98 nuclear reactors in the U.S.

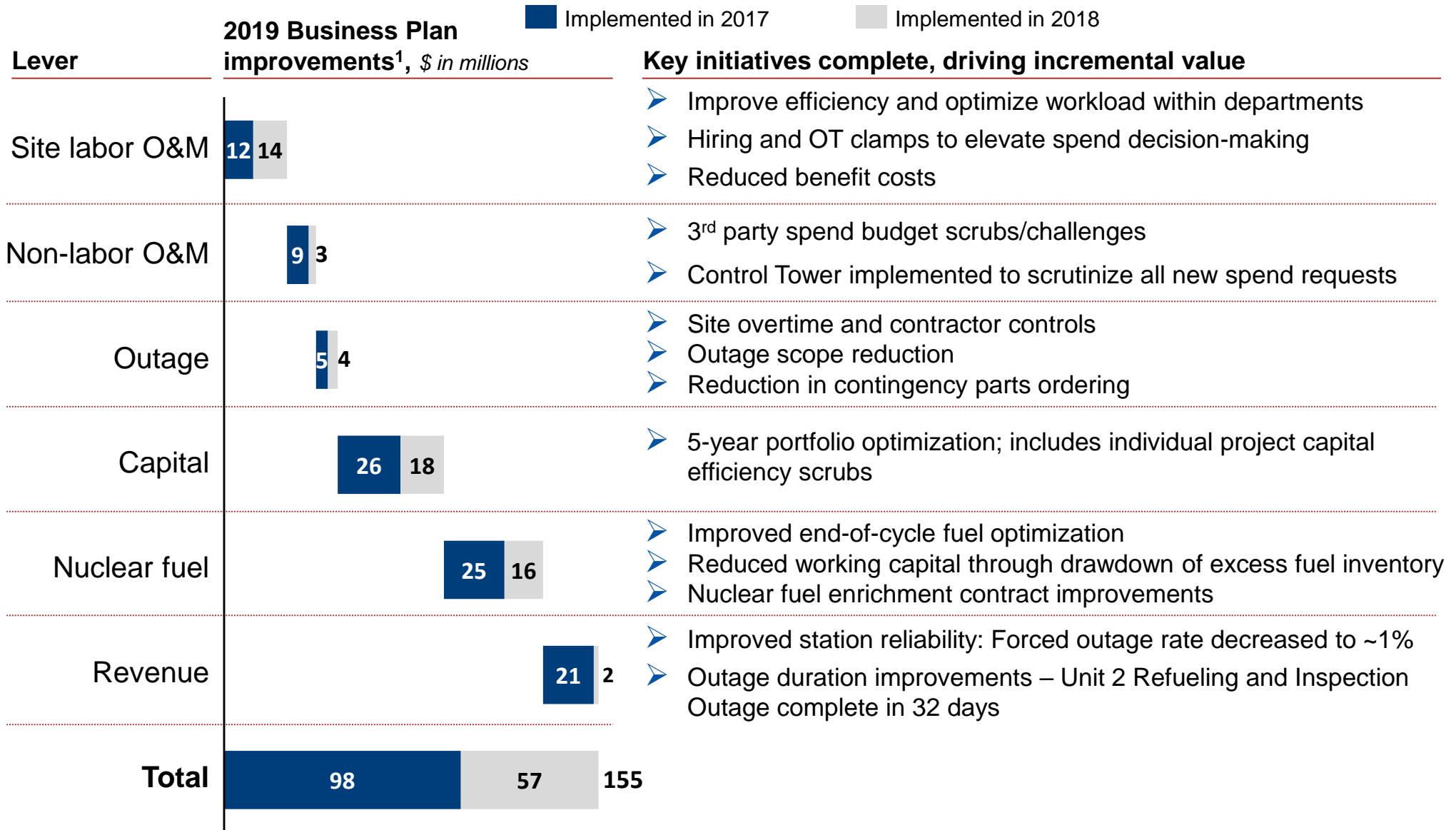
First...Declaration to be “The Best” Safety, Reliability, Cost

- Strengthened oversight
 - Nuclear Safety Review Board / Nuclear Oversight Committee – respected industry executives
- Executive engagement / reinforcement of – Safety, Reliability, Cost
- Surgical approach to identify the best and brightest to lead the station.
- Eliminated 70% of the meeting time at the site
 - Be with the people, Understand the problems
 - Immediately affect change with a “go now” mentality
- Focus on value added activity
 - No value = stop doing it
 - The best way to do it VS The way we always have done it
- Employee focus groups
 - Input into all decisions / Station goal setting
- All levels of the organization welcomed a new way of doing business
 - Don’t try harder, try better...Simplification, Engagement, and Teamwork

Immediately start “acting our new way of thinking”

Susquehanna Case Study

Performance Initiatives Delivered \$155MM in improvements



¹ 90% Talen share

Driving Change in Culture

Susquehanna

Simplification / Engagement / Teamwork

- Reduced number of organizational layers to minimize bureaucracy and expedite decision making - flat and nimble
- Simplified processes and procedures for more intuitive approach to operations and maintenance evolutions (un-learning years of a concept that more must be better)
- Innovation central captured all front line employee ideas to improve the business
 - Over 1,000 ideas captured since inception
 - Over 500 ideas fully implemented
- Balanced approach to scoping projects and refueling outages to ensure safety and reliability, “the plant must run” is the heart and mind concept
 - Safety/Reliability coding of all work, removes the emotion

innovation Central "Top 10" ideas being pursued

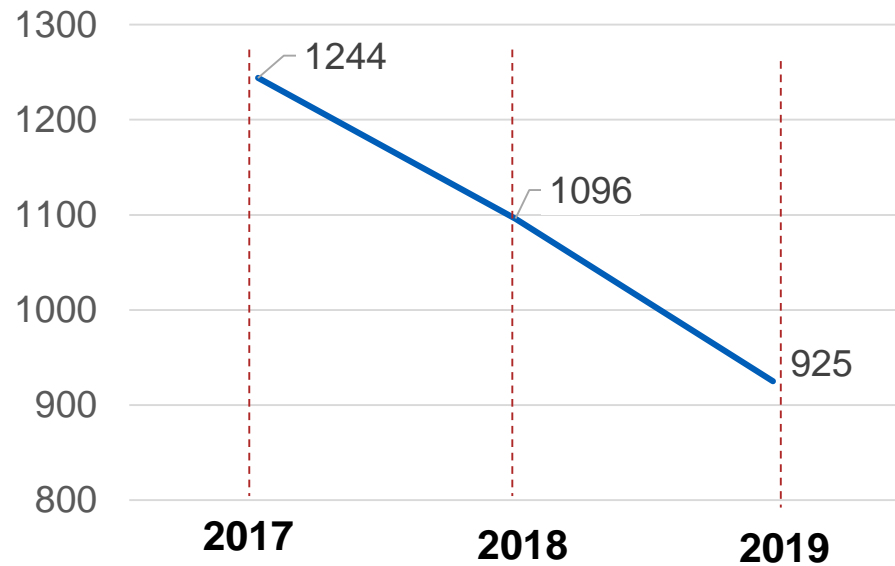
Idea	Owner	Next step(s)	Due date
1. Work Passages (Genetic Link)	SODEN	Set up work shop of all plant staff	4/1
2. Streamline Workbooks & Safety Meeting	Tom Pitt	Develop a standard procedure document	4/26
3. Consolidate Daily Ops - O&M D-LAP PROCEDURE	Tom Pitt	Set up meeting with all involved plant	4/26
4. Standardize & Optimize (Mistake to Mistake)	Mark Pitt	Completed	
5. Electronic Check-in/Out for the Scheduler (Monthly Ops)	D. Hargis	Completed	
6. Training / Refresher Program for Topical	Tom Voth	Underway	4/2
7. Change Alarm Dead Process - New Alarm/Dead Time/Signatures	Mike Tompey Joseph Connor	Underway	10/2
8. Alternative Work Schedules	David Harrison	In Progress	6/10
9. Standardize Outage Permits	Joe Kautzer	In Progress	6/10
10. Electronic Procedure Approval	Mike Pitt Tom Harrison	In Progress	6/10



Driving Change

Workforce Evolution and Capital Portfolio Optimization

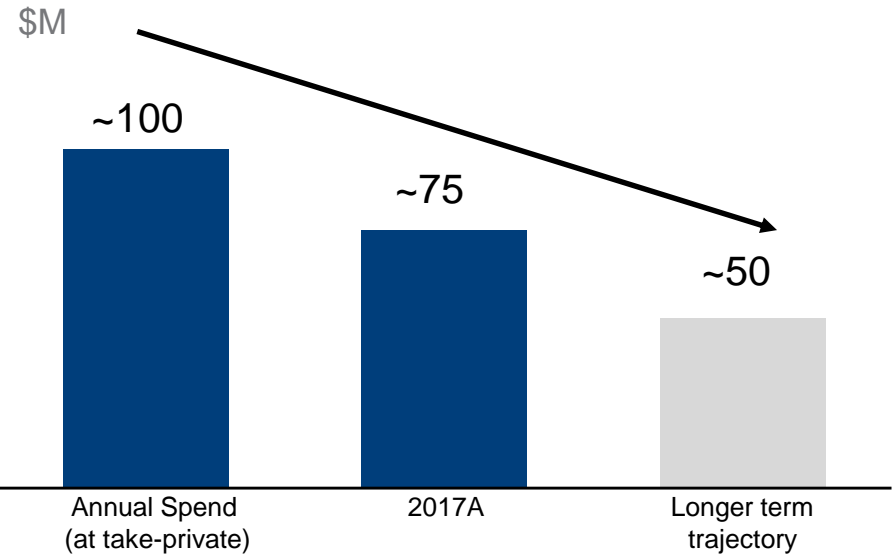
Staffing level, # FTE



➤ Staffing level progress driven by:

- De-layering organization management
- Simplifying work and improving work processes
- Employee-led efficiency improvements
- Workload reduction
- Re-aligning shift structures
- Cross-training personnel

Optimization initiative drove a reduction in overall capital portfolio spend ⁽¹⁾



1) 90% Talen share

➤ Significant shift in capital plan; achieved sustainable year-over-year reductions.

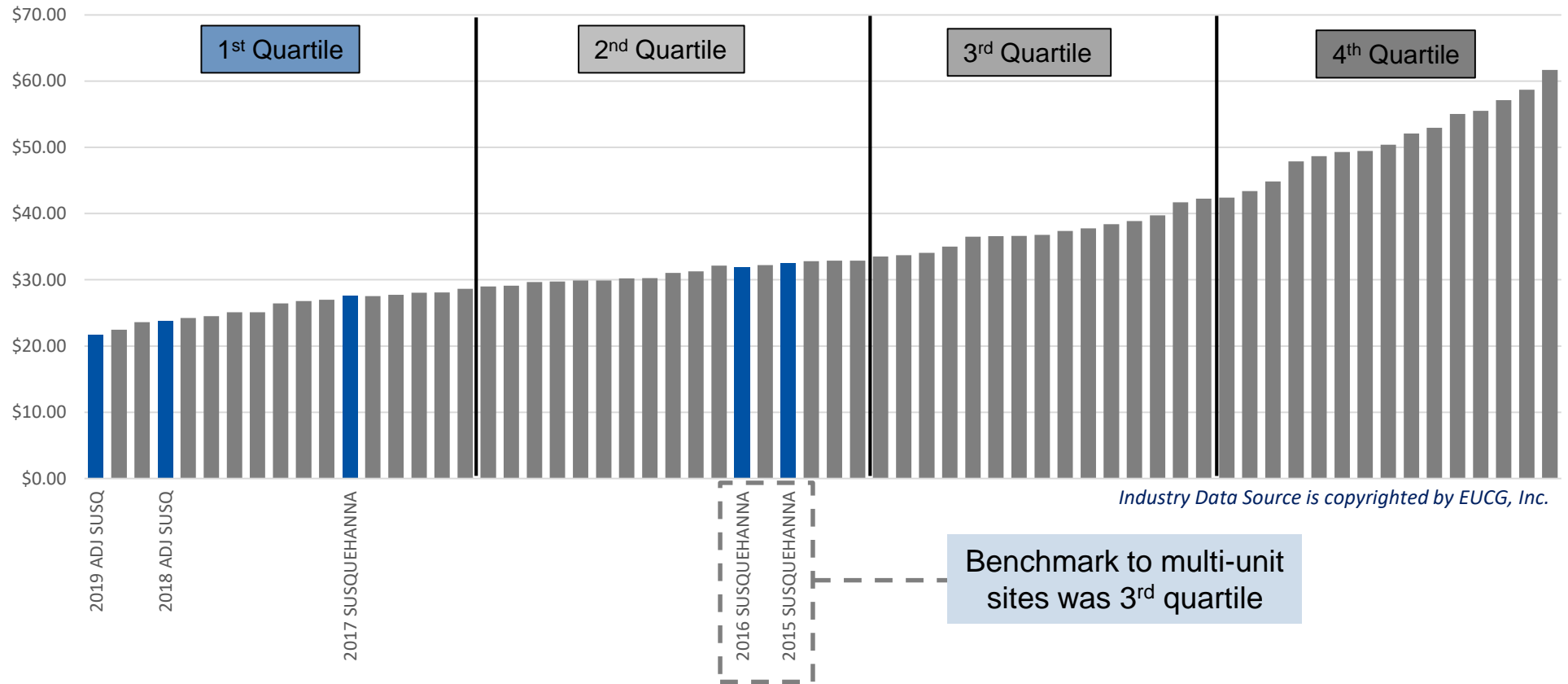
- Stakeholder input to create sustainable Long Term Asset Management plan
 - Bottom up approach, risk ranked
 - Removed some projects, significantly reduced scope of additional projects to address key risks
 - Changed strategy on recurring spend items to be more condition-based
 - Improved clarity on future project needs

No reduction in Safety or Reliability

Driving Change in Culture and Costs

Susquehanna

2017 TOTAL COST
\$/MWhr



Change in culture has driven projected industry leading cost performance

Operational Excellence: Panel and Case Studies

Cole Muller, Managing Director – Operational Excellence

Dustin Wertheimer, Divisional CFO – Susquehanna

Jason Endlich, Divisional CFO – PJM Fossil

Ryan Price, Vice President – Human Resources

Operational Excellence

Balanced approach to maximize financial performance

Cost control focus

- Aggressive cost reduction measures
- Avoid any capital-intensive investments unless critical for continued operation
- Maximizing run to failure equipment performance
- Lean staffing able to handle day-to-day issues

Balanced approach to capture best of both ends of spectrum

Plant performance

- Maximizing safe, reliable operation
- Minimize economic impact of plant outages (e.g., critical spares on hand, issues resolved efficiently)
- Ensure reliable performance in high-margin time periods (e.g., winter readiness)
- Selective investments to improve asset safety & reliability

Efficient cost structure

- Lean, high-performing organization with ability to flex resources across business units
- Spend scrutinized, but balanced against safety & risk

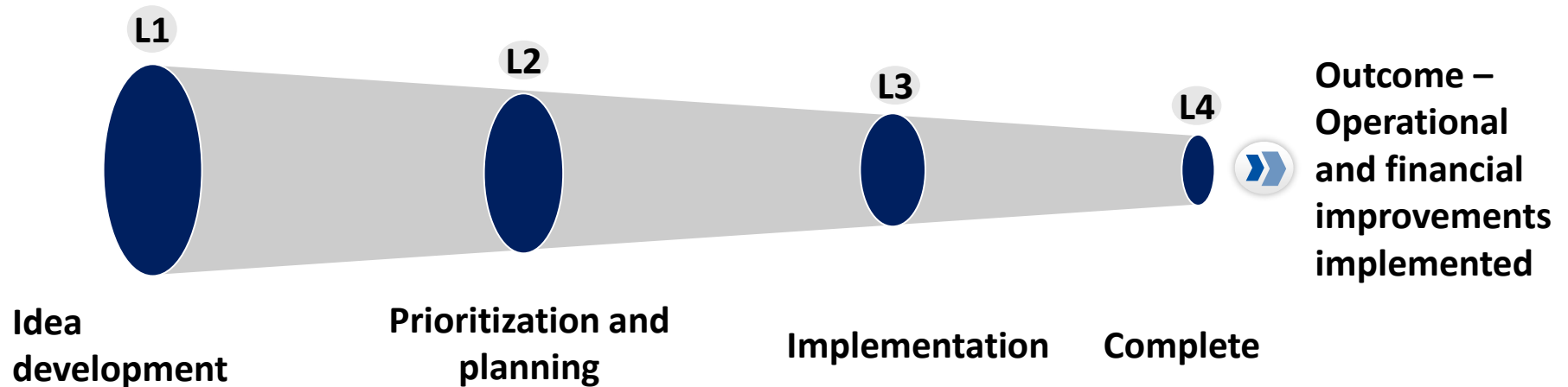
Plant performance focus

- Aim to maximize reliability
- Redundancy for all failure modes to ensure plant availability
- Frequent maintenance and equipment upgrades prior to end of useful life
- Large staff on-hand to tackle emergent issues

Operational Excellence

Continuous Improvement Process

- SSES Simplification, Engagement and Teamwork improvements in 2017/2018 leveraged systematic L1 → L4 process to capture value
- Leveraged similar process across the rest of our fleet
 - Particular focus on PJM Fossil
 - Process modified for distributed nature of plants – leveraged team across key plants
- ~1,000 ‘L1’ ideas developed across the fleet
 - Ideas from all sources – frontline workforce, managers, plant leadership teams
- Ideas systematically prioritized based on impact and feasibility
 - As initiatives progress, next wave of initiatives launched



Operational Excellence

Performance improvement achievements

(\$ in millions)		2019 Cash	
	Lever	Flow Increase	Examples of opportunity
Gross Margin	Plant performance	\$ 32	<ul style="list-style-type: none"> Lower min loads, increased ramp rates, lower start times, heat rate improvements, reduced auxiliary loads Fixing non-critical equipment deficiencies that lead to energy losses, seasonal de-rates VOM reductions – chemicals and water use optimization Reduced outage durations (optimized with spend)
	Fuel	21	<ul style="list-style-type: none"> Improvements in rail, coal contract prices, by-products sales
O&M	O&M Improvements	21	<ul style="list-style-type: none"> Workload streamlining at SSES, leading to organizational reductions Annual outage work scope optimization across Fleet Equipment upgrades that reduce O&M spend (E.g., Cooling Tower efficiency upgrades) Reduced general O&M spend (e.g., property tax reductions)
	Pension	21	<ul style="list-style-type: none"> Pension cost improvements and work-rule flexibility
	Total Adjusted EBITDA Improvements:	\$ 95	
CapEx	Projects	43	<ul style="list-style-type: none"> Project eliminations (low impact and risk) Competitive bidding projects (suppliers and labor types)
	Nuclear Fuel	18	<ul style="list-style-type: none"> Nuclear fuel design improvements; Fabrication, Enrichment and uranium contract optimization
	Additional FCF Improvements:	\$ 61	
	Total Improvements	\$ 156	

PJM Fossil

- **Martins Creek plant characteristics**
 - Ramp rate improved from 3 MW / min to 6 MW / min by standardizing practices across shifts
 - Reduce min loads by 30% to reduce off-peak loss
- **Brunner Island Mercury chemicals**
 - Identified and tested alternative chemicals to mitigate Mercury; improved emissions controls and reduced chemical spend
- **Wagner Demin make-up water equipment**
 - Equipment not available for past few years; Mechanic identified low-cost solution to repair system, avoiding Demin water truck spend (~\$100k), and eliminating winter risk
- **Capital project spend optimization. E.g.:**
 - Montour use of non-union labor in 2018 boiler project; 30%+ reduction in project cost and improved outcome of work
 - Brandon Shores competitive bidding for SSH project in 2019; ~30% spend reduction
- **Strategy for plants with 'no capacity' payments**
 - Bid select Sapphire units only in significant pricing periods to reduce O&M spend

SSES

- **"Lost MW" initiative**
 - Tracked down causes of ~10 MW losses on each unit; addressing key losses for U2 in 2019 outage
- **Staffing levels optimization**
 - Built target organizations with the department teams, and identified risk and workload / process changes necessary to support; Achieved reduction below target of 925 FTE
- **Outage work scope**
 - Work scope: Outage team developed systematic scope review process to address risk vs cost; ~10% reduction in scope
 - Outage duration: improved outage efficiency initiatives (aided by work scope reduction) has driven durations from 40+ days (2016) to plan of 32 days in 2019
- **Capital portfolio optimization: Chiller controls project example**
 - \$12M project in plan; Engineer identified method to reverse engineer needed parts to address obsolescence
- **Nuclear fuel enrichment**
 - Renegotiated 2nd enrichment contract; improved cash flow and extended through 2025

Nuclear Fuel Optimization

Case Study #1

Reduce excess fuel inventory

- ~\$40MM of excess uranium in inventory at the beginning of 2017
 - Approximately the quantity of uranium needed for one core re-load
- Drawdown of excess inventory allows for a one-time offset to future uranium purchases
 - Drawdown timing is spread across 2017-2019 due to existing uranium procurement contract commitments

Improve end-of-cycle fuel utilization

- Reduced amount of fuel required to load into reactor by extending unit “coast-down” into refueling outage by additional 30 days
 - ~5% reduction in fuel loading requirements
 - Revenue loss mitigated by shifting outage start to end of March, taking advantage of lower pricing

Re-negotiate “above market” enrichment contracts

- Two enrichments contracts with ~\$50MM in spend per year; contracts at significantly above market rates
- Re-negotiated first contract in 2017 (~ half of plant volume need) at 40% lower rate
- Renegotiated second contract in 2018. Reduced total annual enrichment payments below \$25MM

Average annual nuclear fuel spending has been reduced by over \$40 million per year compared to the forecast prior to take-private

Fuel, Rail, and Plant Characteristics

Case Study #2

Fuel

- Coal generators in the portfolio have state of the art emission controls, opening up a range of coal supply options
 - Supplier and contract-term diversity
 - 2019 fuel requirements under contract
 - Ability to reallocate supplies among plants
 - Deals struck at / below market rates

Rail

- Talen has transportation flexibility among the fleet of coal units
- Baltimore coal units ultimately deliver coal by barge and can access multiple domestic terminals served by either NS or CSX
- PA plants rely on Norfolk Southern, strong relationship
- Transportation contracts are structured to improve coal unit competitiveness and react to cyclical demand
- In 2018 Talen proved out rail oil delivery to Martins Creek
 - Increased logistical flexibility and speed of delivery
 - Access to lower cost bulk supplies

Commercial

- Plant operating characteristics optimized
 - Improved ramp rates, shortened start times, forced lost rates, and refinement of heat rate curves
 - Reduced minimum loads on major units

PJM optimization efforts noted here will drive \$39 million of the 2019 performance improvements

Evolution of IBEW Local 1600 CBA

Case Study #3

Preparation /Discovery

- Conduct town halls/roundtables at Local 1600 Plants
- Excel at the basics
- Communicate with plant leadership on “must haves” during negotiations
- Lead the way
- Road Shows

Strategy

- The Union owns the pension problem. Help us solve it, if possible.
- Open and honest communication - “Fair to the employee – Fair to Talen”
- Side Bars with Local 1600 leadership and Federal Mediator
- Desire to go big early - Company presented 122 proposals to the Union.
- Union presented nine (9) proposals to the Company.

Execution

- Achieved Memorandum of Agreement in August 2018
- 3-week voting campaign; ratified contract reached in September 2018
- Post-Ratification/Implementation:
 - Freeze Pension (12/31), Educate Management, Benefits/Payroll Configuration
 - Rebuild relationship w/ Union
 - New Local 1600 President who is willing to solve problems together.
 - Trust the process

Labor negotiation resulted in \$21 million economic benefit in 2018 and going forward

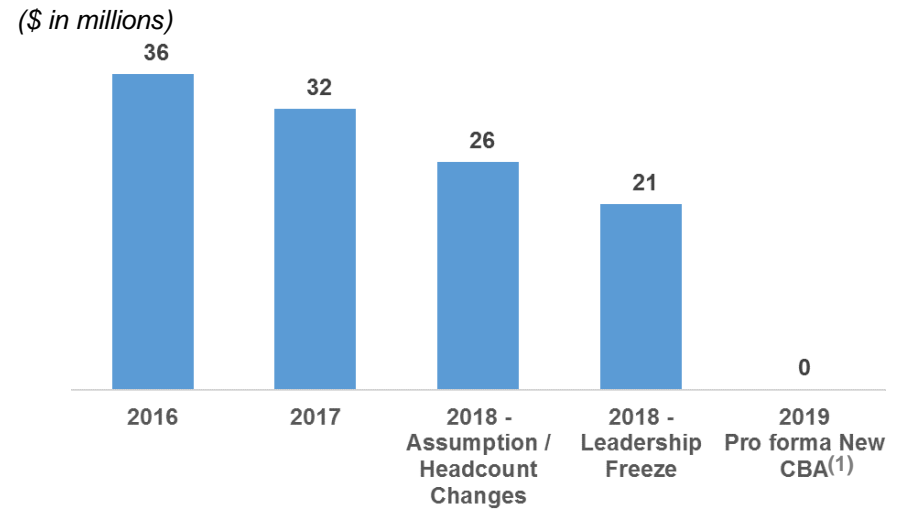
Labor Relations and Workforce Results

Case Study #3 Continued

Summary of Key Events

- Achieved new 5-Year collective bargaining agreement with IBEW Local 1600
- Modernized legacy utility agreement to meet demands of current competitive generation market construct
- Simplification, Flexibility, Cross-Utilization
- Focused on creating “One Talen”
- Annual economic benefit to Talen is ~\$20 million⁽¹⁾

Talen Energy Retirement Plan Service Cost⁽²⁾



Top Labor Negotiation Achievements

Pension

- Froze pension benefits for Local 1600 and remaining management employees (effective 12/31/18) following freeze for top-level leadership in Q1 2018

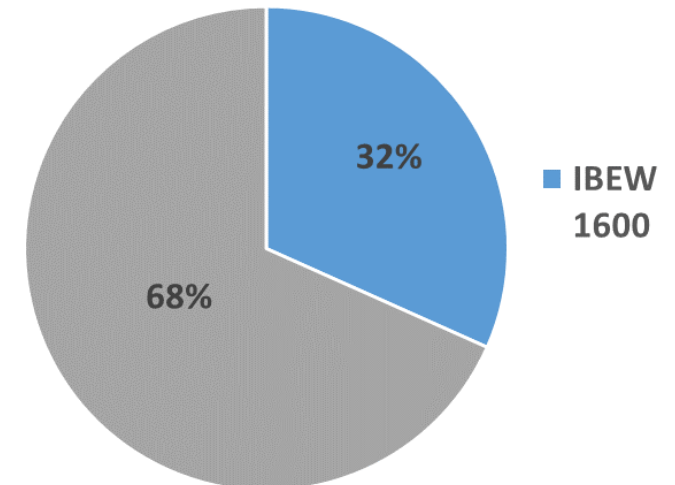
Healthcare

- Provided healthcare benefits at market rate, in line with management benefits.

Work Rules

- Removed restrictive work rules to allow for enhanced operational flexibility and productivity

Summary of Workforce Population



Successful labor negotiation helps drive toward “One Talen”

⁽¹⁾ Net benefit includes impact of new collective bargaining agreement and related impacts to non-union employees

⁽²⁾ Excludes Talen Montana Retirement Plan, Supplemental Compensation Pension Plan, and associated other post-employment benefit plans

Commercial Excellence:

John Norling, Senior Vice President – Commercial

Ralph Alexander, CEO

Alex Hernandez, CFO

Regulatory	<ul style="list-style-type: none">• Every Federal, State, ISO talking about power market reform• States (including Pennsylvania) have acted in absence of Federal action• Talen’s assets “low-carbon” and “grid resiliency” attributes valued by regulators
Volatility	<ul style="list-style-type: none">• Volatility has returned to our core markets (PJM, ERCOT, and NorthEast)• Talen fleet wins in “high vol” environment and is now competitive in “low vol” environment. Remember dispatch curve “inversion” ...
Fundamentals	<ul style="list-style-type: none">• We anticipate volatility will continue to be driven by several factors:<ul style="list-style-type: none">• PJM fleet gas heavy; heating gas demand trumps generation in winter• Finite gas infrastructure, Marcellus take-away capacity constrained• Capacity market reform uncertainties mitigating new build supply
Talen Commercial Capabilities	<ul style="list-style-type: none">• We are investing in commercial capabilities to create value during these dynamic market conditions• Continued strengthening in 3 areas: People, technology, processes

Market Update

Market Update: PJM and ERCOT

Key Takeaways

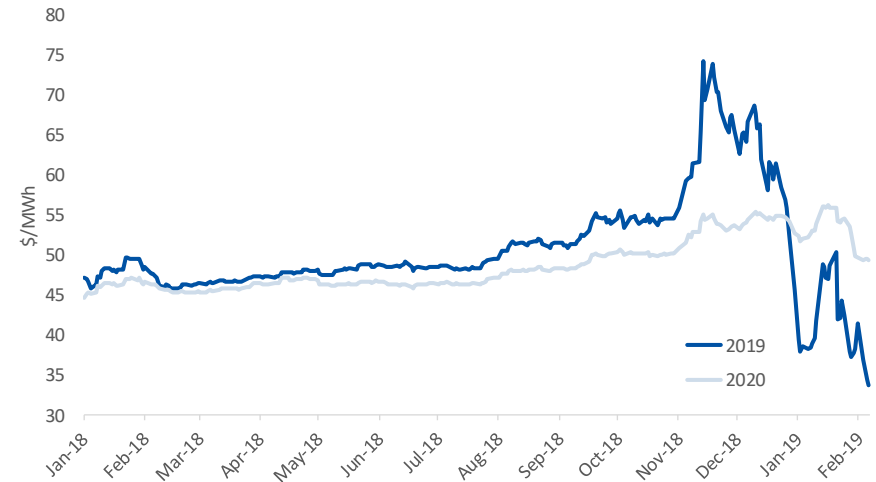
PJM: Higher forward pricing, volatility and congestion

- Winter weather driven spot price strength shifted the forward curve higher, though they have recently fallen on Northeastern gas availability improvement
- With higher prices has come increased price volatility
- Transmission maintenance and new build has driven exceptional locational basis volatility across PJM

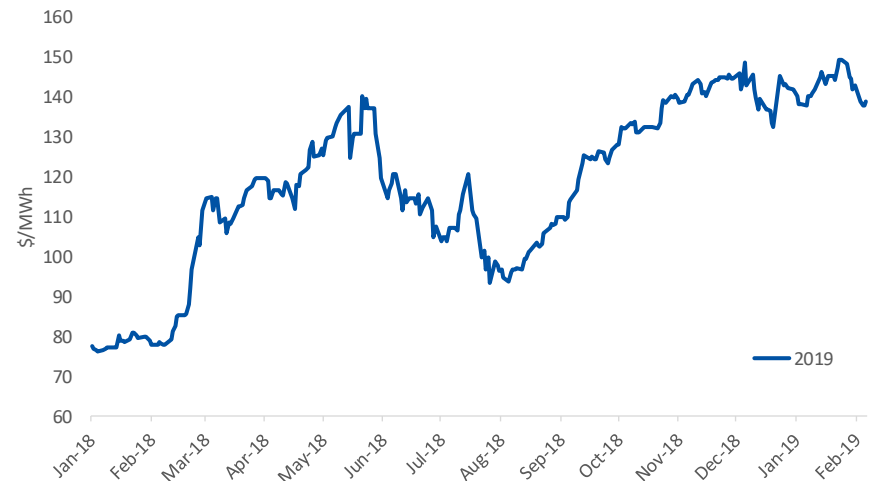
ERCOT: Supply/demand balance tightening, volatility returning

- Very low near-term reserve margin projections (<9% in 2019) continue to support the curve
- The summer 2019 contract rose steadily from August and now hovers below contract highs near \$150/MW
- The scarcity pricing (ORDC) formula was increased by 0.25 of a standard deviation, taking effect in 2019 with a second increase of the same size set for 2020

PJM Jan/Feb On Peak Historical Forwards



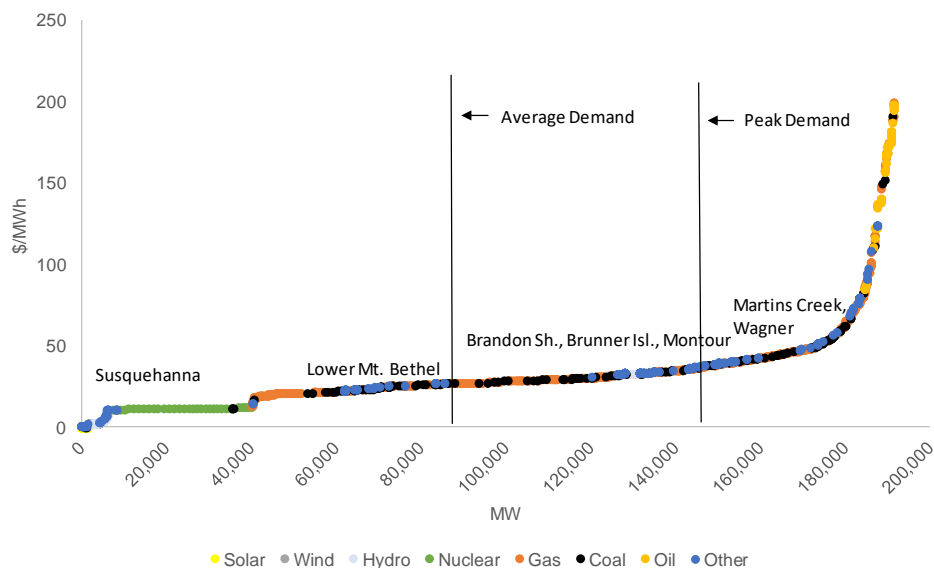
ERCOT-South Jul/Aug On Peak Historical Forwards



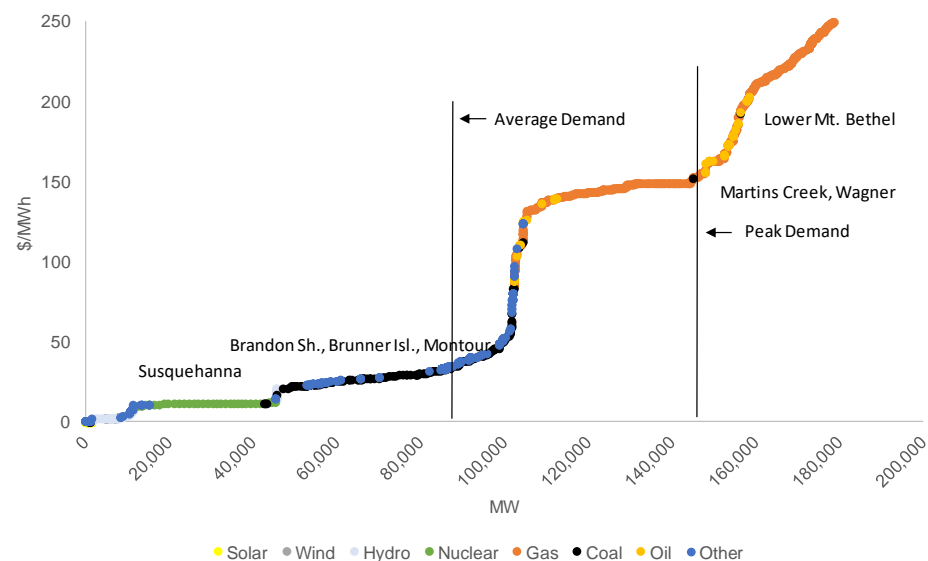
PJM Market Dynamics

The Portfolio is located in the MAAC region of PJM, the largest organized energy market in the world

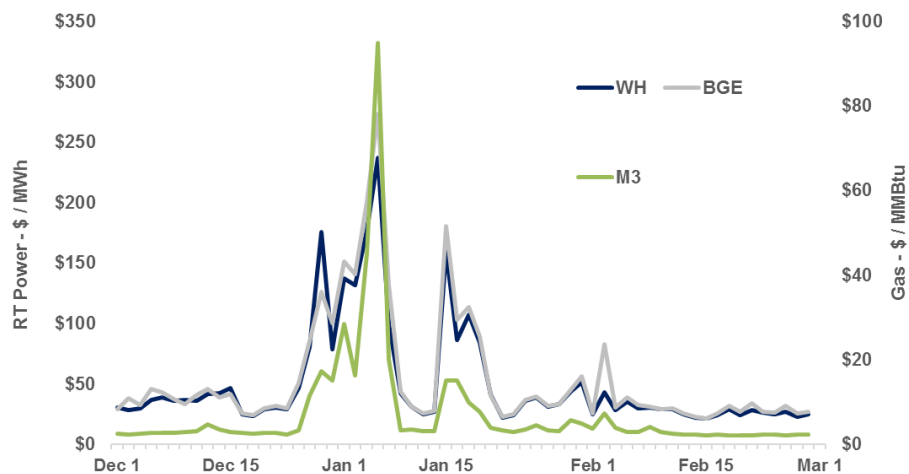
Low-Volatility Dispatch Curve



High-Volatility Dispatch Curve

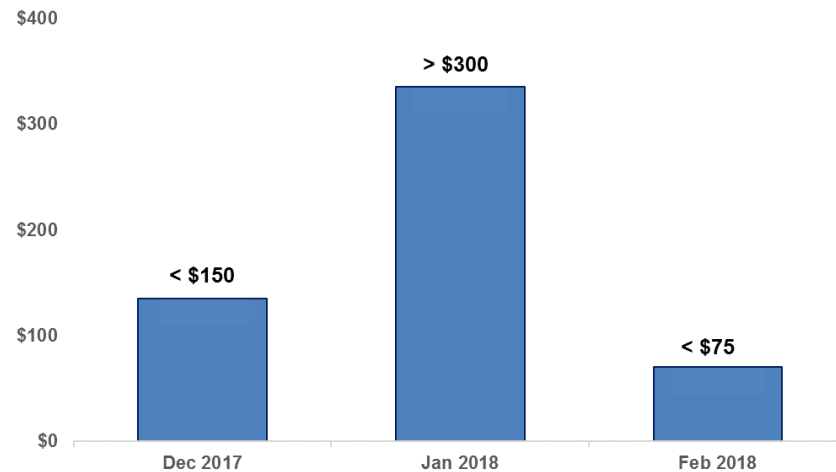


2017 / 2018 PJM Peak Prices



PJM Assets Open Margin ⁽¹⁾

(\$ in millions)



Source: PA Consulting, Talen
 (1) Includes capacity revenue of \$45 million, \$46 million, and \$42 million for Dec 2017, Jan 2018, and Feb 2018, respectively

Commercial Objective

- Measure the real optionality inherent in Talen’s natural position in ever greater detail
- Quantify the value of and risks associated with these exposures
- Decide how best to monetize each component for highest risk adjusted return

Expanding Capabilities

Improvements

People

- Quants
- FTR Specialists
- Gas Team

Process

- Risk Policy & RMC
- Desk Structure

Systems

- Align upgrade
- C-Quant
- TLP Model

Enhanced Capabilities

- **Quantitative analytics**

- **Risk Management**

- **Reporting**

Example – Montour Winter Hedging

Levels of Refinement	Capability added
Level 1 Buy coal, sell power	Ongoing
Level 2 Actively manage congestion exposures with Financial Transmissions Rights (FTRs)	Q2 - 2018
Level 3 Quantify exact congestion balance of total Talen portfolio under various gas pricing regimes	Dec - 2018
Level 4 Close gas/oil “hedge-gap” inherent in portfolio congestion balance	Jan - 2019
Level 5 Create option structures to increase basis hedge effectiveness	Under-development

“Fractal”, “Storage-Wars”, “The Tardis” – however you describe Talen’s portfolio... its commercial potential is vast

Market and Risk Management Update

Risk Management Overview

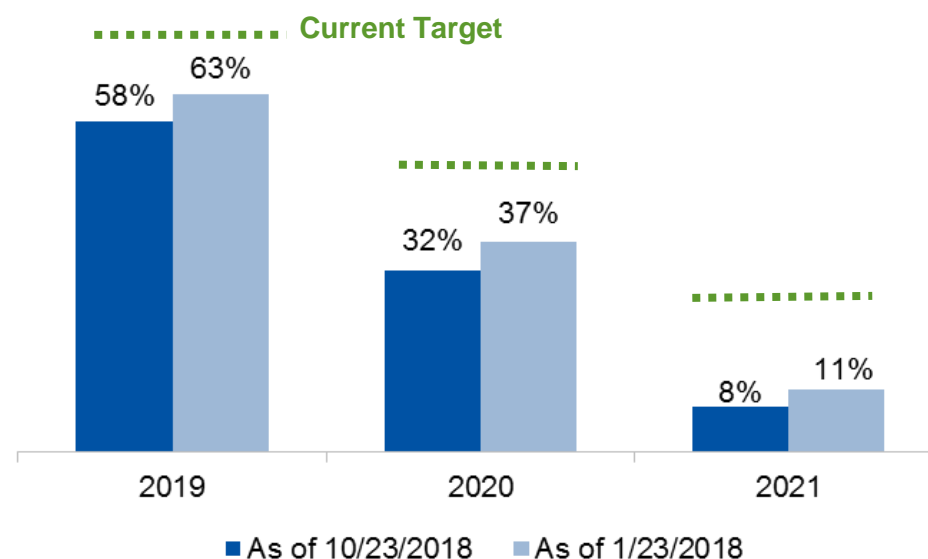
We are exposed to financial risks arising from our business, including market and commodity price risk, credit risk, and interest rate risk....

- The hedging and optimization strategies used by our commercial and credit groups help to mitigate these risks within a structured financial risk management program
- The Company's Risk Management Committee, comprised of senior management across the business and support functions, oversees the management of these risks in accordance with our risk policy
- The overall objective of the financial risk management program is portfolio optimization to minimize near-term future cash flow volatility while preserving the flexibility to capture long-term market opportunities

Key Control Activities

- Credit Review and Approval
- Validation of Hedging Transactions
- Verification of Risk and Transaction Limits
- Portfolio Stress Tests (Sensitivity Analysis)
- Gross Margin at Risk Analysis
- Daily Portfolio Reporting

Total Portfolio Generation Hedges ⁽¹⁾



(1) Hedge percentages based upon expected generation