GREAT PLAINS ENERGY

Proud Past. Confident Future.

Fourth Quarter and Year-End 2015 Earnings Presentation

February 25, 2016

Forward-Looking Statements

Statements made in this presentation that are not based on historical facts are forward-looking, may involve risks and uncertainties, and are intended to be as of the date when made. Forward-looking statements include, but are not limited to, the outcome of regulatory proceedings, cost estimates of capital projects and other matters affecting future operations. In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, Great Plains Energy and KCP&L are providing a number of important factors that could cause actual results to differ materially from the provided forward-looking information. These important factors include: future economic conditions in regional, national and international markets and their effects on sales, prices and costs; prices and availability of electricity in regional and national wholesale markets; market perception of the energy industry, Great Plains Energy and KCP&L; changes in business strategy, operations or development plans; the outcome of contract negotiations for goods and services; effects of current or proposed state and federal legislative and regulatory actions or developments, including, but not limited to, deregulation, re-regulation and restructuring of the electric utility industry; decisions of regulators regarding rates the companies can charge for electricity; adverse changes in applicable laws, regulations, rules, principles or practices governing tax, accounting and environmental matters including, but not limited to, air and water quality; financial market conditions and performance including, but not limited to, changes in interest rates and credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs; impairments of long-lived assets or goodwill; credit ratings; inflation rates; effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments; impact of terrorist acts, including but not limited to cyber terrorism; ability to carry out marketing and sales plans; weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs; cost, availability, quality and deliverability of fuel; the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results; ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages; delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects; Great Plains Energy's ability to successfully manage transmission joint venture; the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks; workforce risks, including, but not limited to, increased costs of retirement, health care and other benefits; and other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. Other risk factors are detailed from time to time in Great Plains Energy's and KCP&L's quarterly reports on Form 10-Q and annual report on Form 10-K filed with the Securities and Exchange Commission. Each forward-looking statement speaks only as of the date of the particular statement. Great Plains Energy and KCP&L undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Today's Topics

Financial Highlights and Business Update (Terry Bassham, Chairman, President and CEO)

- 2015 results
- 2016 EPS guidance range and long-term growth targets
- Legislative and regulatory priorities
- Update of strategic plan

Financial Review (Kevin Bryant, SVP – Finance and Strategy and CFO)

- Fourth quarter and full-year 2015 results
- 2016 earnings drivers
- 2017 to 2020 considerations

Opening Remarks and Business Review

Terry Bassham

Chairman, President and CEO

2015 Financial Results and Long-Term Targets

- Solid execution of our 2015 plan
  - Fourth quarter EPS of $0.15 compared with $0.12 in 2014
  - Full year EPS of $1.37 compared with $1.57 in 2014
- 2016 EPS guidance range of $1.65 to $1.80
- Targets through 2020
  - Annualized EPS growth of 4% to 5%
  - Enhanced dividend growth of 5% to 7%
  - Dividend payout ratio of 60% to 70%
- Balanced total shareholder return profile

EPS Growth of 4% - 5%[1] (2016 - 2020)

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Enhanced Dividend Growth of 5% - 7% Dividend Payout Ratio of 60% - 70% (2016-2020)

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Attractive Platform for Shareholders

1. Based on our 2016 earnings per share guidance range of $1.65 - $1.80

Legislative and Regulatory Priorities

- Partnering with policy makers and other utilities on comprehensive, performance-based statewide energy legislation for investor owned utilities in Missouri
- GMO filed $59.3 million general rate case on February 23, 2016
- File abbreviated rate case filing for KCP&L Kansas by November 2016
- Evaluating KCP&L Missouri rate case filing in the second half of 2016
- Monitoring recent developments regarding the Clean Power Plan

Clear Focus

Continue to promote the economic strength of the region, improve the customer experience and grow earnings

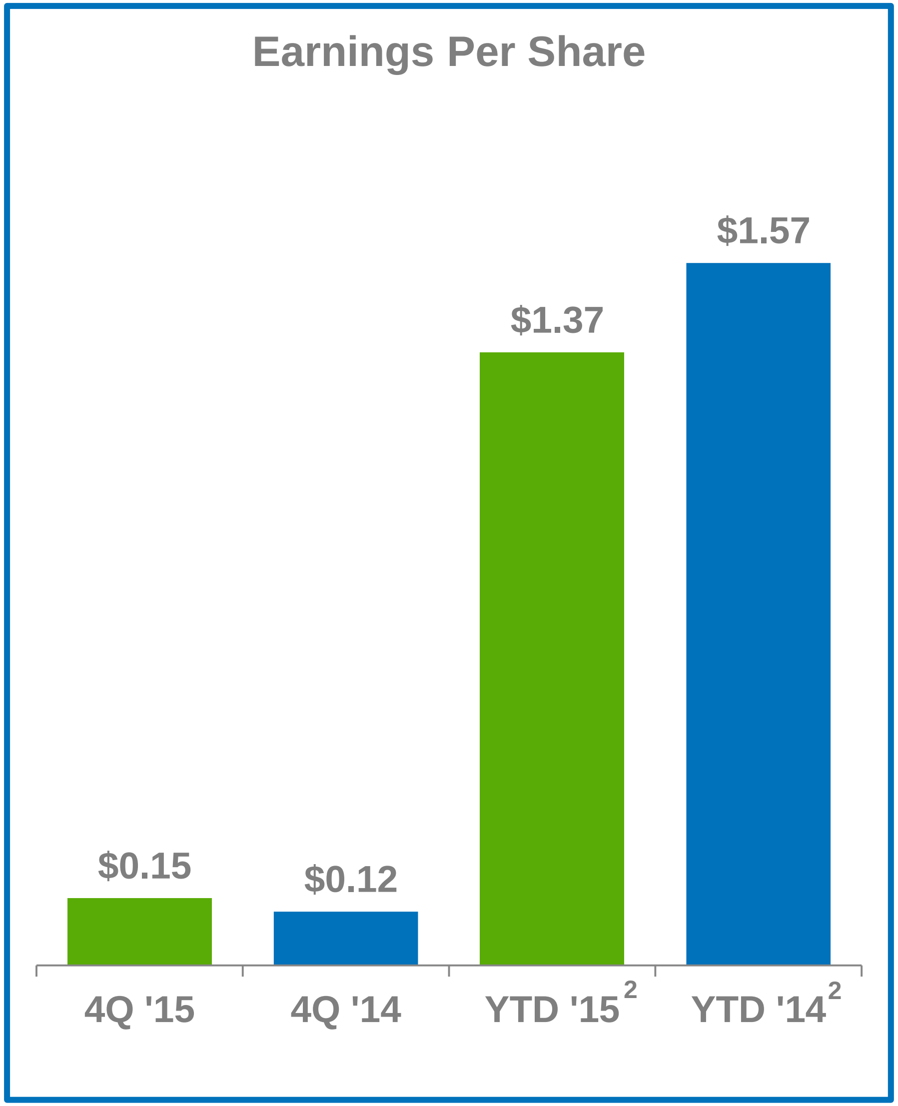
Best in Class Electric Utility Operations	Customer Experience	Targeted Investment Opportunities
❑ Disciplined execution to deliver reliable and low cost power ❑ Focused on earning our allowed return by actively managing regulatory lag ❑ Proactive economic development	❑ Responsive to changing customer expectations ○ Technology investments that facilitate more informed customer interaction ○ Expand comprehensive suite of energy-related products and services	❑ Balanced strategic growth initiatives through national transmission opportunities and flexibility for opportunistic growth

Financial Review

Kevin Bryant

SVP – Finance & Strategy and CFO

Earnings – 2015 versus 2014



EPS: 2015 Compared to 2014[1]		
	4Q	YTD[2]
New Retail Rates	$0.11	$0.14
Weather	($0.07)	($0.10)
WN Demand	$0.02	$0.02
KCP&L MO Wholesale Margin	-	($0.07)
Transmission	($0.01)	($0.03)
Fuel & Purchased Power	-	$0.06
Other Margin	$0.07	$0.07
O&M	($0.02)	$0.03
AFUDC	($0.03)	($0.12)
Depreciation & Amortization	($0.02)	($0.10)
2014 Release of Uncertain Tax Positions	-	($0.05)
Other	($0.02)	($0.05)
Total	**$0.03**	**($0.20)**

1. Numbers may not add due to the effect of dilutive shares on EPS
2. As of December 31

2016 Earnings Guidance

2016 Earnings Per Share Guidance Range of $1.65 to $1.80

- **Earnings drivers:**
  - Full year of new retail electric rates and cost recovery mechanisms for KCP&L in Missouri and Kansas that became effective September 29, 2015 and October 1, 2015, respectively
  - Weather-normalized demand growth of flat to 0.5%, net of energy efficiency
  - Disciplined cost and capital management
- **Assumptions:**
  - NOLs and tax credits minimizing cash income tax payments
  - No planned long-term debt issuances[1]
  - No plans to issue equity[1]

1. Financing plans are subject to change, depending on capital expenditures, internal cash generation, rating agency views, market conditions, and other factors

Earnings Target: 2016 through 2020

Earnings growth driven by investments in regulated utility infrastructure, disciplined cost management and national transmission opportunities

Targeting earnings growth of 4% to 5% from 2016 to 2020[1]

Rate Base Growth	Optimizing Cost Structure	Incremental Growth Opportunities
❑ Targeting compound annual rate base growth of 2% to 3%[2] ○ Modernizing Delivery infrastructure including physical & cyber security and system reliability ○ Implementing environmental and sustainability initiatives ○ Customer-focused initiatives	❑ Disciplined cost and capital management ❑ Regulatory and legislative initiatives to optimize regulatory model to address cost recovery, promote infrastructure investments	❑ Transource national transmission investments and other targeted investments within the energy value chain ❑ Retail weather-normalized demand growth driven by regional economic activity

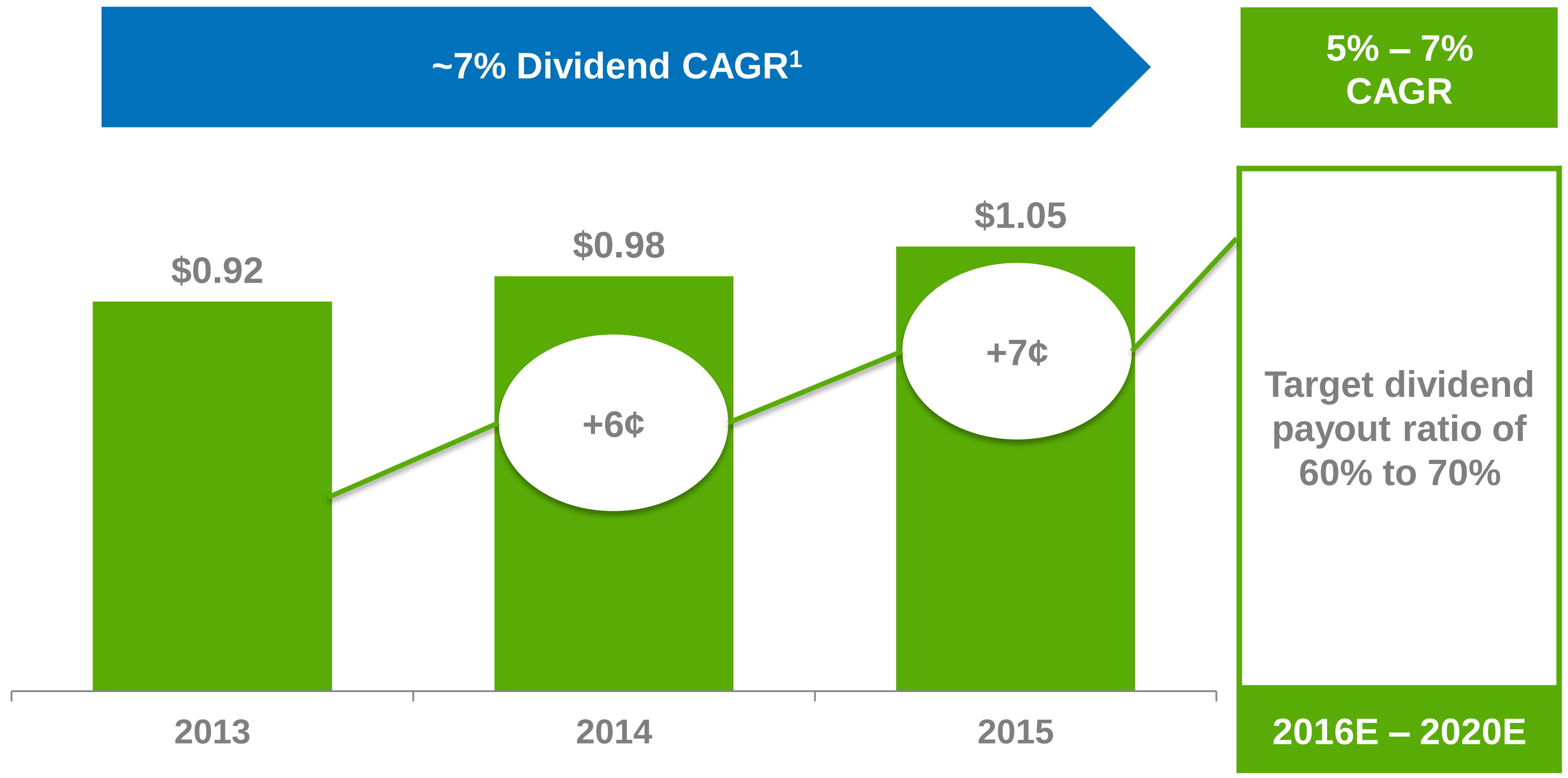
1. Based on our 2016 earnings per share guidance range of \$1.65 - \$1.80
2. Includes the impact of bonus depreciation

2017 through 2020 Considerations

- **Earnings drivers:**
  - Retail weather-normalized demand growth of flat to 0.5%, net of energy efficiency
  - Focused cost and capital management
  - More active general rate case filings for KCP&L Missouri and Kansas, and GMO
- **Assumptions:**
  - Utilization of NOLs and tax credits, minimizing cash income taxes
  - Long-term debt re-financings
  - No plans to issue equity

Dividend Target: 2016 through 2020

Increasing cash flexibility expected to drive dividend growth and potential share repurchases



1. 2013 – 2015 based on fourth quarter declared dividend

Great Plains Energy

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Appendix

Great Plains Energy Reconciliation of Gross Margin to Operating Revenues (Unaudited)

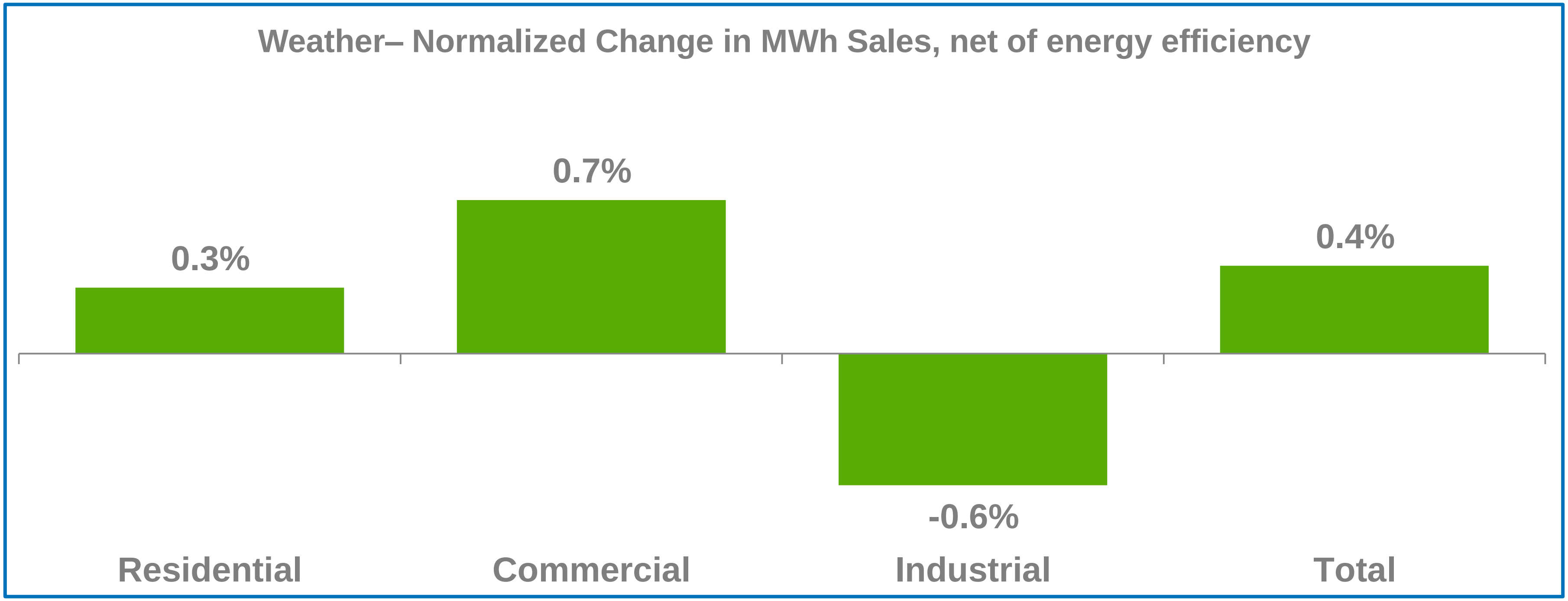
	Three Months Ended December 31 (millions)		Year Ended December 31 (millions)	
	2015	2014	2015	2014
Operating revenues	$ 562.7	$ 552.2	$ 2,502.2	$ 2,568.2
Fuel	(89.4)	(96.3)	(421.4)	(489.2)
Purchased power	(41.0)	(67.6)	(187.3)	(253.3)
Transmission of electricity by others	(24.0)	(19.1)	(89.1)	(74.7)
Gross margin	**$ 408.3**	**$ 369.2**	**$ 1,804.4**	**$ 1,751.0**

Gross margin is a financial measure that is not calculated in accordance with generally accepted accounting principles (GAAP). Gross margin, as used by Great Plains Energy, is defined as operating revenues less fuel, purchased power and transmission. The Company’s expense for fuel, purchased power and transmission, offset by wholesale sales margin, is subject to recovery through cost adjustment mechanisms, except for KCP&L’s Missouri retail operations prior to September 29, 2015. As a result, operating revenues increase or decrease in relation to a significant portion of these expenses. Management believes that gross margin provides a more meaningful basis for evaluating the Electric Utility segment’s operations across periods than operating revenues because gross margin excludes the revenue effect of fluctuations in these expenses. Gross margin is used internally to measure performance against budget and in reports for management and the Board of Directors. The Company’s definition of gross margin may differ from similar terms used by other companies. A reconciliation to GAAP operating revenues is provided in the table above.

Weather-Normalized Demand Trends

- 2015 marked third consecutive year of positive demand growth
- 2015 results in line with full-year projections of flat to 0.5%, net of energy efficiency

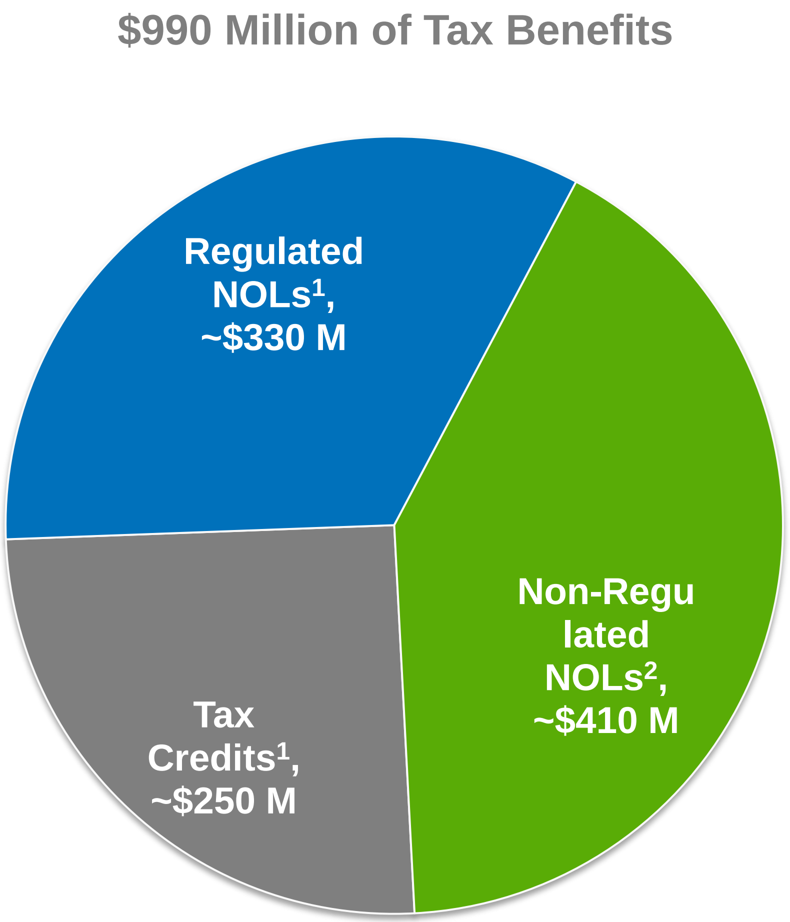
Full-Year 2015 Compared to Full-Year 2014



2016 projections of flat to 0.5%, net of energy efficiency

Favorable Income Tax Position

- Approximately $990 million in future income tax benefits at year-end 2015:
  - ~ $740 million of tax benefits on net operating loss (NOL) carryforwards
  - ~ $250 million tax credit carry forwards primarily related to advanced coal investment tax credits (ITC), wind production tax credits, and alternative minimum tax (AMT) credits
- Do not anticipate paying significant income taxes through approximately 2024



1. Regulated NOLs are included in rate base and tax credits are generally included in cost of service as generated except for ITC which is amortized over the life of the property it relates to
2. Non-Regulated NOLs, which include approximately $350 million related to the GMO acquisition, are not included in rate base

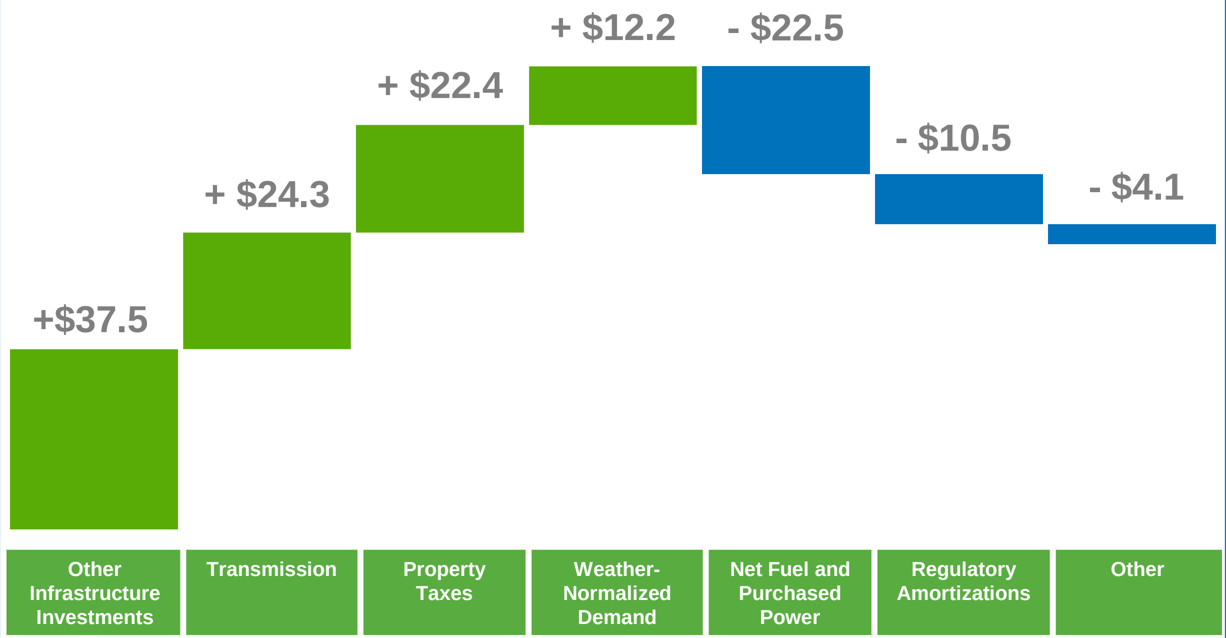
GMO Consolidated Rate Case Summary

Case Number	Date Filed	Requested Increase (in Millions)	Requested Increase (Percent)	Rate Base (in Millions)	ROE	Cost of Debt	Rate – Making Equity Ratio	Capital Structure ROR	Anticipated Effective Date of New Rates
ER-2016-0156	2/23/16	$59.3	8.17%	$1,906[1]	9.9%	5.09%	54.83%	7.73%	1/22/17

Rate Case Attributes:

- ❑ Test year ended June 30, 2015 with a requested July 31, 2016 true-up date
- ❑ Primary drivers:
  - New infrastructure investments to ensure reliability, security and dependable service to customers
  - GMO standalone capital structure
  - Average of projected 2017-2018 expenses for both transmission costs and Critical Infrastructure Projection Standards (CIPS) / Cybersecurity

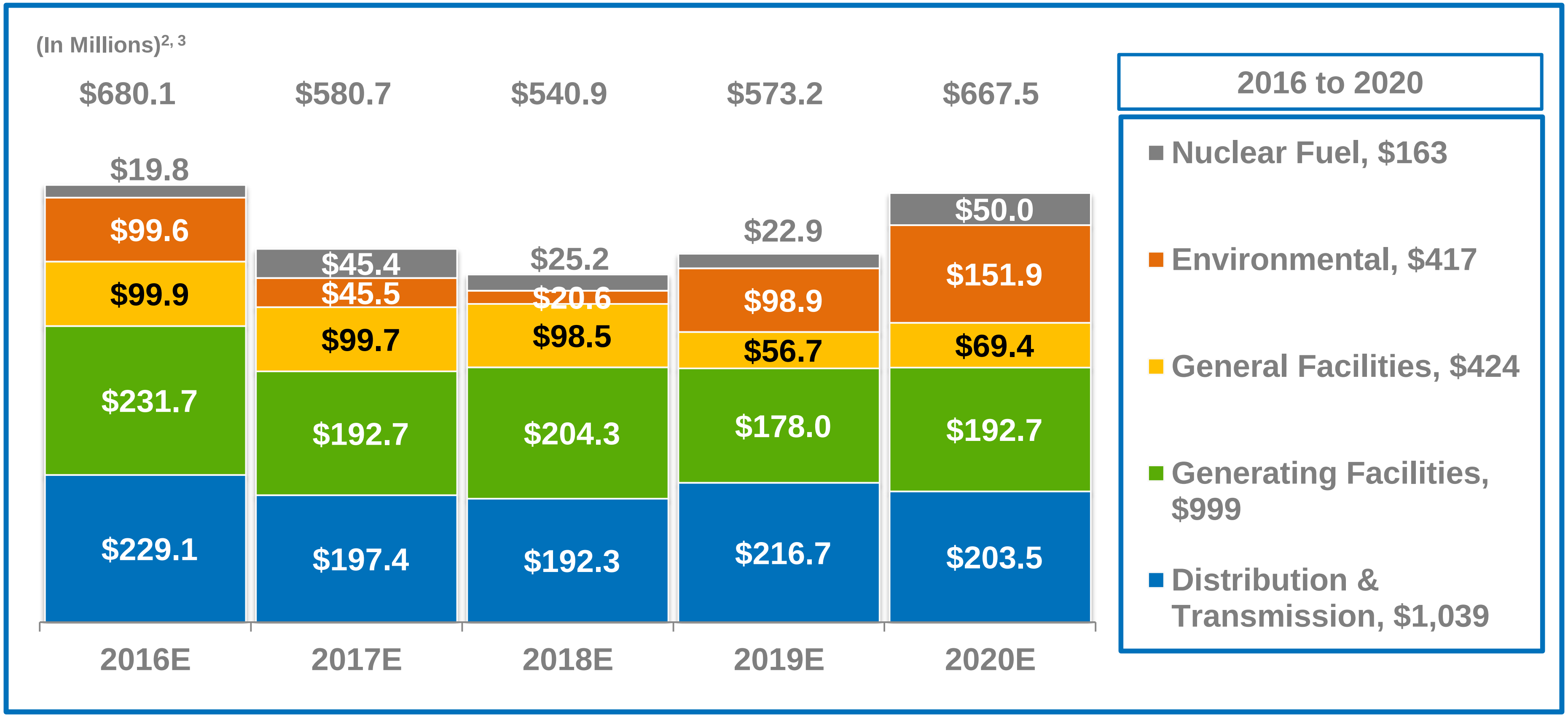
$59.3 Million Rate Increase Request:



1. Projected rate base is approximately $76 million or 4% higher than at the conclusion of the last GMO rate cases for the MPS and L&P jurisdictions

$3.0 Billion Projected Utility Capital Expenditures

- Targeting compound annual rate base growth of 2% to 3% including impacts of bonus deprecation
- No equity needs, capital expenditures to be financed with long-term debt and internally generated funds[1]

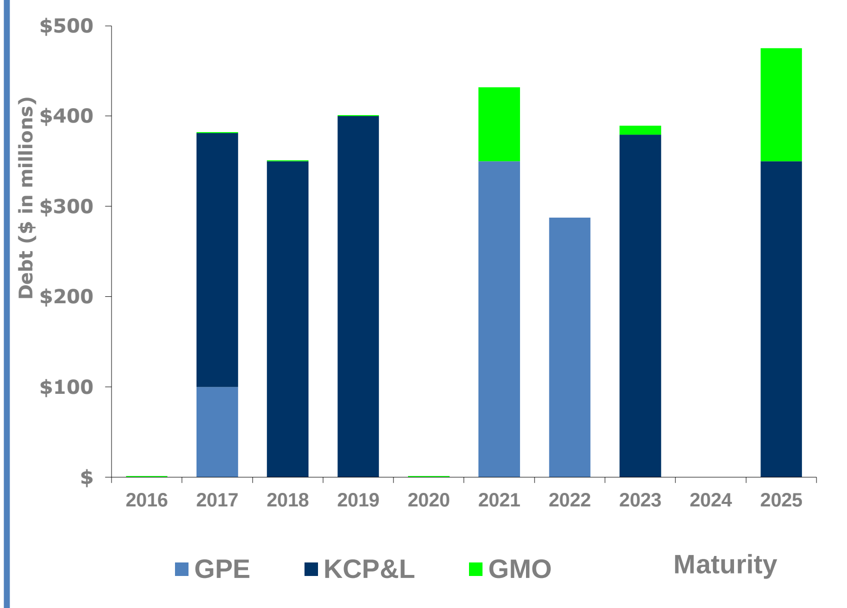


1. Financing plans are subject to change, depending on capital expenditures, internal cash generation, rating agency views, market conditions, and other factors
2. Projected capital expenditures for KCP&L and GMO; excludes Allowance for Funds Used During Construction (AFUDC)
3. Great Plains Energy accounts for its 13.5% ownership in Transource Energy, LLC (Transource) under the equity method of accounting. Great Plains Energy's capital contributions to Transource are not reflected in projected capital expenditures

December 31, 2015 Debt Profile and Credit Ratings

($ in Millions)	Great Plains Energy Debt							
	KCP&L		GMO[1]		GPE		Consolidated	
	Amount	Rate[2]	Amount	Rate[2]	Amount	Rate[2]	Amount	Rate[2]
Short-term debt	$ 290.3	0.80%	$ 108.7	0.86%	$ 10.0	1.94%	$ 409.0	0.84%
Long-term debt[3]	2,563.1	4.94%	447.7	5.04%	735.4	5.30%	3,746.2	5.02%
Total	**$2,853.4**	**4.52%**	**$556.4**	**4.22%**	**$745.4**	**5.26%**	**$4,155.2[4]**	**4.61%**

Long-Term Debt Maturities[5]



Current Credit Ratings

	Moody's	Standard & Poor's
<u>Great Plains Energy</u>		
Outlook	**Stable**	**Stable**
Corporate Credit Rating	-	BBB+
Preferred Stock	Ba1	BBB-
Senior Unsecured Debt	Baa2	BBB
<u>KCP&L</u>		
Outlook	**Stable**	**Stable**
Senior Secured Debt	A2	A
Senior Unsecured Debt	Baa1	BBB+
Commercial Paper	P-2	A-2
<u>GMO</u>		
Outlook	**Stable**	**Stable**
Senior Unsecured Debt	Baa2	BBB+
Commercial Paper	P-2	A-2

[1] Great Plains Energy guarantees approximately 25% of GMO's debt; [2] Weighted Average Rates – excludes premium/discounts and other amortizations; [3] Includes current maturities of long-term debt; [4] Secured debt = $692M (17%), Unsecured debt = $3,463M (83%); [5] Includes long-term debt maturities through December 31, 2025