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Rating Agency Presentation 2016

# JEA is Among the Best-Run Electric Utilities in the Country

Since we last met...

- Proactively increased base rates several years ahead of scheduled need in order to stabilize financial metrics and accelerate debt pay down
- Paid down \$150 million debt for a total of \$1.3 billion since 2010 and committed to accelerate \$190 million more early debt pay down over the next three years
- Capital program includes \$735 million of projects over the next 5 years with no new debt and no rate increases
- Environmental risks reduced due to election results, ensuring continued fuel diversity for the foreseeable future
- New five-year contribution agreement completed and pension reform underway

Financial metrics have steadily improved since 2012 and support a credit rating upgrade

## JEA is Among the Best-Run Water & Wastewater Utilities in the Country

Since we last met...

- Continued improvement in debt and liquidity metrics
- Maintained superior financial and operational metrics
- Overall sales growth continued in FY16 with 2.7% customer growth and 5.2% growth in unit sales, including 48% growth in reclaimed water
- Paid down \$33 million debt for a total of \$417 million since 2011
- Continued robust \$923 million capital program over the next five years is manageable and expected to be cash funded with no rate changes and no new debt

Financial metrics have steadily improved since 2012 and support a credit rating upgrade

# JEA is Among the Best-Run Electric Utilities in the Country

Since we last met...

- Proactively increased base rates several years ahead of scheduled need in order to stabilize financial metrics and accelerate debt pay down
  - Eliminated any material financial impact of any construction delays at Plant Vogtle
- Fuel diversity provides a natural hedge for fuel price volatility
  - Environmental risks reduced due to election results, ensuring continued fuel diversity for the foreseeable future
- Fuel stabilization fund covers over 40% of our annual fuel burn
- New five-year contribution agreement completed and pension reform underway
- Rates are at the median in the state and 7% below national average and expected to remain stable for at least five years while others are experiencing rising costs
- Capital program includes \$735 million of projects over the next 5 years with no new debt and no rate increases

Financial metrics have steadily improved since 2012 and support a credit rating upgrade

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- Continued to cash fund growth projects
- Maintained superior operational performance
- Overall sales growth continued in FY16 with 2.7% customer growth and 5.2% growth in unit sales, including 48% growth in reclaimed
- New five-year contribution agreement completed and pension reform underway
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Financial metrics have steadily improved since 2012 and support a credit rating upgrade

# JEA is Among the Best-Run Electric Utilities in the Country

Since we last met...

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  - Eliminated any material financial impact of Plant Vogtle construction delays
- Rates are at the median in the state and 7% below national average, and expected to remain stable for at least five years while others are experiencing rising costs
- Election results reduce carbon regulation risk and stranded assets risk
- Paid down \$150 million debt for a total of \$1.3 billion since 2010 and committed to accelerate \$190 million more early debt pay down over the next three years
- Capital program includes \$735 million of projects over the next 5 years with no new debt and no rate increases

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Financial metrics have steadily improved since 2012 and support JEA's AAA credit rating



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- An aerial night view of a city skyline, likely Pittsburgh, featuring a prominent bridge with blue lights over a river. The city lights are visible in the background under a dark blue sky.
- I Introduction (5)
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# Agenda

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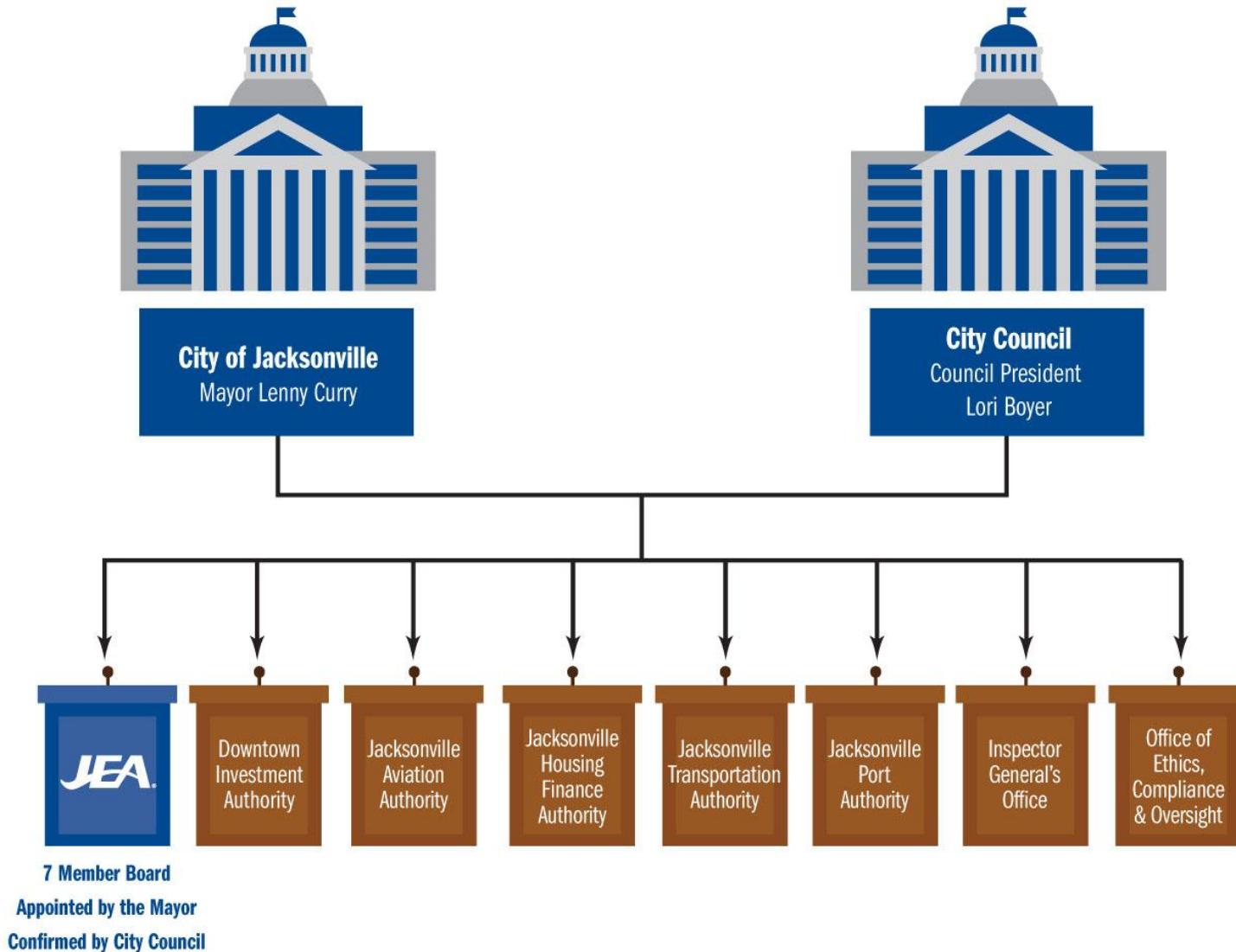


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# Introduction

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# COJ's Independent Authorities and Agencies



# JEA Board of Directors

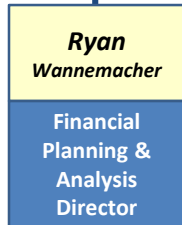
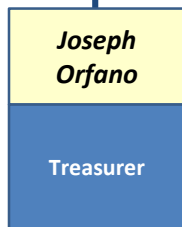
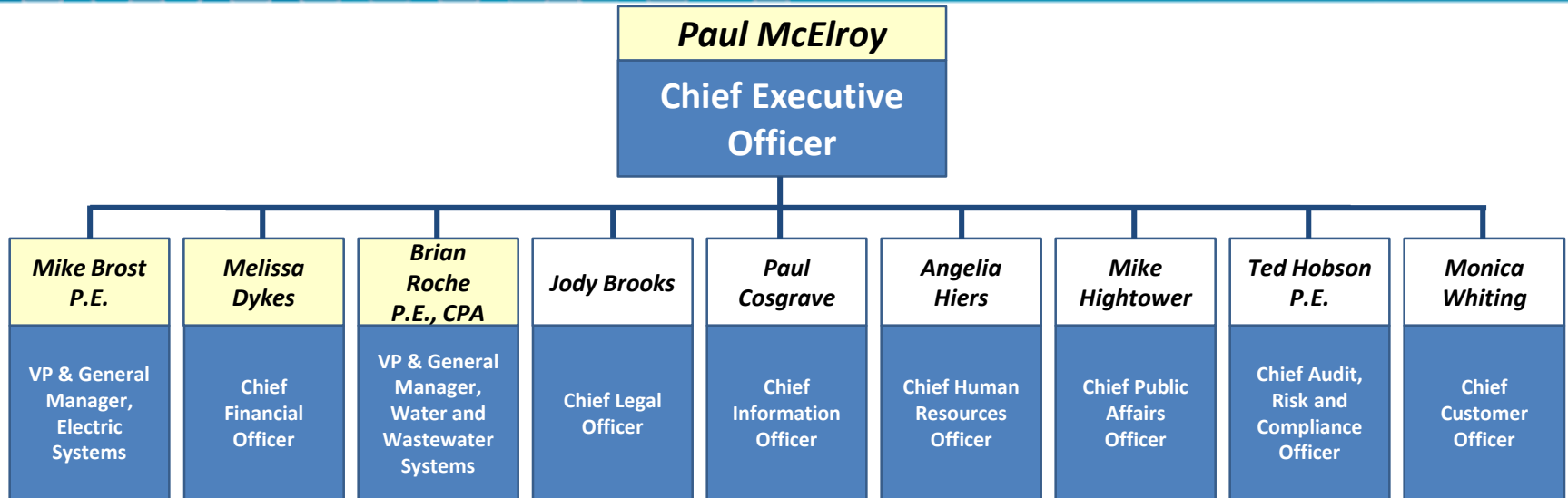
- Municipal electric system since 1895 and independent agency of the City of Jacksonville, Florida since 1968
- Seven member Board of Directors whose primary responsibilities are policy, strategy and rate making
  - Appointed by the Mayor, confirmed by City Council to four-year staggered terms
  - Community leaders, professionals and business people
  - Variable fuel rate adjustment process, concluded within seven days
- Finance and Audit Committee oversees financial policy, financial reporting, auditing, budgeting and enterprise risk management

Name	Occupation	Term	
		Began	Ends
Tom Petway	Chairman of the Board, The Petway Companies	10/28/15	02/28/18
Edward Burr	President and CEO, Green Pointe Holdings, LLC	11/25/15	02/28/17
Delores Kesler	Chairman & CEO of Adium, LLC	10/28/15	02/28/20
Husein Cumber	Executive Vice President, Florida East Coast Industries, Inc.	02/28/14	02/28/18
Kelly Flanagan	Senior VP and CFO, Jacksonville Jaguars, LLC	11/25/15	02/28/20
G. Alan Howard	Founder & President, Milam Howard Nicandri Dees and Gillam, P.A.	02/10/16	02/28/19
Fredrick Newbill*	Pastor, First Timothy Baptist Church	TBD	TBD

\*Nominated to replace Warren Jones



# JEA Senior Leadership Team



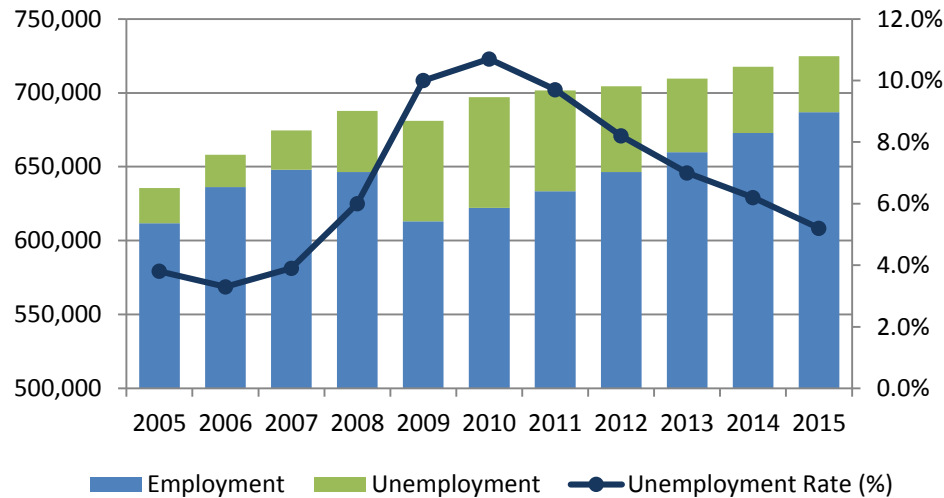
- Industry Leadership**
- American Association of Blacks in Energy
  - American Public Power Association
  - American Water Works Association
  - Association of Edison Illuminating Companies
  - Florida Electric Power Coordinating Group, Inc.
  - Energy Central
  - Florida Reliability Coordinating Council
  - Florida Water Environmental Association
  - Florida Municipal Electric Association
  - JDP Executive Council
  - Large Public Power Council
  - North American Electric Reliability Corp.
  - North American Transmission Forum
  - The Energy Authority
  - Water Customer Care Forum
  - Water Environment Research Foundation

- Community Leadership**
- American Red Cross
  - Five Star Veterans Center
  - Florida Association of Professional Lobbyists
  - Florida Governor's Mansion Foundation
  - Florida House – Special Projects
  - Florida Ounce of Prevention
  - Florida's Embassy in Washington, DC
  - Girl Scouts of America
  - Habijax
  - Hospice of Northeast Florida
  - Jacksonville Chamber of Commerce
  - Jacksonville Urban League
  - Leadership Florida/Jacksonville
  - Museum of Science and History
  - OneJax
  - Rotary Clubs of Jacksonville
  - Take Stock in Children
  - The Bridge of NE Florida
  - United Way
  - University of North Florida
  - VyStar Credit Union



# Economic Snapshot

## Employment & Unemployment

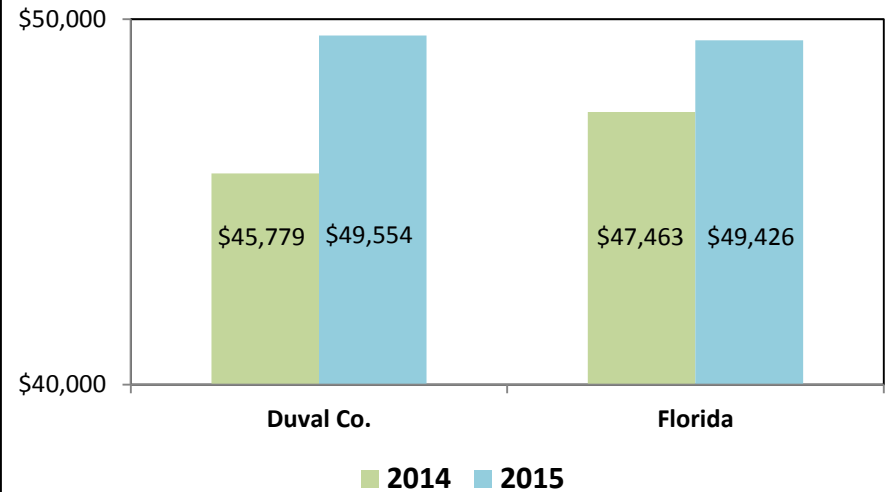


Source: Labor Market Statistics, Local Area Unemployment Statistic Program  
 FREIDA (Florida Research and Economic Information Database Application)  
 Annual not seasonally adjusted labor force, employment and unemployment data in Jacksonville MSA

**The unemployment rate in August 2016 for the Jacksonville MSA is 4.7%**

Source: Bureau of Labor and Statistics  
 Unemployment Rates for Metropolitan Areas, Not Seasonally Adjusted

## 2015 Median Household Income

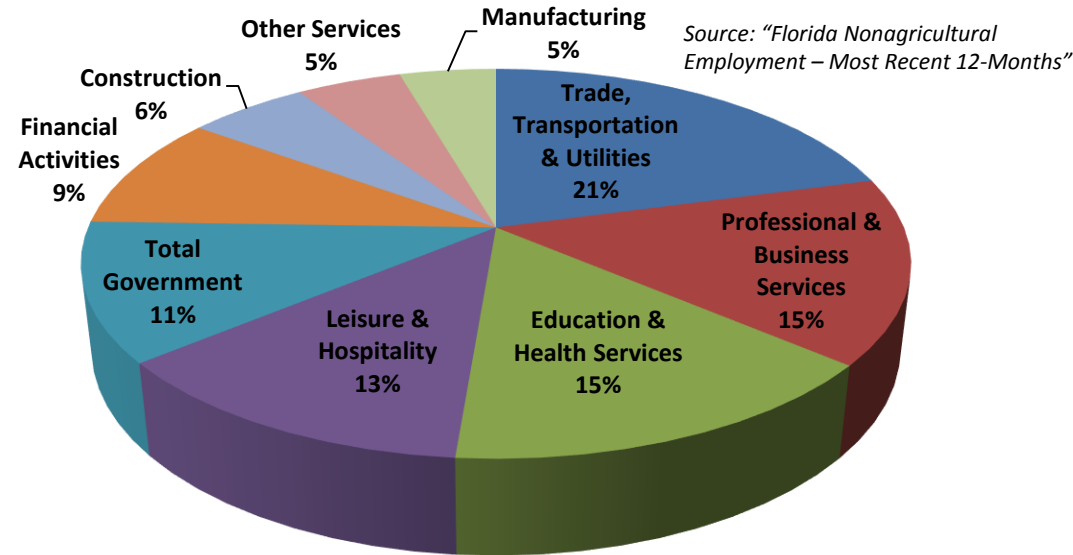


	Duval Co.	Florida
Current Level	49,554	49,426
Y/Y Change	8.2%	4.1%

Source: U.S. Census Bureau, "2015 American Community Survey 1-Year Estimates"  
 Median household income in the past 12 months (in 2015 inflation-adjusted dollars)

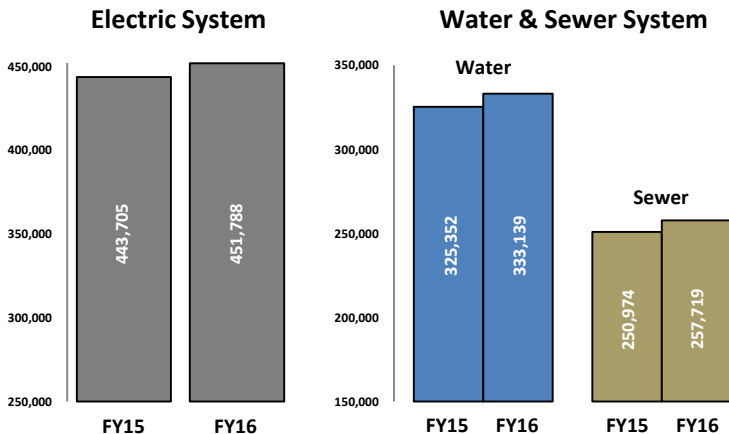
# JEA Service Territory

- Located in Northeast Florida, the Jacksonville Metropolitan Statistical Area (MSA) has an estimated population of 1.4 million according to the Census Bureau's latest estimate<sup>1</sup>
- The Jacksonville MSA saw a 7.9% increase in population from April 1, 2010 to July 1, 2015<sup>1</sup>
- Service territory also includes a small number of customers in neighboring St. Johns, Nassau and Clay Counties
- The local economy is made up of a diverse mix of industries



<sup>1</sup> U.S. Census Bureau, Population Division  
Annual Estimates of the Resident Population as of July 1, 2015

## Average Number of Customer Accounts



"Highest Customer Satisfaction with Business Electric Service in the South among Midsize Utilities."



JEA received the highest numerical score among 13 midsize utilities in the South in the J.D. Power 2016 Electric Utility Business Customer Satisfaction Study, based on 21,852 responses, and measuring the experiences and perceptions of business customers surveyed March and November 2015. Your experiences may vary. Visit [jdpower.com](http://jdpower.com)

# Contribution Agreement with the City of Jacksonville

- Approved by City Council in March 2016
- New Contribution Agreement effective FY17-FY21
- Millage reset to achieve a floor of \$114 million, equal to FY16 City Contribution, which escalates at 1% per year
- The annual contribution is the greater of the escalated floor or the millage calculation
- Included a \$15 million one-time contribution used by the City to implement a Septic Tank Phase Out Program
- JEA is providing Water Quality Credits to the City of Jacksonville to meet nitrogen reduction requirements through 2023





# General Employee Pension Plan

- The discretionary sales surtax bill was passed by the Florida House of Representatives in February 2016, the Florida Senate in March of 2016 and signed into law by Gov. Scott March 25, 2016
- The Jacksonville City Council approved 19-0 an ordinance calling for a voter referendum on May 10, 2016 to extend the Better Jacksonville half-cent sales tax to fund up to three of the City of Jacksonville's underfunded defined benefit pension plans
- On August 30, 2016, 65% of voters approved the extension of the half-cent sales tax
- In order for the revenue to be used for pension, the Plan requires that:
  - Any plan receiving the surtax to pay unfunded liability shall be closed, subject to collective bargaining approval
  - Employees in the closed pension plan(s) contribute at least 10 percent of their salary to the plan, subject to collective bargaining
  - New employees enter into a different pension plan after other plan(s) are closed
- The funds may only be used for unfunded pension liability payments
- The City Council will take separate action to close the plan(s) and implement the surtax to reduce the underfunded liability if the collective bargaining requirements are met

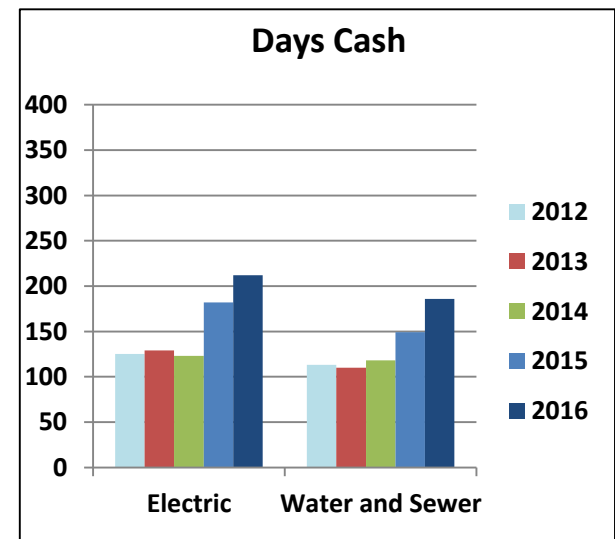
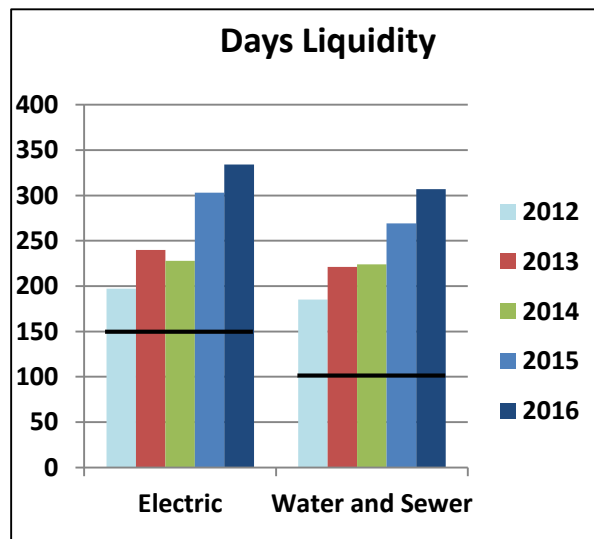
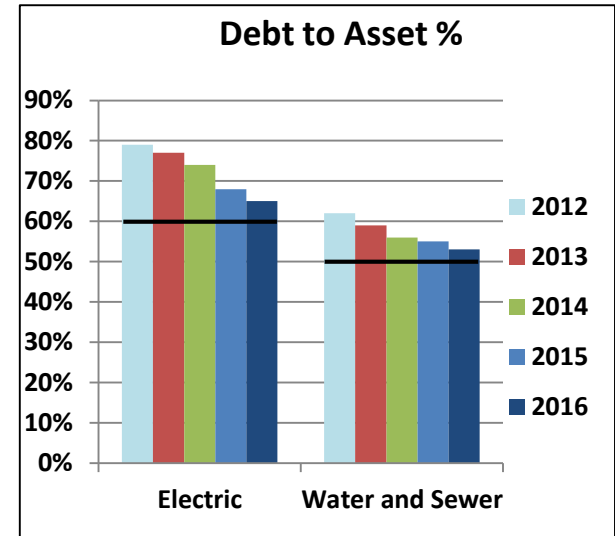
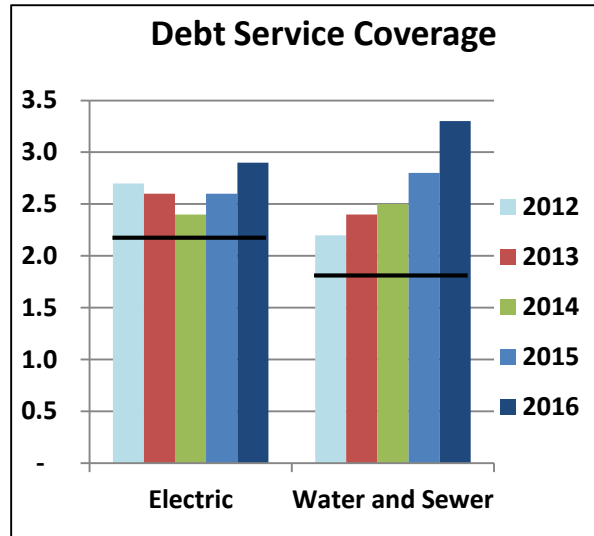


# FY16 Financial Results

# Key Financial Metrics

## FY2016 results demonstrated strong performance across all key financial metrics

- FY2016 Debt Service Coverage remains strong and provides financial flexibility to respond to industry challenges
- Debt-to-Asset % continues to improve and approach long-term targets
- Days Liquidity and Days Cash metrics continue to be strong and provide the ability to invest in infrastructure in both systems without the need for additional debt



— Long-term target

# Electric System Fiscal Year 2016 Key Financial Metrics

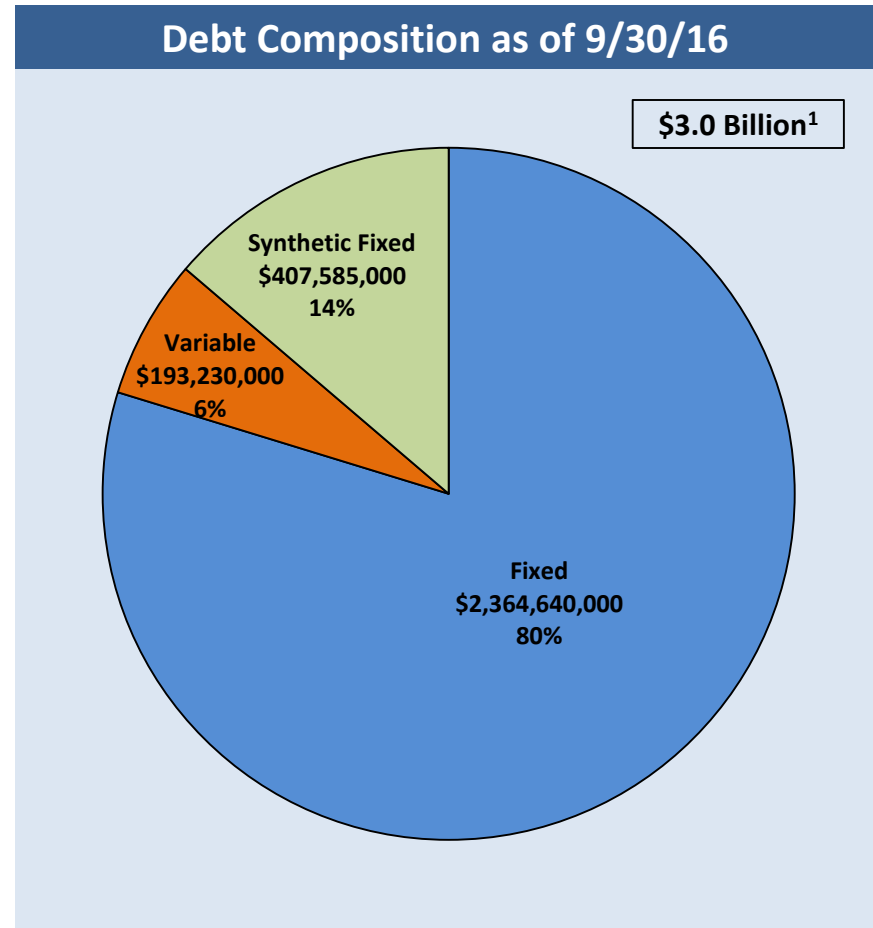
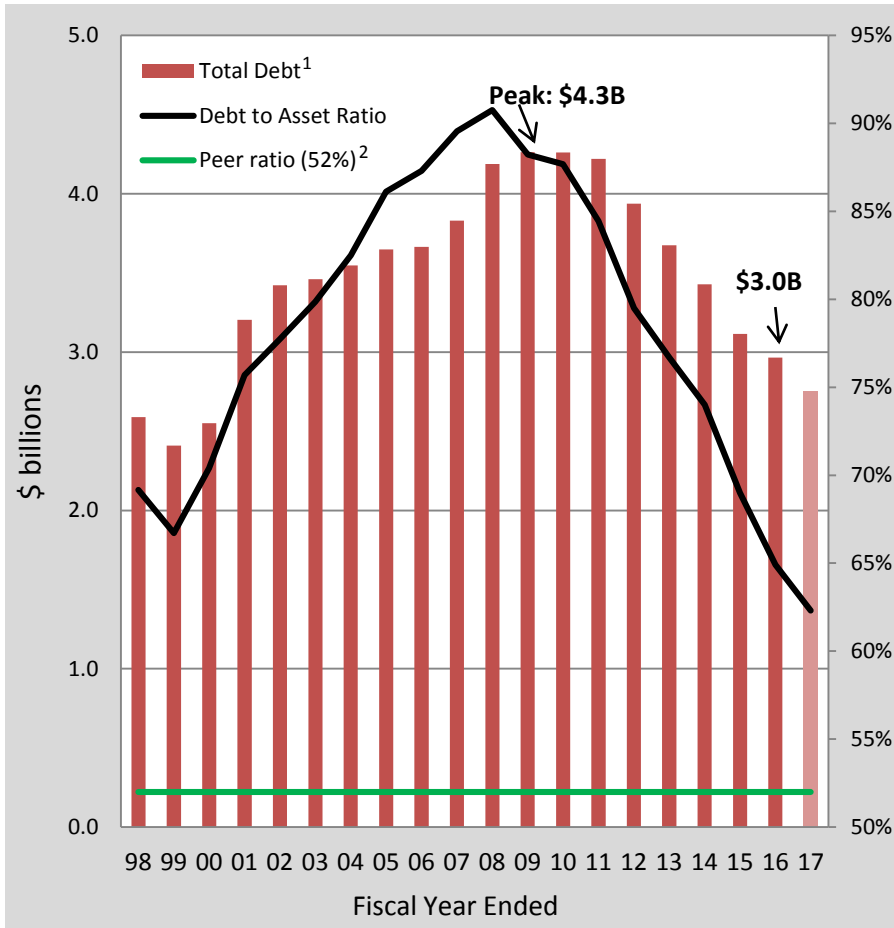
## What we said in December 2015

2.4x combined debt service coverage  
Days of cash on hand: 185 days  
Days of liquidity: 278 days  
Net funded debt reduction: \$125 million  
Debt to Asset ratio: 66.0%  
Capital Expenditure: \$160 million  
Decrease in system MWh sales of (3.5%)  
Base revenue reduction of (1.8%)

## What we did in Fiscal Year 2016

2.9x combined debt service coverage  
Days of cash on hand: 270 days  
Days of liquidity: 377 days  
Net funded debt reduction: \$125 million  
Debt to Asset ratio: 65.0%  
Capital Expenditure: \$151 million  
Increase in System MWh sales of 1.02%  
Base revenue growth of 1.1%

# Electric System Debt Management

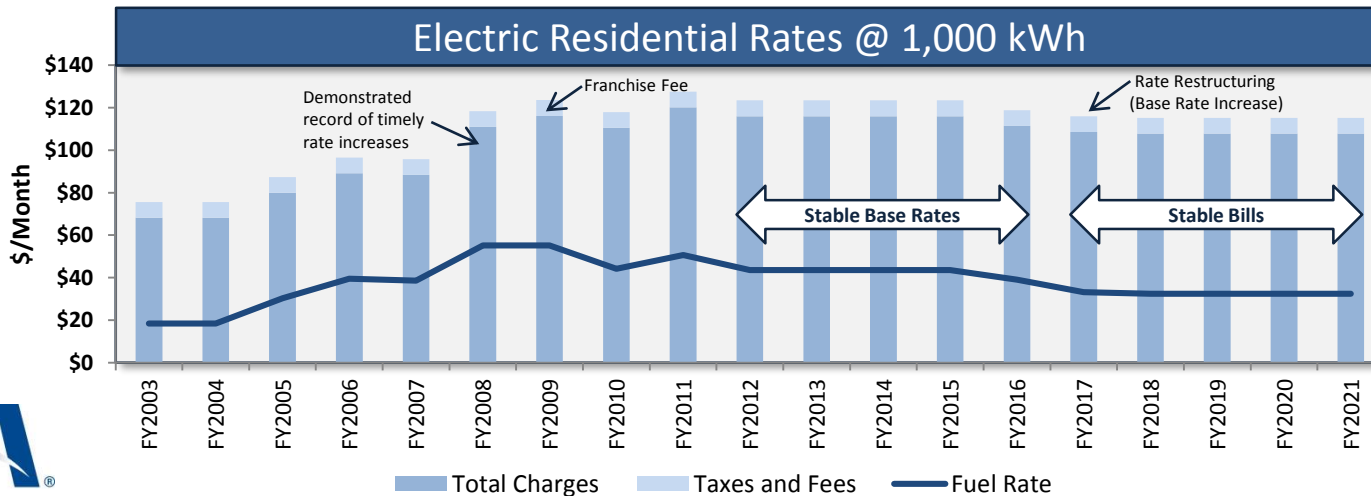
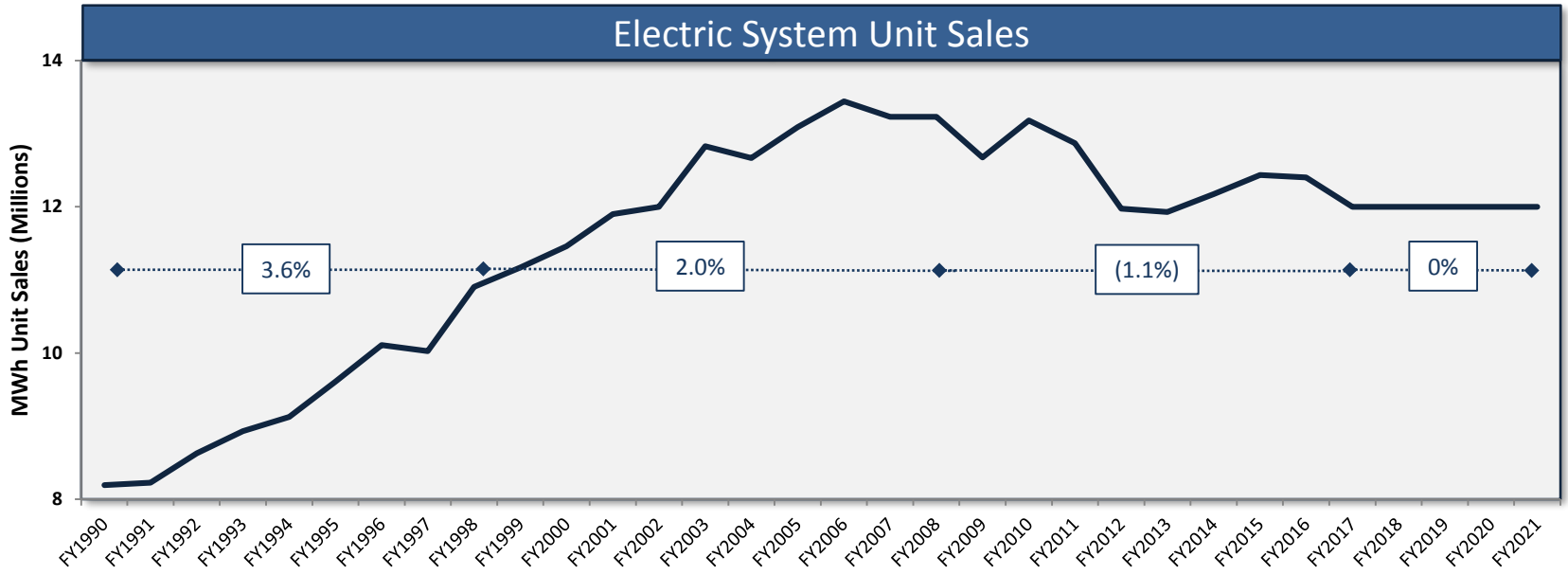


- \$1.3 billion reduction in debt since peak
- Variable rate exposure reduced from 20% in 2008 to 6% today

<sup>1</sup> Includes SJRPP and Scherer as well as FPL's portion of SJRPP

<sup>2</sup> Per "Top 30 City Owned Utilities (By Debt Outstanding)" reported in Moody's Sector In-Depth Report, Sept. 8, 2015

# Electric System Unit Sales and Rates



# Electric System Financial Projections

Electric System (\$000s)	Actual	2017	2018	2019	2020	2021
	2016					
Total Base Revenues	\$841,681	\$840,820	\$837,065	\$835,997	\$822,711	\$824,581
Base Operating Expenses <sup>1</sup>	345,587	354,797	361,126	378,848	483,752	498,534
<b>Net Revenues</b>	<b>\$496,094</b>	<b>\$486,023</b>	<b>\$475,939</b>	<b>\$457,149</b>	<b>\$338,959</b>	<b>\$326,047</b>
Senior Debt Service <sup>2</sup>	\$75,308	\$72,377	\$75,429	\$85,729	\$62,058	\$63,117
Total Debt Service <sup>2</sup>	\$171,643	\$209,868	\$205,117	\$196,117	\$135,256	\$131,813
Senior Debt Service Coverage	6.6x	6.7x	6.3x	5.3x	5.5x	5.2x
Total Debt Service Coverage	2.9x	2.3x	2.3x	2.3x	2.5x	2.5x
Days Cash <sup>3</sup>	270	215	187	172	155	145
Days Liquidity <sup>3,4</sup>	377	318	291	274	247	236

<sup>1</sup> 2019/2020 increases in operating expenses are primarily driven by MEAG PPA

<sup>2</sup> Increased Debt Service FY17-FY19 due to Advance Refunding, Net of BABS & investment income on sinking fund

<sup>3</sup> Includes Renewal and Replacement Fund balances that may be applied to the purchase, redemption, payment or provision for payment of Bonds and/or Subordinated Bonds and/or indebtedness of JEA incurred in connection with any separate bulk power supply utility or system or interest thereon

<sup>4</sup> Includes Electric System share of corporate revolving credit facility of \$300 million (net of \$3m withdrawal) with highly-rated provider JP Morgan Chase Bank (Aa3/A+/AA-), expiring in 2019 23

# Water & Sewer System Fiscal Year 2016 Key Financial Metrics

## **What we said in December 2015**

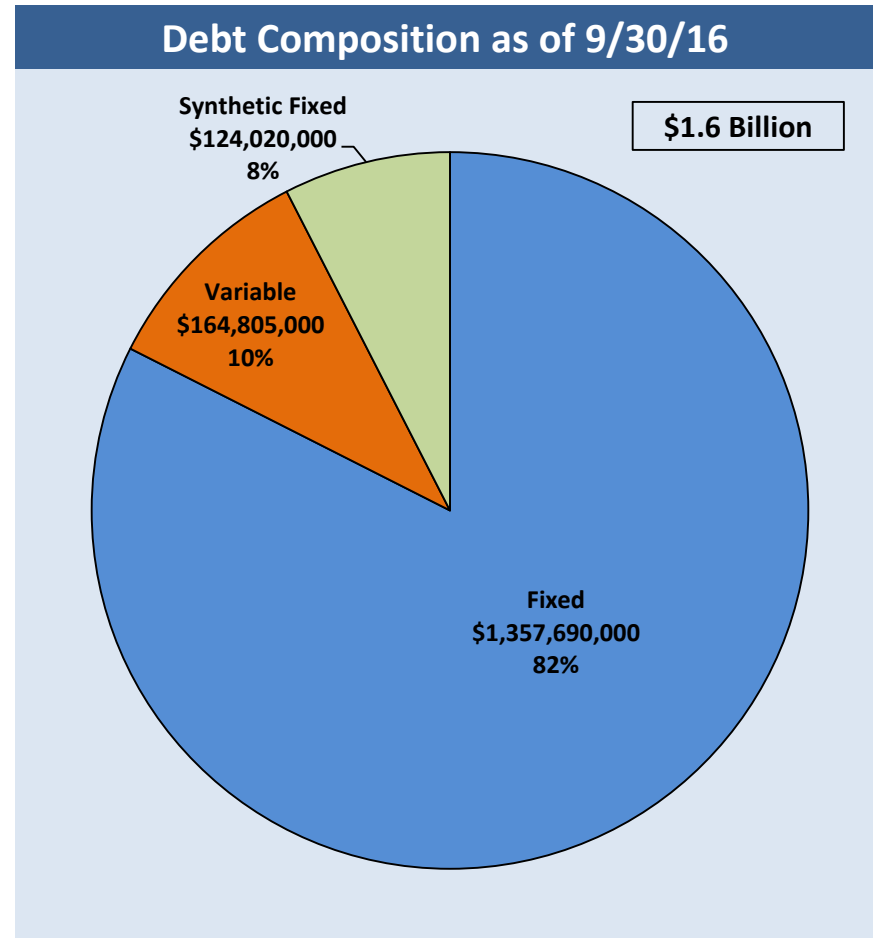
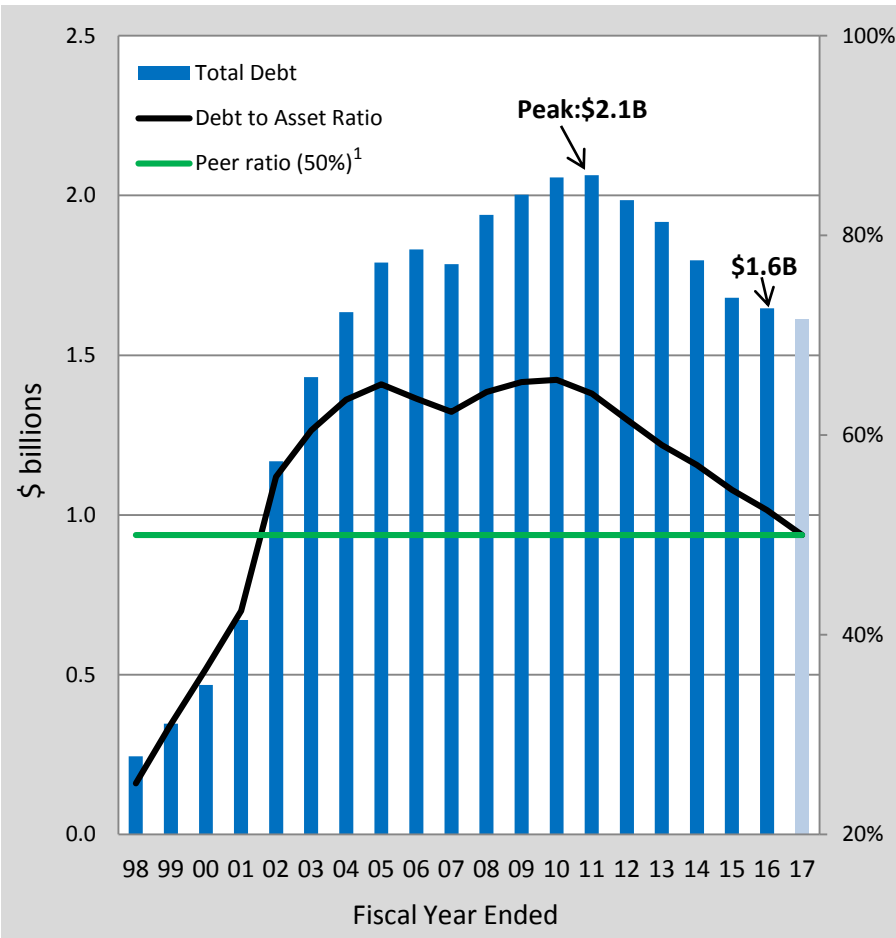
2.6x combined debt service coverage  
Days of cash on hand: 342 days  
Days of liquidity: 440 days  
Net funded debt reduction: \$34 million  
Debt to Asset ratio: 52.5%  
Capital Expenditure: \$182 million  
(4.5%) decrease in Water Regal sales  
Total system revenue decrease of (2.0%)

## **What we did in Fiscal Year 2016**

3.3x combined debt service coverage  
Days of cash on hand: 528 days  
Days of liquidity: 632 days  
Net funded debt reduction: \$31 million  
Debt to Asset ratio: 52.5%  
Capital Expenditure: \$147 million  
5.2% increase in Water Regal sales  
Total system revenue growth of 4.6%



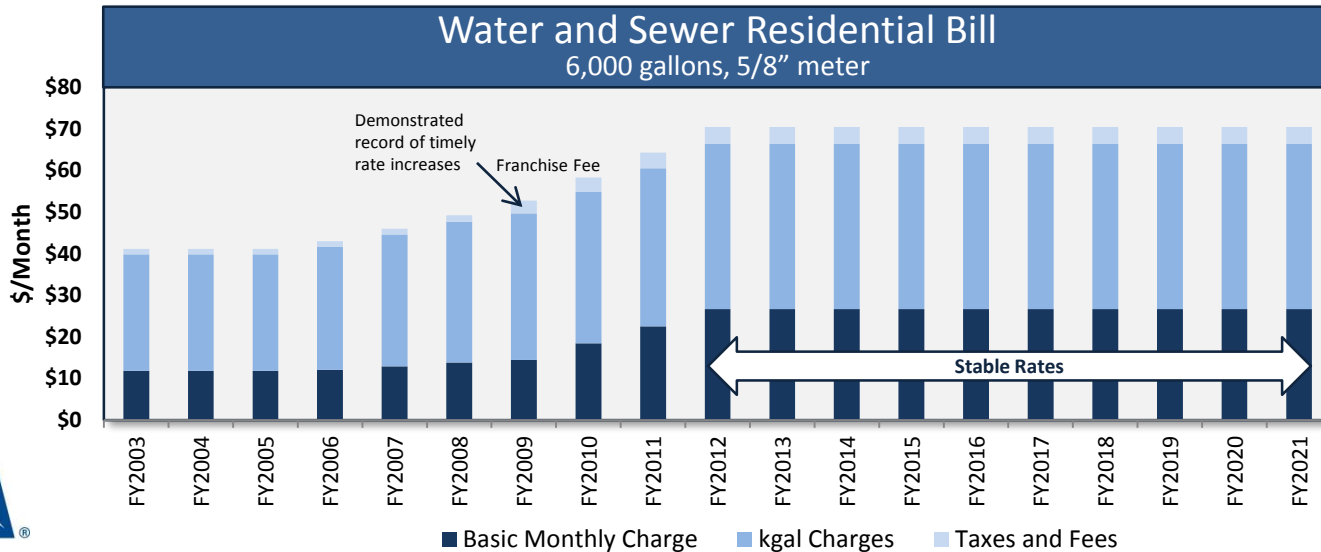
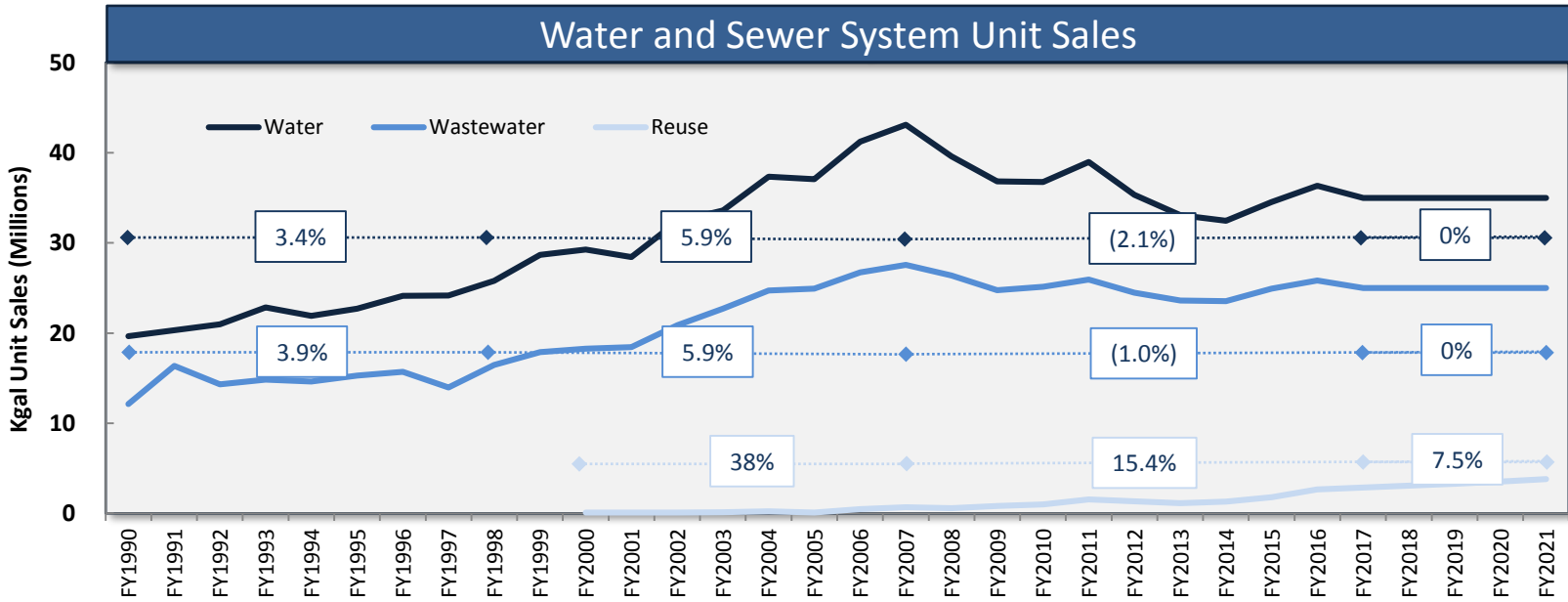
# Water & Sewer System Debt Management



- \$417 million reduction in debt since peak
- Variable rate exposure reduced from 18% in 2009 to 10% today

<sup>1</sup> Calculated from Moody's Municipal Financial Ratio Analysis database of 214 Aa rated public water-sewer utilities, Dec. 17, 2015

# Water & Sewer System Unit Sales and Rates



# Water & Sewer System Financial Projections

Water and Sewer System (\$000s)	Actual	2017	2018	2019	2020	2021
	2016					
Total Revenues	\$455,338	\$454,328	\$445,879	\$451,099	\$456,582	\$457,137
Total Expenses	142,208	155,260	158,666	160,086	161,520	162,967
<b>Net Revenues</b>	<b>\$313,130</b>	<b>\$299,068</b>	<b>\$287,213</b>	<b>\$291,013</b>	<b>\$295,062</b>	<b>\$294,170</b>
Senior Debt Service	\$82,830	\$98,088	\$97,954	\$99,166	\$99,569	\$99,226
Total Debt Service <sup>1</sup>	\$95,417	\$118,198	\$119,207	\$119,811	\$120,154	\$120,210
Senior Debt Service Coverage	3.8x	3.1x	2.9x	2.9x	3.0x	3.0x
Total Debt Service Coverage	3.3x	2.5x	2.4x	2.4x	2.5x	2.5x
Days Cash <sup>2</sup>	528	405	309	241	196	171
Days Liquidity <sup>3</sup>	632	507	412	341	287	257

<sup>1</sup> 2016 Debt Service figure includes reduction from prior year early debt retirement; 2017-2021 represents level debt service

<sup>2</sup> Includes Renewal and Replacement Fund that may be applied to the purchase, redemption, payment or provision for payment of Bonds and/or Unconsented Prior Obligations or interest thereon

<sup>3</sup> Includes W&S System share of corporate revolving credit facility of \$300 million (net of \$3m withdrawal) with highly-rated provider JP Morgan Chase Bank (Aa3/A+/AA-), expiring in 2019



.....  
**Electric Long-Term Financial Plan**  
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## Align Rates with Cost of Service

- Align rates based on cost to provide service by class through base rate adjustments
- Decrease the fuel rate to better align with current fuel expenses

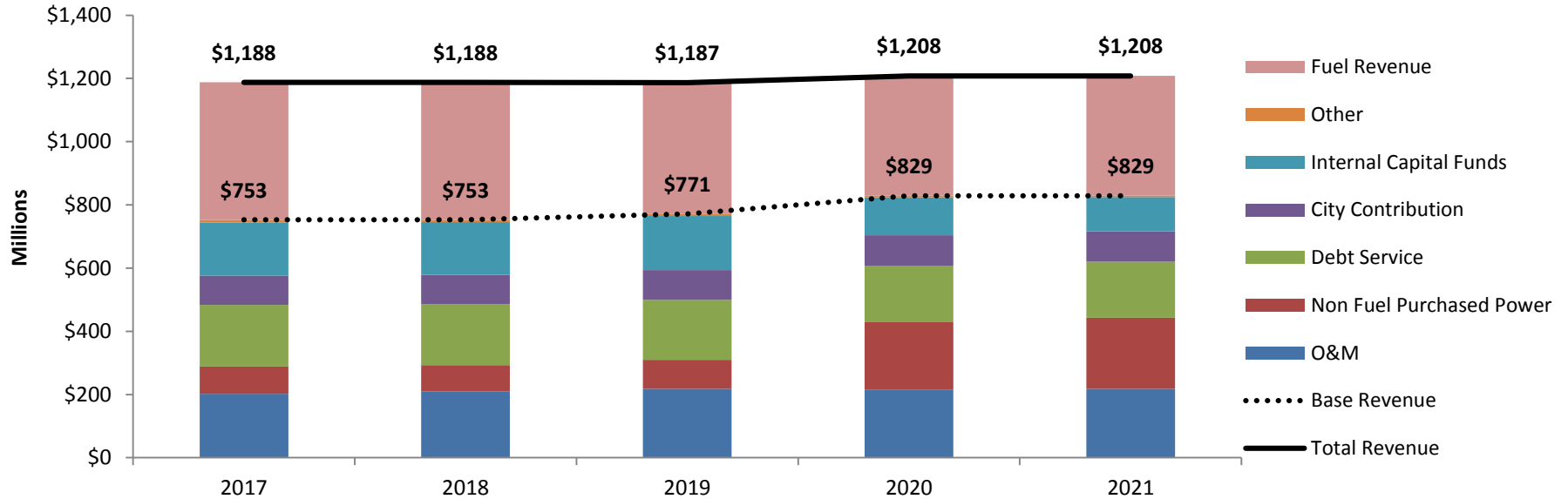
## Financially Prepare the Utility for the Future

- Support economic development in the region
- Position balance sheet for future financial strength & flexibility
- Mitigate Plant Vogtle construction risks
- Pay off \$190 million of debt early

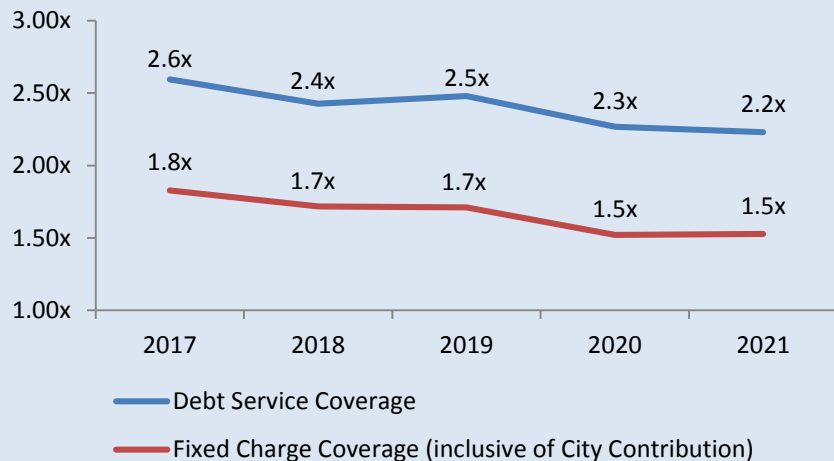
Proactive base rate increase implemented prior to need in order to accelerate debt reduction and align rate structure to future cost structure

# Revenue Requirements Before Restructuring

## Revenue Requirements – Base Case



## Debt service and fixed charge coverage

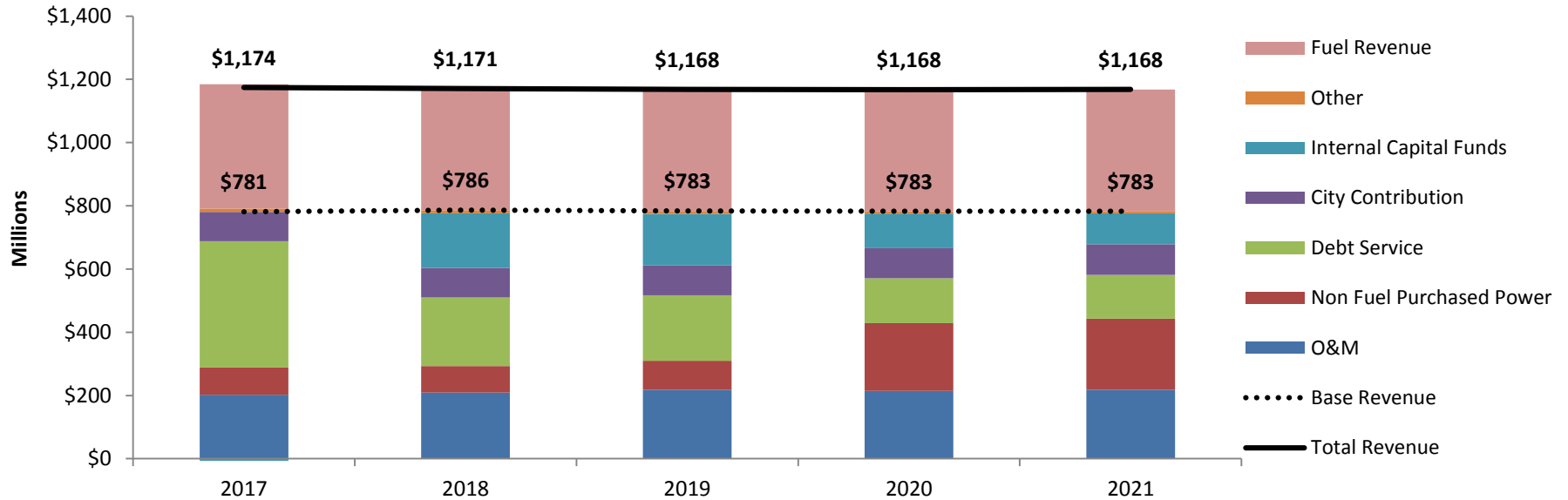


## Comments

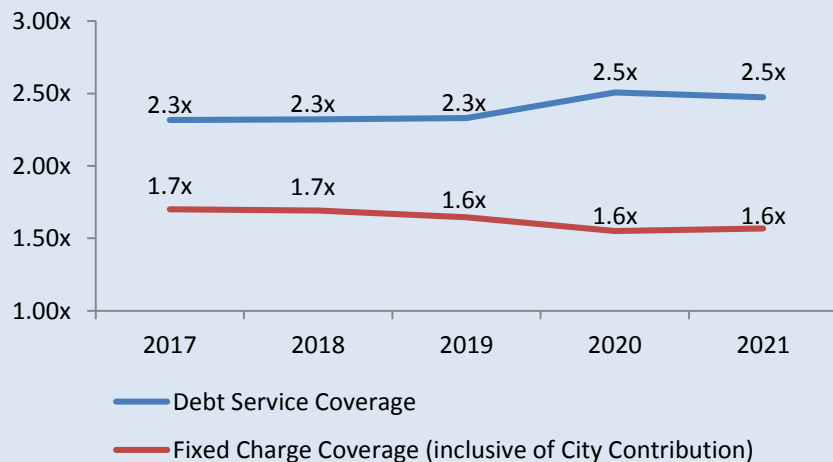
- Revenue requirements are projected to increase in 2020 due to Vogtle coming online and the SJRPP suspension
- Base rate changes are necessary in FY19 and FY20 to achieve target debt service coverage metrics
- Additional rate changes are forecasted in FY24
- Based on the current fuel forecast, fuel rate adjustments could neutralize effect of 2019 base rate changes

# Rate Restructuring Results

## Revenue Requirements – Rate Restructure



## Debt service and fixed charge coverage

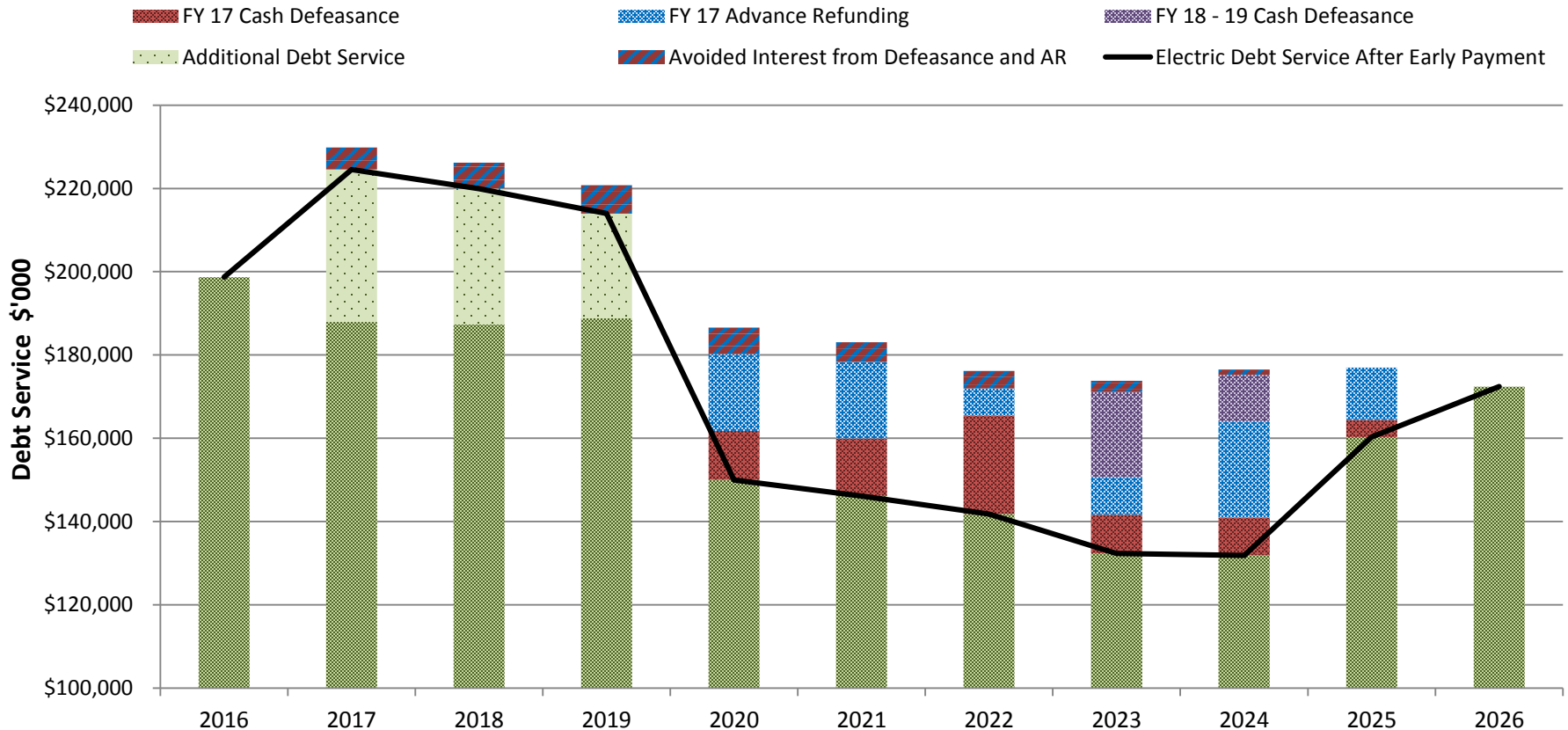


## Comments

- Proactively increase base rates by 4.4% and lower fuel rate today to better align with expenses
- Additional base rate revenue used to pay down debt early
- Rates are better aligned with base & fuel cost structure as Vogtle comes online
- Rate increase stabilizes financial metrics & ensures long-term continued financial strength

# Debt Restructuring

## Debt Payment Schedule<sup>1</sup>



## Advanced Refunding

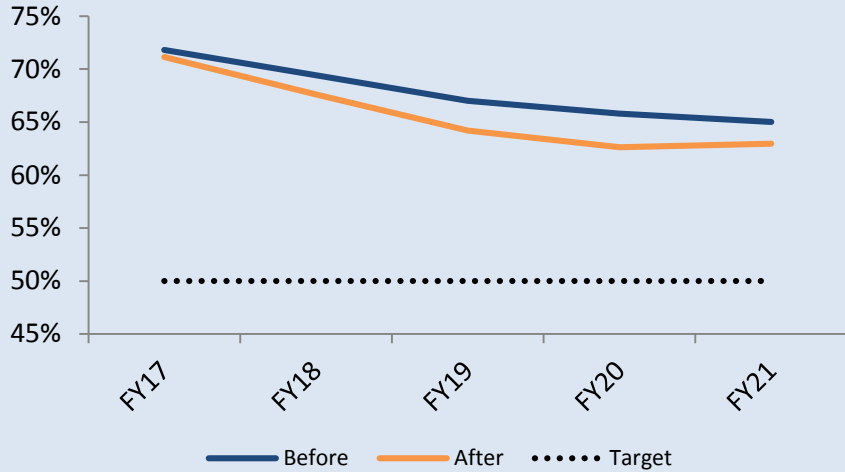
- Immediate defeasance using \$69 million of free cash flow
- Incremental base revenue will be used for additional early debt retirement of \$121 million
- Base revenue increase committed to early debt retirement through advance refunding

<sup>1</sup> Includes Bulk Power Supply System

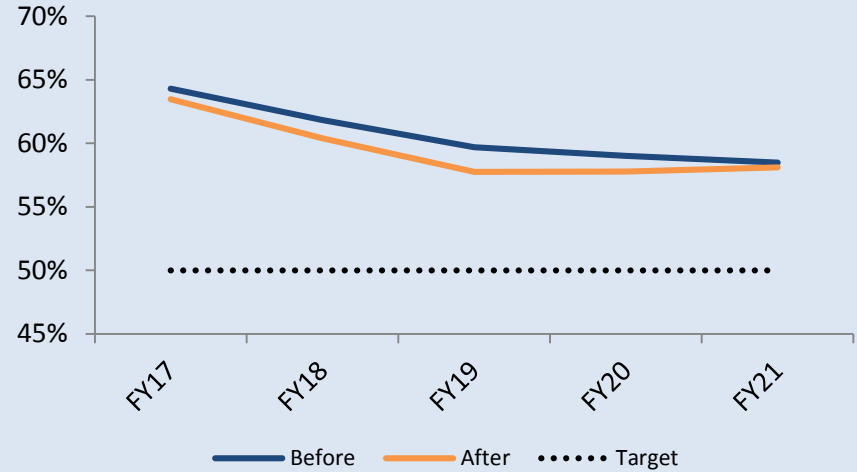


# Five-Year Projection: Before & After Rate Restructuring

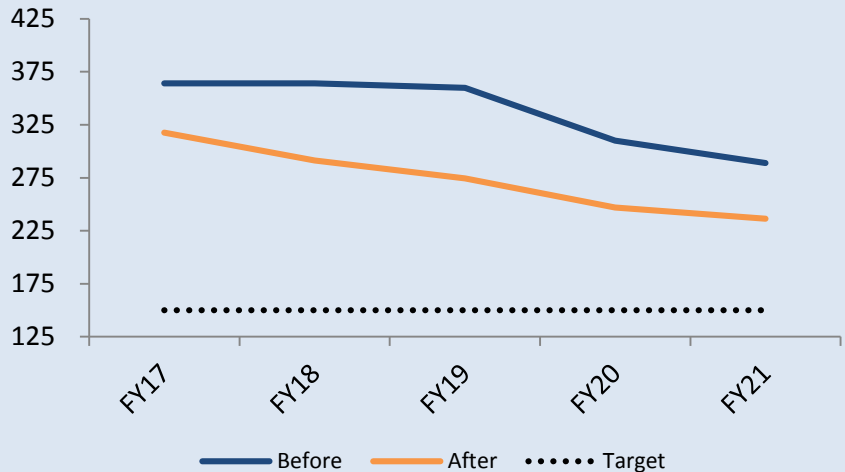
### Debt to Capitalization Ratio



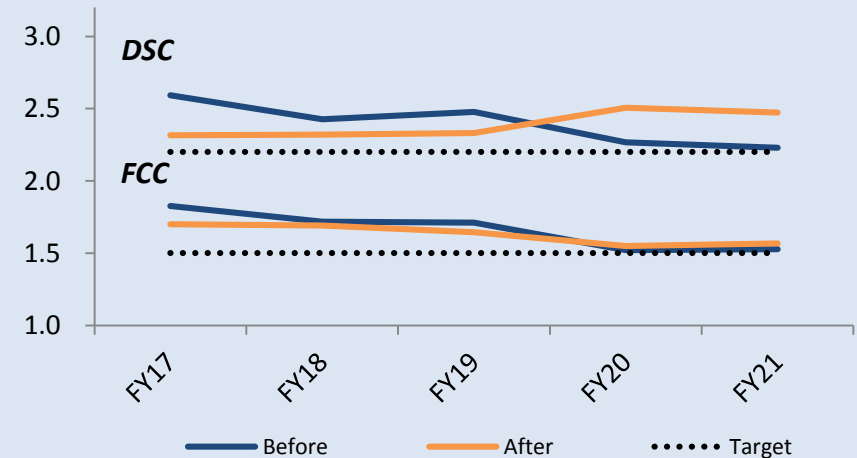
### Debt to Asset Ratio Projection



### Days of Liquidity



### Coverage Metrics





# SYSTEM OPERATIONS CONTROL CENTER



## Electric System Overview

# Electric System FY16 Highlights

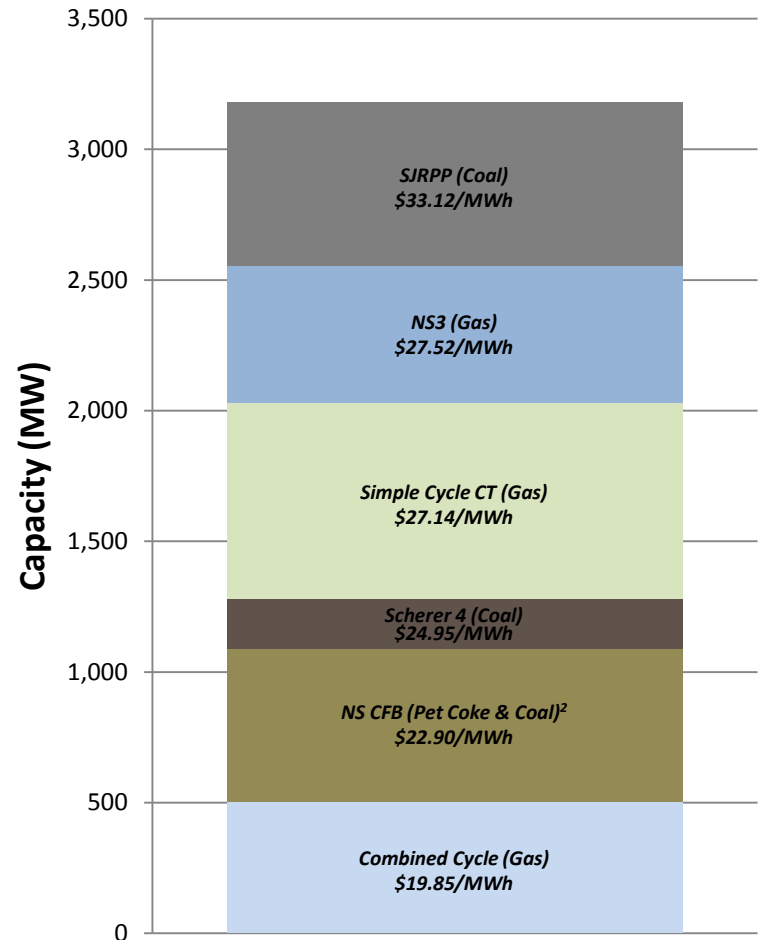
- Fuel diversity in generating fleet allowed for a \$56.6 million refund to customers; this marks the fourth year in a row that a fuel refund was given to customers
- Strong operational performance: high T&D power quality, reliability and availability/low forced outage rates from the generating fleet
- Began large-scale LED street light program with the City of Jacksonville
- Solid compliance with environmental rules and regulations
- Strong debt service coverage and liquidity
- \$150 million in debt reduction



# JEA Electric System Overview

- Net Assets In-Service: \$3.1B
- Power Production Assets
  - 6 Plants, 18 Units
  - Net Capacity: 3,414 MW (3,743 MW winter)
  - Fuel Sources: Oil, Natural Gas, Coal, Petroleum Coke
  - Small amount of renewables (solar, landfill gas)
- Transmission System
  - Voltage Levels (KV): 500, 230, 138 & 69
  - 745 Miles of Transmission
  - 74 Substations; 200 Transformers (high side  $\geq$  69kV)
- Distribution System
  - Voltage Levels (KV): 26.4, 13.2 & 4.16
  - 336 feeders (214 – 26.4kV; 95 – 13kV; 27 – 4kV)
  - 6,760 circuit miles (45% Overhead; 55% Underground)
  - 102,600 transformers, 200,900 poles

**FY16 Dispatch Stack<sup>1</sup>**



<sup>1</sup>The average dispatch prices at maximum load for each unit from 10/1/2015 through 9/30/2016

<sup>2</sup>NS CFB burned a blend of pet coke and coal during FY16

# Electric System Performance Monitoring: T&D

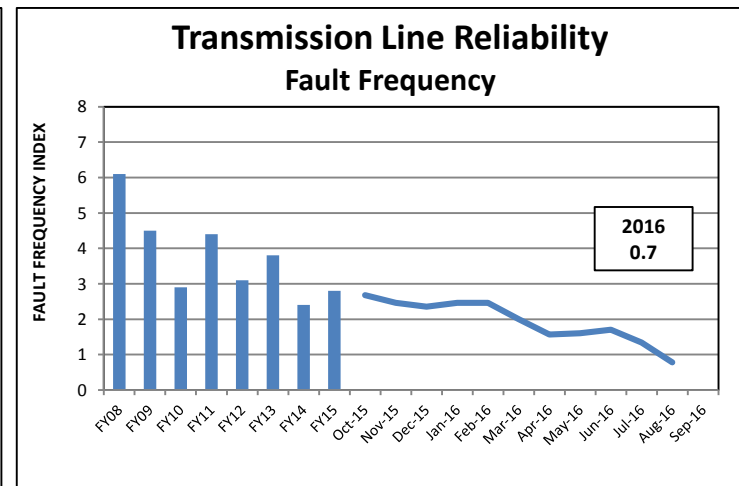
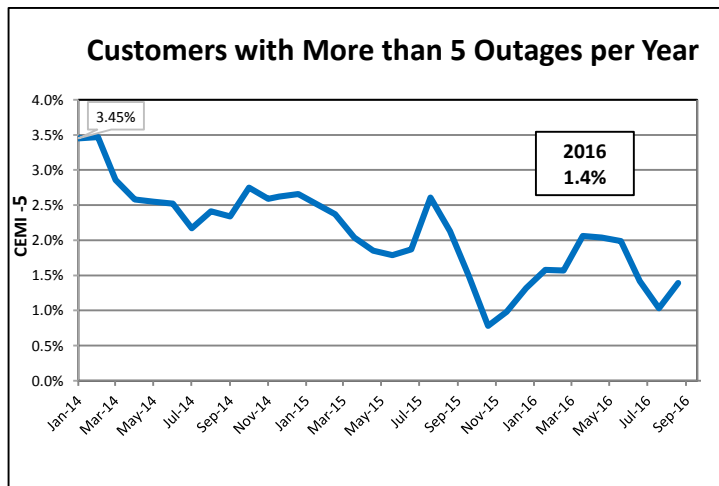
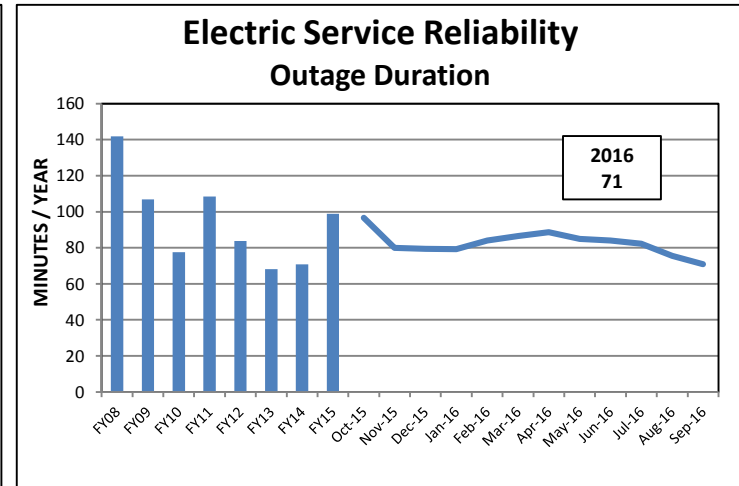
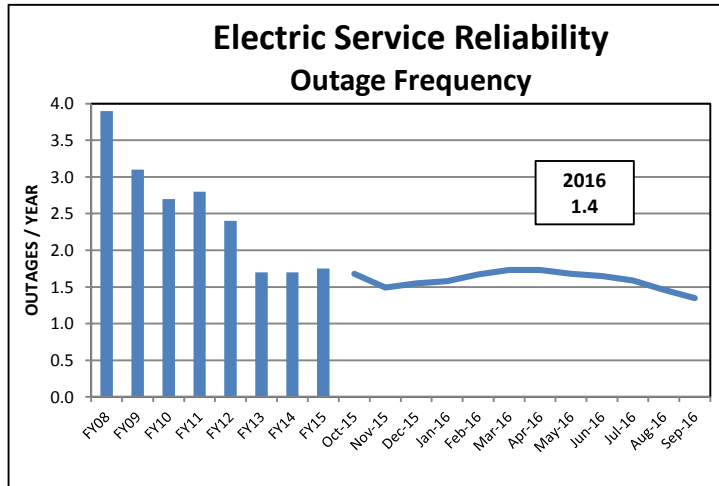
T&D Grid Performance	Metric	FY2016	FY2015	FY2014
Customer Outage Frequency	# of Outages per Year	1.4	1.7	1.7
Electric Outage Duration	# of Minutes out per Year	71	99	71
Transmission Line Faults	# of Faults per 100 miles	0.7	1.7	2.4
CEMI <sub>5</sub>	% Customers > 5 outages per yr	1.4	2.1	2.34

## Electric Service Reliability

- Outage frequency and duration have been reduced significantly over the last 8 years
- The typical JEA customer sees 1.4 outages per year and a total outage duration of 71 minutes
- CEMI<sub>5</sub>: 6,502 (1.4%) of our customers have experienced more than 5 outages in the past 12 months
- EAM Program continues to ensure targeted capital spend to ensure a healthy and reliable system

## Transmission Line Reliability

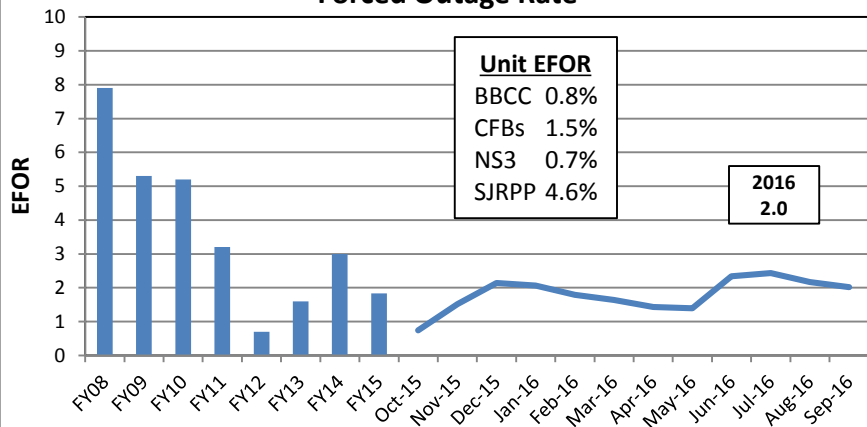
- Overall downward trend over the last eight years



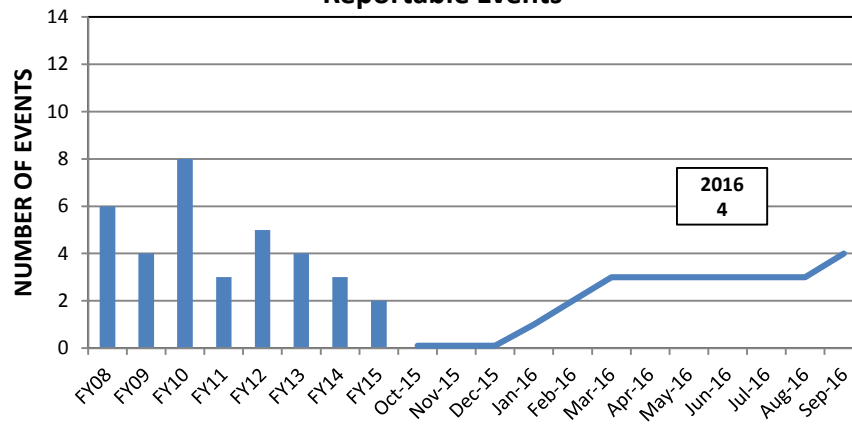
# Electric System Performance Monitoring: Generation

Generating Plant Performance	Metric	FY2016	FY2015	FY2014
Generation Fleet Reliability	Forced Outages Rate	2.0	1.8	3.0
Environmental Compliance	Permit Exceedances	4	2	3

**JEA Fleet Reliability  
Forced Outage Rate**



**Environmental Compliance  
Reportable Events**



## Generating Fleet Reliability

- The JEA Fleet Forced Outage Rate is in line with prior 5-year results, ended better than the FY2016 target (2.25 or lower), and represents BEST IN CLASS performance
- Successful outages completed last fall on all three Northside Units, with additional work completed this spring at Brandy Branch, SJRPP and Scherer
- High unit reliability contributes to lower fuel and non-fuel expenses

## Environmental Compliance

- Excellent environmental performance in prior years
- JEA Electric experienced four minor reportable events during FY2016
- JEA remains actively engaged in and preparing for all new and emerging environmental regulations

# Electric System Capital Needs and Funding Source

*JEA has streamlined its capital plan, maintaining a healthy utility system in a low-growth environment*

Electric System (\$000s)	Actual	2017	2018	2019	2020	2021	2017-2021 Average	2016-2020 Average
	2016							
Internal Funds <sup>1</sup>	\$150,635	\$122,678	\$150,112	\$151,178	\$108,781	\$98,688		
Construction Fund <sup>2</sup>	0	43,731	45,029	639	1,634	13,913		
Debt Financing	0	0	0	0	0	0		
<b>Capital Plan Spend</b>	<b>\$150,635</b>	<b>\$166,409</b>	<b>\$195,141</b>	<b>\$151,816</b>	<b>\$110,415</b>	<b>\$112,601</b>	<b>\$147,836</b>	<b>\$145,818</b>
<b>Capital Fund Balance</b>	<b>\$192,179</b>	<b>\$148,448</b>	<b>\$103,419</b>	<b>\$102,780</b>	<b>\$101,147</b>	<b>\$87,233</b>		
<b>SJRPP (\$000s)</b>								
Internal Funds <sup>1</sup>	\$6,515	\$5,940	\$5,630	\$5,415	\$5,419	\$1,205		
Construction Fund <sup>2</sup>	3,664	3,441	3,934	4,612	9,113	10,071		
Debt Financing	0	0	0	0	0	0		
<b>Capital Plan Spend</b>	<b>\$10,179</b>	<b>\$9,381</b>	<b>\$9,564</b>	<b>\$10,027</b>	<b>\$14,532</b>	<b>\$11,276</b>	<b>\$10,826</b>	<b>\$9,214</b>
<b>Scherer (\$000s)</b>								
Internal Funds <sup>1</sup>	\$8,011	\$10,185	\$19,210	\$3,764	\$8,330	\$3,441		
Construction Fund <sup>2</sup>	0	0	0	0	0	0		
Debt Financing	0	0	0	0	0	0		
<b>Capital Plan Spend</b>	<b>\$8,011</b>	<b>\$10,185</b>	<b>\$19,210</b>	<b>\$3,764</b>	<b>\$8,330</b>	<b>\$3,441</b>	<b>\$8,824</b>	<b>\$11,946</b>

<sup>1</sup> Internal funds are generated from R&R and operating capital outlay

<sup>2</sup> Draw down from the capital fund



In 2008, JEA entered into a 20-year power purchase agreement with MEAG Power for 206 MW of the units' 2,204 total MW

- Co-owner/consortium settlement agreement finalized, guaranteeing substantial completion in June 2019 and June 2020 with liquidated damages for failure to meet schedule
- More than 6,000 workers on-site full time working on plant construction
- Current cost estimates remain within estimates used for original investment decision
- No liability to JEA after the end of 20-year PPA
- Carbon-free generation source for approximately 13% of JEA's energy once online
- Debt principal payments due prior to currently scheduled commercial operation dates have been pre-funded in the Nonfuel Purchased Power Stabilization Fund



# Vogtle Risk Mitigation Strategy

## JEA Mitigations

Fully funded principal payments due prior to currently scheduled COD

Set rate structure to accommodate costs several years ahead of the cost structure changes

Rate changes stabilize fixed charge coverage

## Project Mitigations

Substantial construction progress completed including significant construction milestones

Settlement agreement among consortium and co-owners results in firm operation dates with LDs

More than 6,000 people working on-site on construction completion, most remaining key components already on-site

Future changes to cost or schedule will not have a material rate impact  
– even if Vogtle never operated at all, our financial obligation would result in only a \$2.70 fuel rate increase and no base rate changes

# Other EPA Rules That May Materially Impact JEA

Rule or Standard	Potential Impact to JEA	Estimated Costs
<p><b>Coal Combustion Residuals Rule (CCR)</b></p>	<p>Coal Combustion Residuals (CCR) rule finalized in April 2015 and effective October 2015. CCRs were not given a federal Hazardous Waste designation (Subtitle C) but are instead regulated as non-hazardous solid waste material.</p> <p><b>Primary Impacts:</b></p> <ul style="list-style-type: none"> <li>Ash pond and byproduct storage areas at Plant Scherer</li> <li>Currently operating and future expansion cells at the SJRPP Byproducts Storage Area</li> <li>NGS is exempt from the rule because it burns over 50% pet coke</li> </ul> <p>Estimated cost for SJRPP is due to lining future landfill cells and includes leachate handling and associated infrastructure costs. The \$24m project is anticipated to be constructed in 2023 with a 2024 completion date.</p> <p>Estimated cost for Scherer is due to ash pond closure along with new landfill cells and associated infrastructure cost. The initial \$13m of the \$32m total expenditure is anticipated to happen between 2017-2020, with timing of additional costs still pending.</p>	<p><b>SJRPP:</b> \$24m* <i>(Last yr est. \$25m)</i></p> <p><b>Scherer U4:</b> \$32m* <i>(Last yr est. \$15.9m)</i></p>
<p><b>Cooling Water Intake Structure Rule 316(b)</b></p>	<p>This rule further regulates cooling water intake, adding performance-based requirements for existing facilities on a case-by-case basis so that the intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact. Two-year demonstration studies are required to identify site specific BTA. Submittals to the agency are expected 2022-2023. The majority of the estimated cost will not happen until the 2024-2027 timeframe.</p>	<p><b>NGS:</b> \$5m to \$60m <i>(Last yr est. \$5m to \$30m)</i></p>
<p><b>Effluent Limitation Guidelines (ELG) for Steam Electric Power Generating Point Source Category</b></p>	<p>Lower effluent limits may require physical, chemical and/or biological treatment to specific waste streams at the production sources within the power plants. Impacts of the rule include treatment for leachate at NGS and movement to dry bottom ash handling and FGD wastewater management (treatment or zero discharge) at SJRPP and Scherer.</p> <p>The final rule was published in November 2015. The compliance period associated with the estimated costs provided is 2017-2022.</p>	<p><b>NGS:</b> \$0m to \$2m <i>(Last yr est. \$9m to \$10m)</i></p> <p><b>SJRPP:</b> \$21m to \$69m* <i>(Last yr est. \$40m to \$60m)</i></p> <p><b>Scherer U4:</b> \$4m* <i>(Last yr est. \$4.4m)</i></p>

**If SJRPP is re-powered to gas, ELG and CCR requirements are fully mitigated**

\*Estimated costs represents JEA's portion

# Electric System Summary Page

- ✓ Top quartile operating performance
- ✓ Funding capital with existing revenues
- ✓ Base rate increase
- ✓ Environmental risks substantially reduced
- ✓ Vogtle risk mitigated
- ✓ Contribution agreement executed
- ✓ Pension reform underway

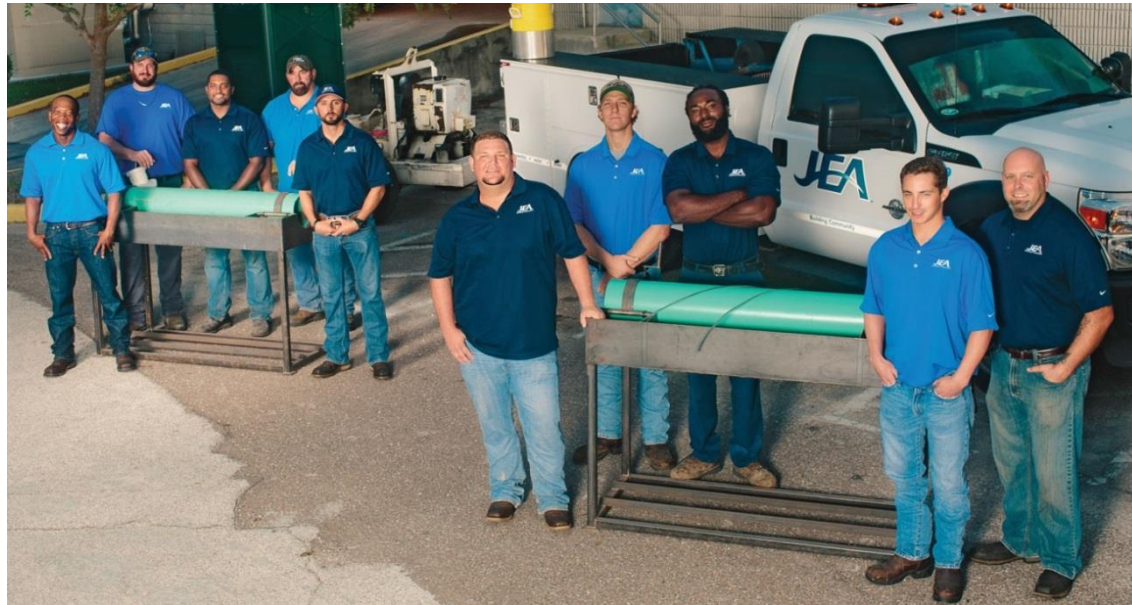




## Water & Sewer System Overview

# Water & Sewer System FY16 Highlights

- Aquifer withdrawals substantially less than overall CUP allocation
- FY16 total nitrogen discharge was 23% under the permitted limit
- Construction of the Blacks Ford water reclamation plant expansion to 6.0 MGD began in FY16 and is on schedule to be completed in FY18 to meet the growing demand in the southern service territory
- Strong debt service coverage and liquidity
- Continued risk reduction in debt portfolio: \$33 million in debt reduction



# Water & Sewer System Infrastructure

## Water System

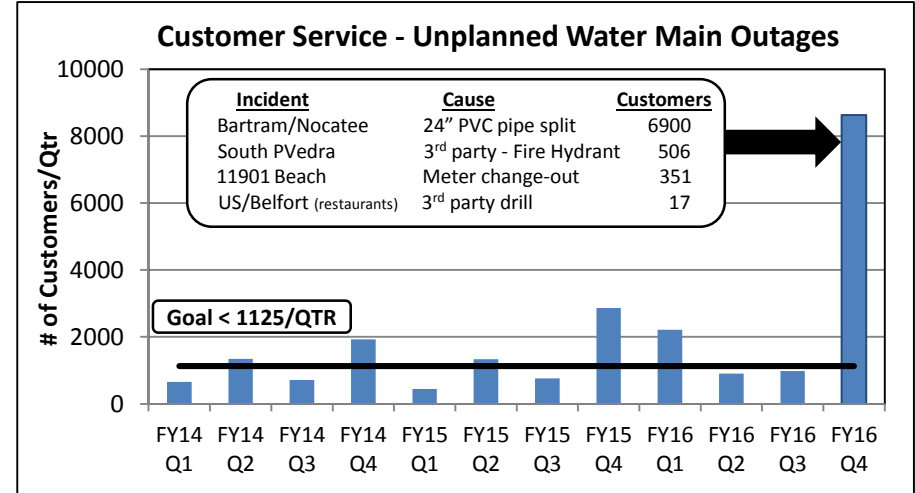
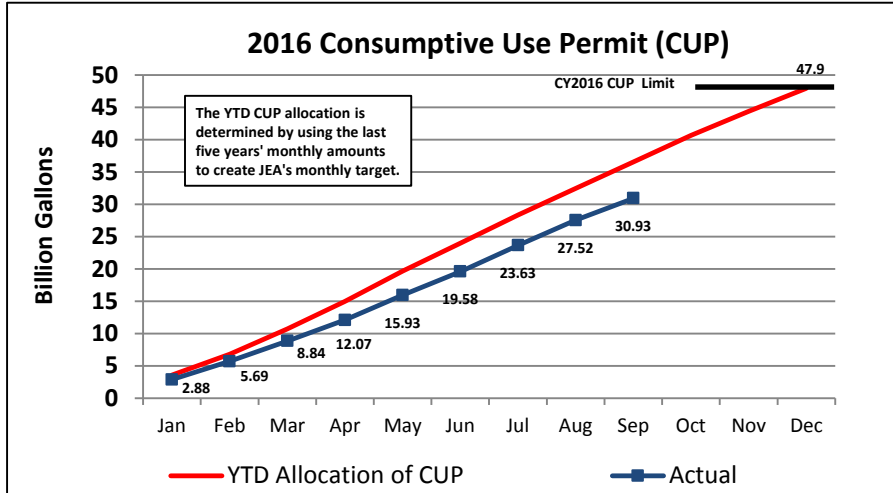
- 19 major and 18 small water treatment plants and two re-pump facilities
- 134 active water supply wells, 4,449 miles of water distribution mains and total finished water storage capacity of over 70 million gallons
- Two major and four small distribution grids



## Sewer System

- Approximately 3,898 miles of gravity sewers and force mains
- 1,375 pumping stations, 790 low pressure sewer units, and 11 treatment plants currently ranging in rated average daily treatment capacity from approximately 0.2 to 52.5 MGD

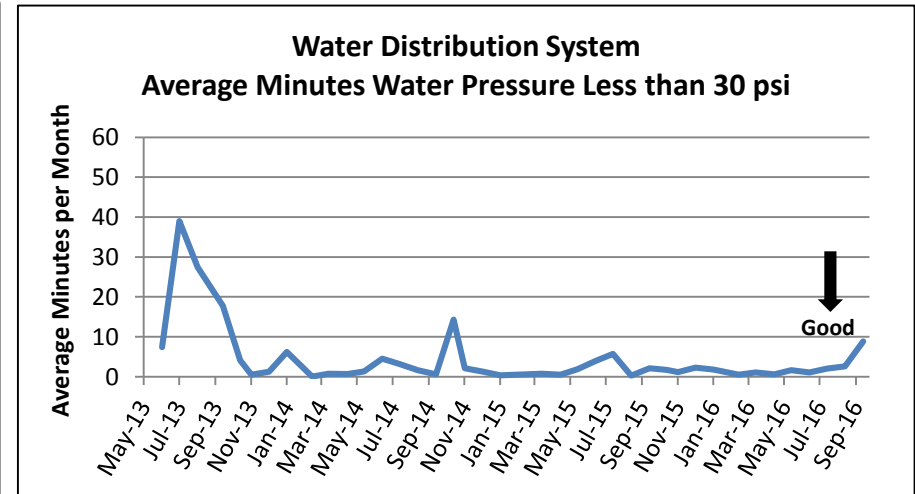
# Water & Sewer System Performance Monitoring



**Consumptive Use Permit (CUP)**  
 Condition 12: YTD average daily flow is 14% below CY limit of 131 MGD

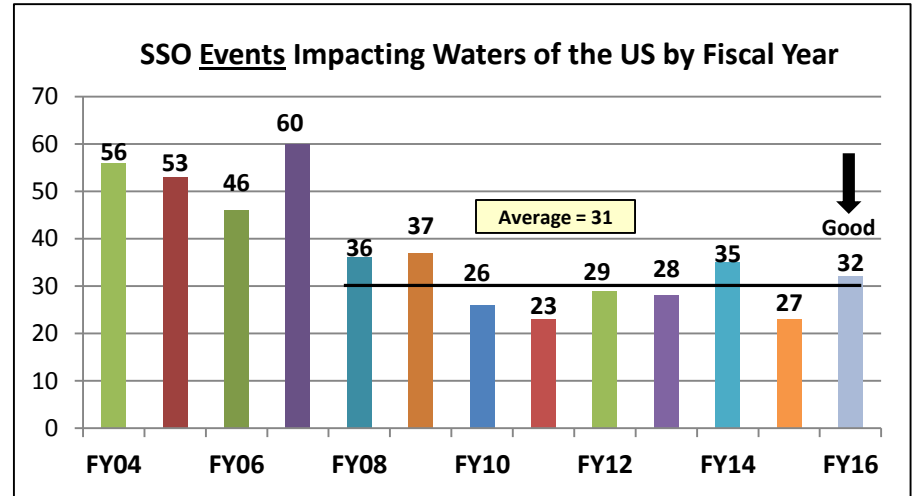
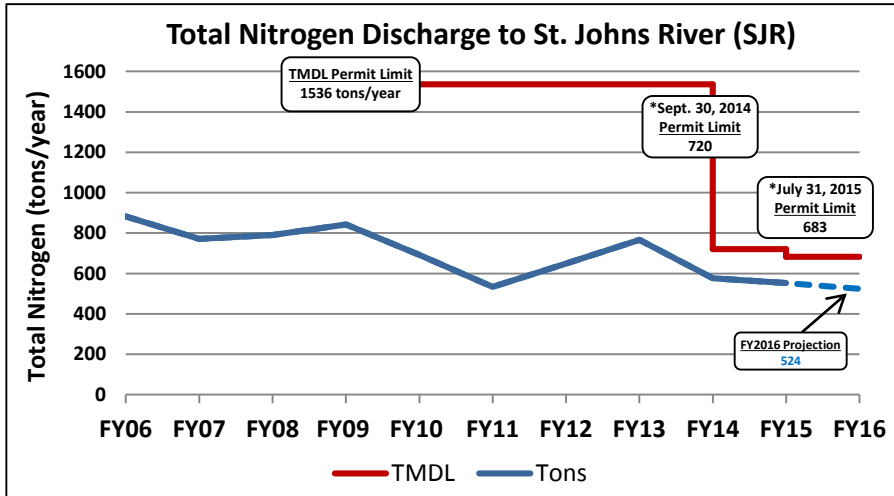
**Unplanned Water Outages**  
 # of Customers Affected by Unplanned Outages increased due to a single event and 3<sup>rd</sup> party damages

**Water Pressure (minutes per month < 30 psi)**  
 Measured by 110 pressure monitoring stations in the distribution system. Pressure must be greater than 20 psi, and is expected to be greater than 50 psi.



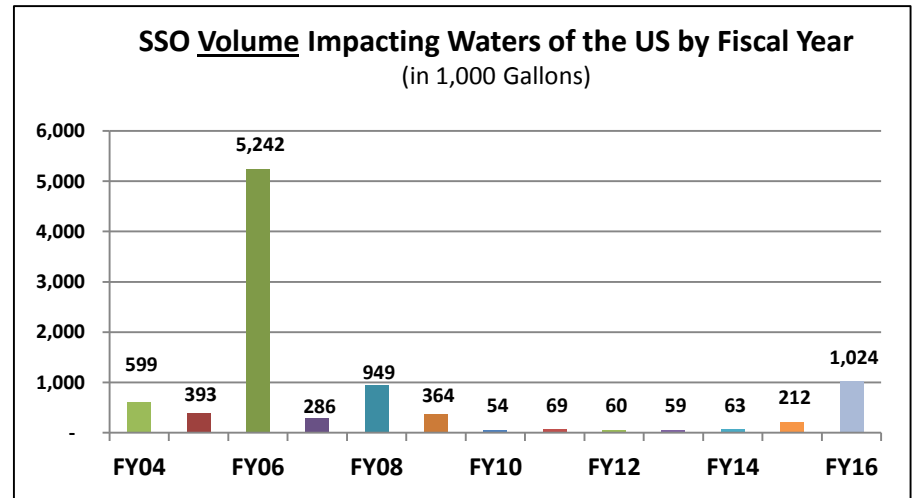
# Water & Sewer System Performance Monitoring

Compliance	Metric	FY2016	FY2015	FY2014
Sewer	Nitrogen (N) Tons – FY basis	524	553 (TMDL of 683*)	577 (TMDL of 720*)



**Nitrogen Discharge to St. Johns River**  
 Florida Department of Environmental Protection (FDEP) has reduced the Total Maximum Daily Load (TMDL) to 683 tons with Water Quality Trading Credits allocated to the COJ

**Sanitary Sewer Overflows (SSOs)**  
 FY16 SSO achievement of 32 events is in line with the FY08 to FY16 average. A single event in October 2015 elevated the SSO volume for FY16.





# Water & Sewer System Capital Needs and Funding Source

The Water and Sewer capital plan increases in 2017 & 2018 are driven by growth in both systems, projects necessary for regulatory compliance, and programs to rehabilitate infrastructure critical to system operation and reliability

## Funding growth with NO NEW DEBT!

Water and Sewer System (\$000s)	Actual	2017	2018	2019	2020	2021	2017-2021 Average
	2016						
Internal Funds <sup>1</sup>	\$147,363	\$154,149 <sup>3</sup>	\$169,880 <sup>3</sup>	\$149,283	\$150,539	\$152,124	
Construction Fund <sup>2</sup>	0	\$50,851	\$30,721	\$31,017	\$18,761	\$15,276	
Debt Financing	0	0	0	0	0	0	
<b>Capital Plan Spend</b>	<b>\$147,363</b>	<b>\$205,000</b>	<b>\$200,600</b>	<b>\$180,300</b>	<b>\$169,300</b>	<b>\$167,400</b>	<b>\$184,500</b>
<b>Capital Fund Balance</b>	<b>\$182,242</b>	<b>\$131,391</b>	<b>\$100,670</b>	<b>\$69,653</b>	<b>\$50,892</b>	<b>\$35,616</b>	

- Current rates (flat sales and 1% customer growth) are adequate to fund recurring and reinvestment type projects over planning horizon:
  - Replace critical water distribution and sewer collection mains
  - Rehabilitation of major pump stations
  - Projects required for environmental compliance
- Existing capital fund balance and recurring capacity fees contribute towards projected growth - capacity expansion projects
  - Over \$300M of capital spend plan is growth – capacity expansion related
  - Entire projected capital plan continues to be funded without the issuance of new debt

<sup>1</sup> Internal funds are generated from R&R and operating capital outlay

<sup>2</sup> Draw down from the capital fund

<sup>3</sup> \$6.2m and \$21.5m transfer from debt management strategy stabilization fund and revenue/operations fund to internal capital fund in FY 17 & FY 18, respectively.

# Strategically Protecting & Growing Our Water Resources

## South Grid Allocations

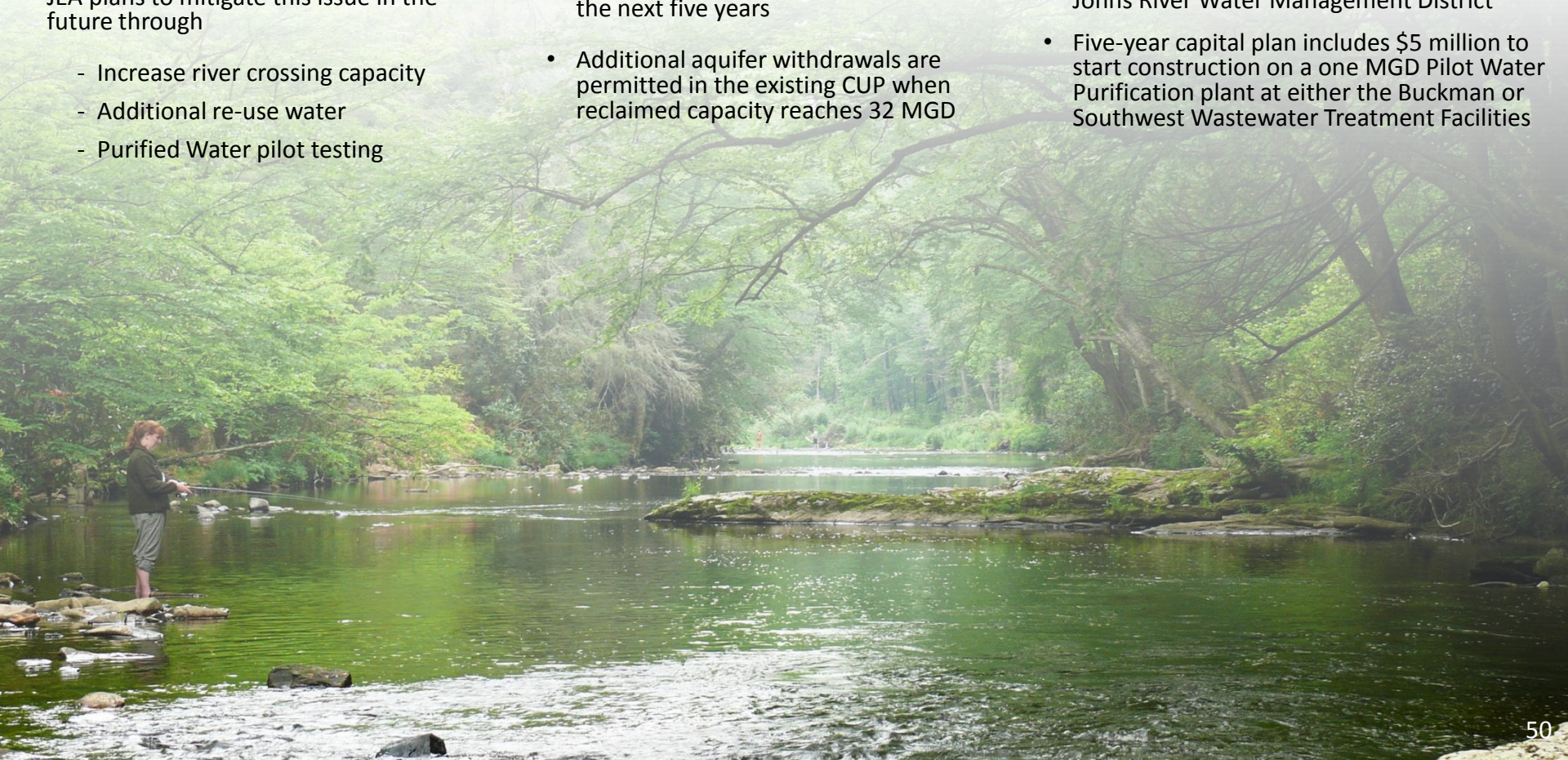
- While JEA expects to operate well within its aggregate cap limit, within our service territory there are sub-limits on withdrawals
- JEA plans to mitigate this issue in the future through
  - Increase river crossing capacity
  - Additional re-use water
  - Purified Water pilot testing

## Reclaimed Water

- Continued investment will further expand JEA's reclaimed delivery to over 20 MGD by FY2020.
- JEA's capital plan includes \$65 million of investment in reclaimed water over the next five years
- Additional aquifer withdrawals are permitted in the existing CUP when reclaimed capacity reaches 32 MGD

## Purified Water

- In FY2017, JEA is embarking on a strategic two-year technical evaluation to determine the feasibility of alternative water supply
- Aquifer Recharge evaluation will be conducted in collaboration with the St. Johns River Water Management District
- Five-year capital plan includes \$5 million to start construction on a one MGD Pilot Water Purification plant at either the Buckman or Southwest Wastewater Treatment Facilities



# JEA Framework to Resiliency

- JEA operates a best-in-class system under normal operating/weather conditions, and has invested more than \$1.5 billion in the Sanitary Sewer System since the transfer from the City in 1997
- Hurricane Matthew indicated that there may be opportunities to further fortify the system to perform at the higher levels under extreme weather conditions
- Over the next year, JEA staff will analyze, plan, and implement short-term fortification improvement activities which are included in the five-year capital plan
- JEA will also produce a longer-term System Resiliency Assessment which will consider opportunities to enhance design and construction standards when rebuilding the system under scheduled R&R

# Water & Sewer System Summary Page

- ✓ Top quartile operational performance
- ✓ Capital plan funded without debt
- ✓ Rates stable for five years
- ✓ Contribution agreement executed
- ✓ Pension reform underway





# Enterprise Risk Management

# Best Practices Enterprise Risk Management in its Twelfth Year

JEA's Enterprise Risk Management (ERM) program identifies, assesses, measures, monitors and actively manages risk, including mitigation strategies and actions

- Recognizes that corporate risks are interdependent and effective risk management requires a broad corporate view
- Breaks down silos to provide methodical and disciplined framework for risk management
- Standardizes evaluation and measurement of risks – both quantitative and qualitative
- Provides standardized measurement and reporting of corporate-wide risks
- Governance of Enterprise Compliance and Risk Committee consists of entire Senior Leadership Team, Director of Audit Services, and ERM Manager



# All Critical Risks are Identified and Actively Managed

## ERM - Tier 1 Risk Trends as of Current Quarter (Q1 FY17)

Risk <small>E= Electric, W= Water/Wastewater. F= Financial, H= Human Resources, T= Technology, C= Corporate -wide. Risks are in order by risk score within Business Function</small>	FY13			FY14				FY15				FY16				FY17	Long Term Risk Exposure Trend (> 5 Years)
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
<b>Electric Risks</b>																	
E1 - Carbon Emission Mitigation	20	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	↔ Stable
E2 - Effluent Limit Guidelines for Steam Units	12	12	16	16	16	16	16	16	16	16	16	16	16	16	20	20	↔ Stable
E4 - Adverse Electric Commodity Supply and Pricing	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	↔ Stable
E3 - Coal Combustion Residual Rule (CCR)	15	15	15	15	15	15	15	15	15	10	10	10	10	10	15	15	↔ Stable
E5 - Cooling Water Intake Structures 316(b)	12	10	10	10	10	10	10	10	10	10	10	10	10	10	20	20	↔ Stable
E6 - Long-term Planning/Load Forecast - Electric	6	6	6	6	6	10	10	10	10	10	10	10	10	10	10	10	↑ Increasing
E7 - Critical Infrastructure Protection (CIP) Compliance	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	↑ Increasing
<b>Water/Wastewater Risks</b>																	
W1 - Water Supply Management/Long Term Planning	12	12	12	12	12	12	15	15	15	15	15	15	15	15	15	15	↑ Increasing
<b>Corporate Wide Risks</b>																	
H1 - Pensions	16	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	↔ Stable
F1 - Revenues and Expenses Management	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	↑ Increasing
C1 - Customer Relationship Management	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	↔ Stable
C2 - Physical Security (Facilities Infrastructure Security and Regulatory Compliance)	9	9	9	9	12	12	12	12	12	12	12	12	12	12	12	12	↑ Increasing
C3 - New Technology						12	12	12	12	12	12	12	12	12	12	12	↑ Increasing
C16 - Weather & Climate Change Impact														15	15	15	↑ Increasing

### Key change since December 2015 update:

1. The Weather and Climate Change Impact Risk was added as a new Tier 1 risk based on the unpredictability of weather patterns and/or short-term or seasonal extreme weather, which can negatively impact long-term planning, financial and reliability performance.
2. The External Influence on Policy Risk was moved from Tier 1 to Tier 2 Risk. External parties may continue to increase demands on JEA's resources, which may significantly impact JEA's finances. However, interactions with external stakeholders are deemed to be effectively managed, limiting the negative impact to JEA.



.....  
**Enterprise Asset Management**  
.....



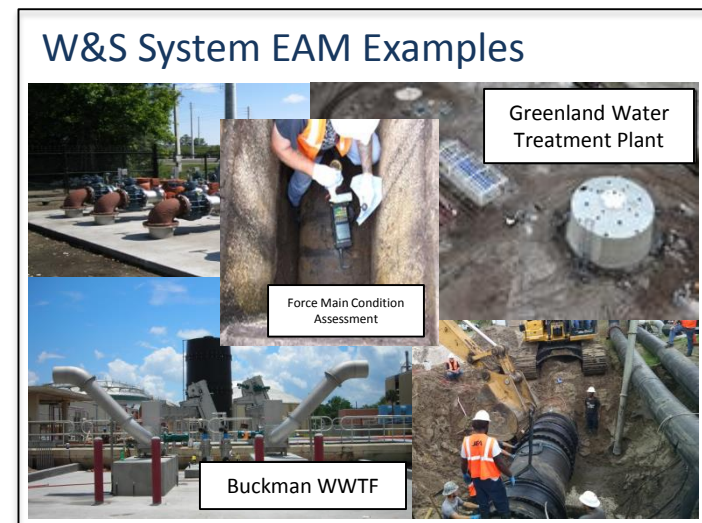
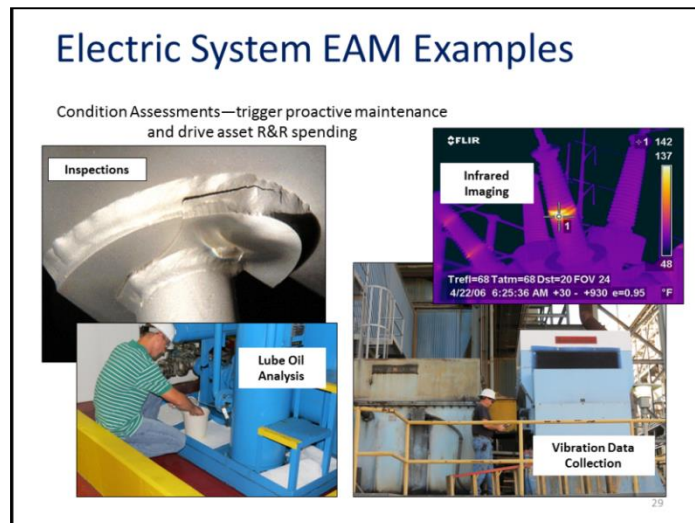
# JEA's Enterprise Asset Management Program

## Enterprise Asset Management (EAM) is

- A systematic process that maximizes the value of physical assets
- A logical approach for maintaining, upgrading, and replacing assets based on life-cycle costs
- The rigorous link of databases to the financial aspects of ownership for long-term and short-term planning
- An operations and reliability risk management system

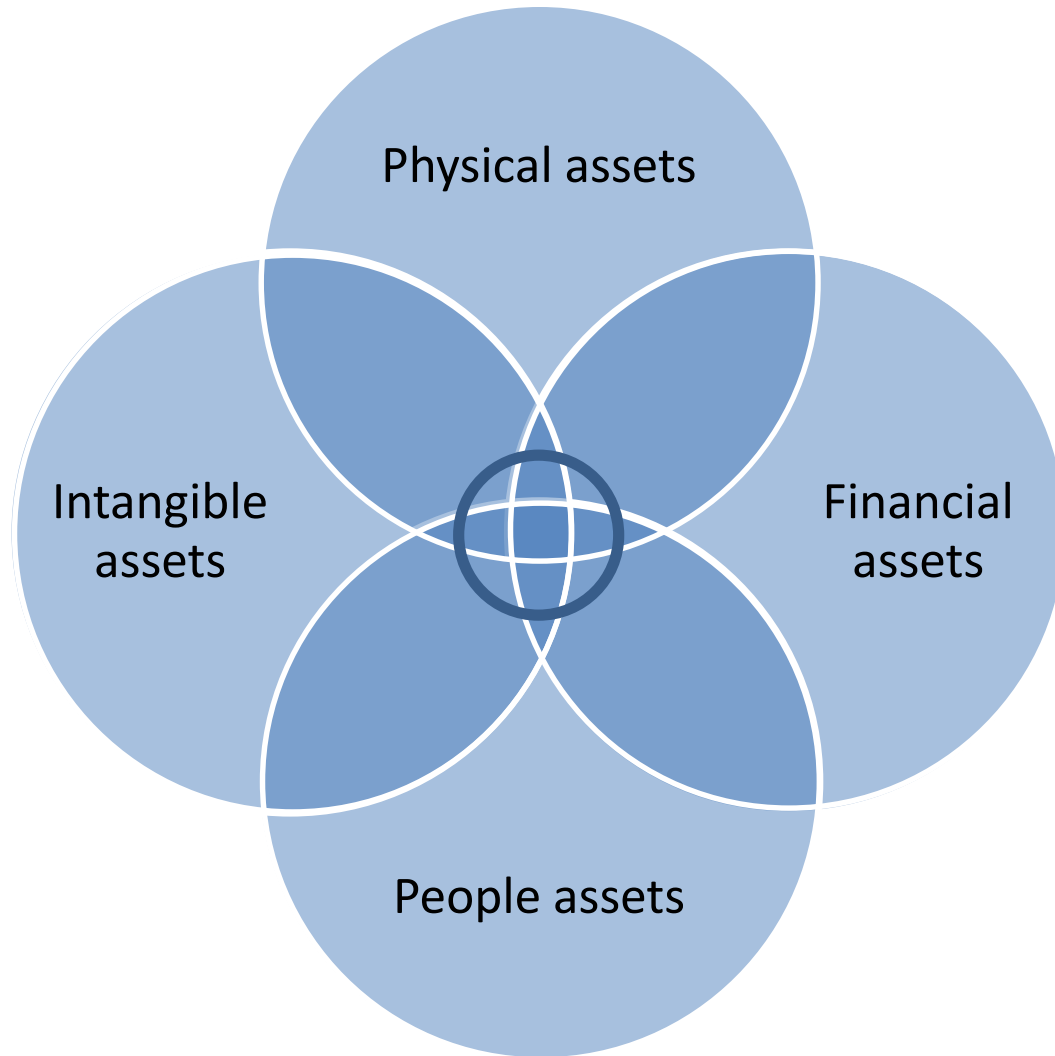
## Formally Introduced at JEA in 2009

## Publicly Available Specification-55 (PAS-55) adopted by JEA as a Standard in 2011



**Highly effective EAM program has allowed JEA to strengthen controls around CAPEX while simultaneously improving system operations**

# Strategic and Holistic Management of all JEA Assets





.....

# Conclusion

.....

# JEA's Outstanding Financial and Operational Performance Merits a Higher Credit Rating

## Electric

- ✓ Proactive base rate increase ahead of schedule
- ✓ Pension reform and contribution agreement
- ✓ Fuel diversity
- ✓ Vogtle risk mitigation
- ✓ Decreasing environmental risks
- ✓ \$1.3 billion debt repaid since 2010
- ✓ Cash funded capital plan
- ✓ Superior operational performance

## Water & Sewer

- ✓ Superior operational performance
- ✓ Robust growth in sales and customers
- ✓ Cash funded capital program for next five years
- ✓ \$417 million debt repaid since 2011
- ✓ Improved debt and liquidity metrics

Financial metrics have steadily improved since 2012 and support a credit rating upgrade

## JEA's Outstanding Financial and Operational Performance Merits a Higher Credit Rating

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# JEA's Outstanding Financial and Operational Performance Merits a Higher Credit Rating

## Electric

- ✓ Proactive base rate increase ahead of schedule
- ✓ Pension reform and contribution agreement
- ✓ Rates 7% below national average and stable in a rising environment
- ✓ Vogtle risk mitigation
- ✓ Decreasing environmental risks
- ✓ \$1.3 billion debt repaid since 2010
- ✓ Cash funded capital plan
- ✓ Superior operational performance

Financial metrics have steadily improved since 2012 and support a credit rating upgrade

## Water & Sewer

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Performance supports JEA's AAA credit rating



Supplemental

# Thomas F. Petway III



A lifelong resident of Jacksonville, Florida, Tom Petway has become one of the most successful business and respected civic leaders in Jacksonville and the state of Florida.

He is founder and member of the Board of Directors of US Assure, Inc., a national insurance marketing and administrative services company. Petway co-founded Prudential Network Realty and was a founding partner in the NFL's 30<sup>th</sup> franchise, the Jacksonville Jaguars. He was Co-Chairman of the organizing group for Super Bowl XXXIX and Co-Chairman and CEO of the Jacksonville Super Bowl Host Committee, Inc.

He is very active in local, state and national politics. He continues to be a member of the Republican Regents, representing his significant commitment to the Republican Party. Petway also served as President George W. Bush's State Finance Co-Chairman in Florida Bush-Cheney 04, Inc.

Tom Petway is involved in numerous business and civic activities. From 1999 until its elimination in July, 2001, he served his second gubernatorial appointment to the Board of Regents of the State University System of Florida, serving as Chairman for two years; he previously served on the Board from 1989 until 1995. He served as Chairman of the Board of Governors of the State University System of Florida during 2003. He served two terms as Chairman of the Jacksonville Economic Development Commission. Petway served as Chairman of the Board of Directors, Community Hospice of Northeast Florida Foundation for Caring. In addition he is Past Chairman, Florida Residential Property and Casualty Joint Underwriting Association; Past Chairman, The Florida State University Foundation; Past Director, Foundation for Florida's Future; Trustee, Past Chairman and CEO of the Jacksonville Chamber of Commerce; Past Chairman, City of Jacksonville Preservation Project; Past Director and Treasurer, World Golf Village, Inc.; Past President and Honorary member of the Southeast Jacksonville Rotary Club, and has served on the Jacksonville Transportation Authority.

Mr. Petway graduated from Terry Parker High School, Jacksonville, in 1958 and received a Bachelor of Science Degree from Florida State University School of Business, in 1962. In 1999 he received FSU's prestigious Honorary Doctorate of Humane Letters for his leadership and accomplishments. In addition, Petway was inducted into the Florida Council on Economic Education's First Coast Business Hall of Fame in 1999.







Ed Burr is president and chief executive officer of GreenPointe Holdings, LLC, a diversified holding company that brings together the necessary disciplines to create sustainable, high-value communities throughout the Southeastern United States. Burr is widely considered a leader in the real estate industry for his ability to analyze real estate potential and to lead companies that create unparalleled communities known for their recreational, residential and commercial value.

Prior to leading GreenPointe Holdings, Burr founded the LandMar Group LLC in 1987 and led the company's creation of master-planned, award-winning communities in Florida and coastal Georgia. Burr's career started as a CPA with Coopers & Lybrand working in Miami and New York City. Burr also founded Hampton Golf & Lifestyles Management with former PGA of America President M.G. Orender in 1998 to develop and manage golf courses and community recreational facilities across the country.

Throughout his career, Burr has been actively involved in business, civic and community organizations. He currently serves as Chairman of Jacksonville Civic Council and has served as the Chairman of the Jacksonville Regional Chamber of Commerce and as the Government Affairs Committee Chair for the Chamber Board of Directors. Burr was named Developer of the Year by his peers and accepted a gubernatorial appointment to the Jacksonville Transportation Authority serving as Chairman in 2012 and 2013. Actively involved in several national and regional development organizations, he also serves on the Florida State University Board of Trustees, the Board at Episcopal School of Jacksonville, Fresh Ministries, Urban Land Institute and is a past board member of Northeast Florida Builders Association and the University of North Florida Foundation. A longtime advocate for bettering the lives of children, Burr is founder of the Monique Burr Foundation for Children, a foundation committed to the prevention of bullying and child abuse.

# Delores P. Kesler



Ms. Delores M. Kesler has been the Chairman and Chief Executive Officer of Adium LLC since 1997. Ms. Kesler founded Talagy Inc. (also known as ATS Services Inc.) in 1977 and serves as its Chairman Emeritus and served as its Chairman since February 2007. She founded AccuStaff Inc., a strategic staffing, consulting and outsourcing venture and served as its Chairman and Chief Executive Officer from 1978 to 1997. She has been the Chairman of PSS World Medical Inc. since ... February 2010. She has been a Director of ATS Services Inc. since February 2007. Ms. Kesler has been Lead Independent Director of Physician Sales & Service, Inc. since July 1993. She serves as a Director of Horatio Alger Association of Distinguished Americans Inc. and the University of North Florida Foundation. She served as an Independent Director of The St. Joe Company from February 10, 2004 to May 17, 2012. She served as a Director of Thermoview Industries Inc., Heritage Bank in Orange Park, Florida, and St. Luke's/Mayo Foundation. Ms. Kesler served as a Director of MPS Group, Inc. since 1997.

# Husein A. Cumber



Mr. Cumber is Executive Vice President for Corporate Development for Florida East Coast Industries, LLC (FECI). He has responsibility for guiding capital projects, including All Aboard Florida which is the first privately owned, operated and maintained intercity passenger rail system in the U.S.

Prior to joining FECI, Mr. Cumber was Executive Vice President for Corporate Development for Florida East Coast Railway, LLC (FEC), an affiliate company of FECI. Mr. Cumber had responsibility for structuring and managing several major capital projects, including reconnecting the FEC to the Port of Miami, the construction of new intermodal container transfer facilities, and working with public agencies to introduce commuter rail service in the FEC corridor.

Previously, Mr. Cumber was President of H.A. Cumber & Company, a transportation consulting firm that specialized in rail, transit and highway issues. The firm provided business development and government relations support throughout the country.

Mr. Cumber served as the Deputy Chief of Staff at the U.S. Department of Transportation and prior to that was the Assistant to the Secretary for Policy. Mr. Cumber assisted in the daily operations of a federal agency with approximately 60,000 people and a \$70 billion budget. He provided policy direction for highways, motor carriers, pipelines, railroads (including Amtrak), transit, and domestic security issues. Mr. Cumber was nominated by President George W. Bush on May 20, 2008 to be a Member of the Surface Transportation Board. His nomination was terminated after the November 2008 election.

Prior to his appointment at U.S. DOT, Mr. Cumber led the public affairs efforts for Florida East Coast Industries, Inc. (FECI), a NYSE-traded company that then included the assets of what is today FEC and FECI. In this role, Mr. Cumber was credited for securing over \$50 million in public funds to build additional freight capacity in the FEC Railway corridor. Mr. Cumber also coordinated crisis communications for the Company and served as the corporate spokesperson.

Mr. Cumber is a Board Member of JEA, the seventh largest community-owned electric utility company in the United States and largest in Florida, and is a Board Member of the Florida State College Foundation. He is the past President of the Florida Railroad Association and past Board Member of the Coalition for America's Gateways and Trade Corridors. Mr. Cumber has previously served on the Boards of the North Broward YMCA, the Florida Telecommunications Industry Association and the Strategic Intermodal Transportation Advisory Committee. Mr. Cumber was a founding member of the Florida Intermodal Transportation Association and is a graduate of Leadership Florida.

Mr. Cumber is a graduate of Duke University and holds a Bachelor of Arts degree in U.S. National Security. He, his wife (LeAnna), son (Jake) and daughter (Penelope) currently reside in Jacksonville, Florida.

Mr. Cumber was appointed to the JEA Board in February of 2014 for a four year term which expires February 28, 2018.



# Kelly Flanagan



A Jacksonville native, Kelly Flanagan was named the Jaguars' senior vice president and Chief Financial Officer in August 2014, after joining the organization in 2012 and being promoted to vice president in 2013. She is responsible for developing and leading the team and related entities' financial strategy, including planning and business analytics, corporate accounting and financial reporting and analysis.

Flanagan has extensive experience in sports business. Prior to joining the Jaguars, along with now Jaguars President Mark Lamping, she was a member of the executive team at the New Meadowlands Stadium, later MetLife Stadium, home to the New York Giants and New York Jets. Flanagan served in the finance department during the construction and commissioning of the new stadium, ultimately being named controller and lead stadium finance representative to the venue's primary tenants and owners, the Giants and Jets.

Prior to serving at MetLife Stadium, Flanagan was a member of the Entertainment & Media practice of PricewaterhouseCoopers in New York City, where she consulted for both public and private sports and entertainment clients and obtained her C.P.A. license. She has been named a "Game Changer" by *SportsBusiness Journal*.

A graduate of Episcopal School of Jacksonville where she currently serves as a member of its Board of Trustees, Flanagan holds a M.S. in Sports Management degree from Columbia University in New York City and a bachelor's degree in Accounting as well as an M.B.A. from the Ervin K. Haub School of Business at Saint Joseph's University in Philadelphia. She was appointed by the Mayor and confirmed by the City Council to serve as a member of the Board of Directors of the Jacksonville Electric Authority.

# G. Alan Howard



G. Alan Howard is a native of St. Simons Island, Georgia. Mr. Howard received his law degree and undergraduate degree, with high honors, from the University of Georgia.

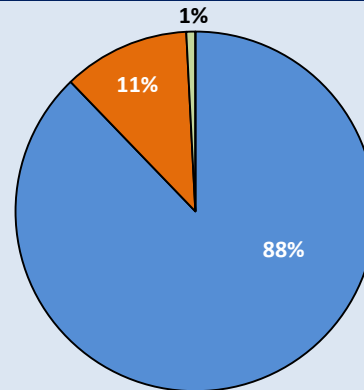
Mr. Howard is a transactional attorney whose practice focuses on mergers, acquisitions, project finance, corporate finance and securities matters. His clients span a range of industry sectors, including energy, technology, insurance and financial services. He regularly advises clients on corporate governance issues. Mr. Howard represents buyers and sellers of small to mid-market companies in mergers, stock purchase and asset purchase transactions. He is experienced in the structuring, negotiation and documentation of a broad spectrum of syndicated and non-syndicated credit transactions involving both domestic and foreign companies in a wide variety of industries. These transactions include public and private bond financing, secured and unsecured loan facilities, senior, subordinated and mezzanine credit facilities, asset based loan facilities, and construction loan facilities. Mr. Howard also represents individual, family office and institutional investors in selected investment transactions. Mr. Howard represents startup to early market companies in exempt limited offerings. Mr. Howard also represents both lenders and sponsors in project finance transactions involving the acquisition, construction and financing of electric power generation and landfill gas conversion facilities.

# Electric System Customer Breakdown

## Ten Largest Customer Accounts

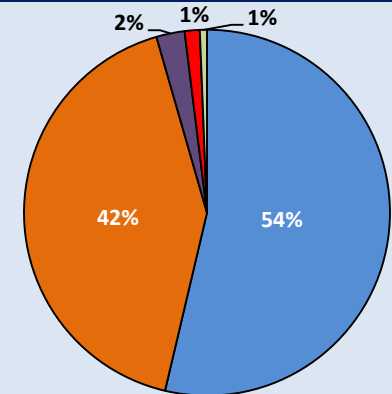
Customer Accounts	Annual \$ Billed	Percent of Revenues
Florida Public Utilities	\$27,428,185	2.2
US Navy Public Works Center	24,687,677	2.0
City of Jacksonville	23,499,952	1.9
Gerdau Ameristeel US Inc.	16,575,303	1.3
Duval County School District	15,844,532	1.3
WestRock CP LLC	13,778,101	1.1
Publix Supermarkets Inc.	8,435,524	0.7
Winn Dixie Stores, Inc.	8,200,898	0.7
Southern Baptist Hospital of Florida Inc.	7,906,681	0.6
Johnson & Johnson Vision Care Inc.	7,270,467	0.6
<b>TOTAL</b>	<b>\$153,627,320</b>	<b>12.4</b>

## Average Number of Accounts



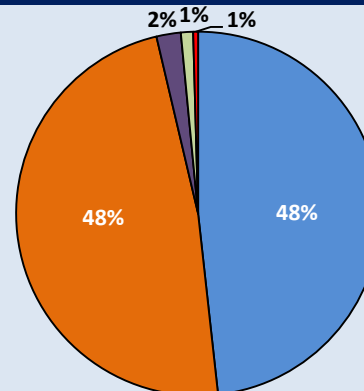
Total = 451,788

## System Sales (MWh)



Total = 12,730,288

## Revenues (\$ in millions)



Total = \$1,242

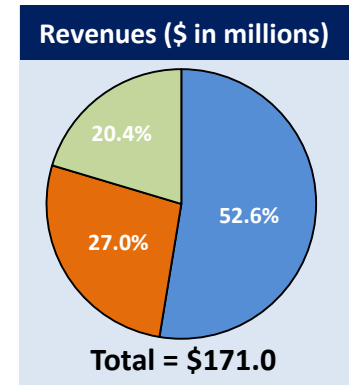
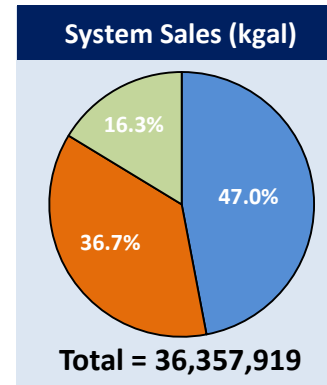
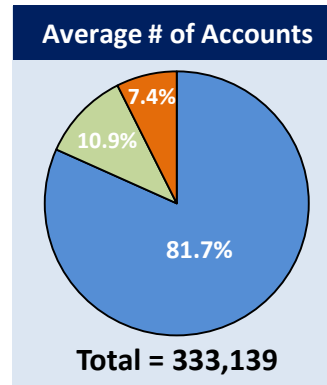
- Residential
- Commercial & Industrial
- Public Street Lighting
- Sales for resale - Territorial
- Sales for resale - Off system



# Water & Sewer System Customer Breakdown

## Water System

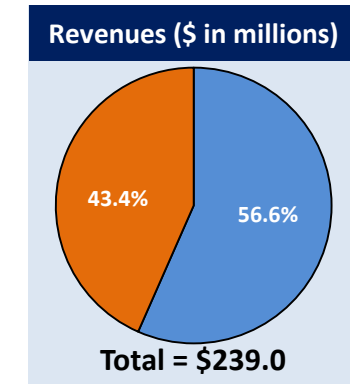
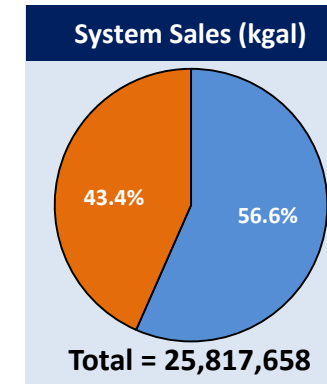
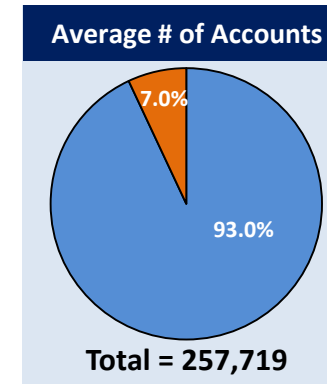
Ten Largest Customer Accounts	Annual \$ Billed	Percent of Revenues
City of Jacksonville	\$2,320,203	1.3
Duval County School District	1,166,310	0.6
St. Johns County Utility	626,906	0.3
Southern Baptist Hospital of Florida Inc.	591,494	0.3
Johnson & Johnson Vision Care Inc.	422,696	0.2
The American Bottling Company	402,563	0.2
St Vincents Health System Inc.	392,969	0.2
University of North Florida	389,975	0.2
Standard Pacific of Florida GP Inc.	319,084	0.2
Jacksonville Housing Authority	318,106	0.2
<b>TOTAL</b>	<b>\$6,950,306</b>	<b>3.7</b>



■ Residential    
 ■ Commercial & Industrial    
 ■ Irrigation

## Sewer System

Ten Largest Customer Accounts	Annual \$ Billed	Percent of Revenues
City of Jacksonville	\$3,125,827	1.3
Duval County School District	2,260,366	0.9
St. Johns County Utility	1,152,405	0.5
The American Bottling Company	1,114,089	0.5
Southern Baptist Hospital of Florida Inc.	997,608	0.4
St Vincents Health System Inc.	945,871	0.4
Mayo Clinic Jacksonville	823,732	0.3
American Home Portfolio LLC	802,268	0.3
Jacksonville Housing Authority	776,873	0.3
Florida Coca Cola Bottling	756,667	0.3
<b>TOTAL</b>	<b>\$12,755,706</b>	<b>5.2</b>



# Electric System Power Resource

## Existing Generation Capacity = 3,408<sup>1</sup> MWs

Facility	Primary Fuel Type	Generating Capacity (in MW)	Year in Service
<b>Natural Gas: 1,790 MW (56%)</b>			
Brandy Branch	Natural Gas	651	2001 – 2005 <sup>3</sup>
Northside Gen Unit 3 <sup>2</sup>	Natural Gas/Oil	524	1977
Kennedy	Natural Gas	300	2000 – 2009 <sup>3</sup>
Greenland Energy Center	Natural Gas	300	2011
Trail Ridge	Landfill Gas	15	1997 – 2015 <sup>3</sup>
<b>Solid Fuel: 1,406 MW (44%)</b>			
SJRPP	Coal	626	1987 – 1988 <sup>3</sup>
Northside Gen Units 1 & 2	Pet Coke	586	2003
Scherer 4	Coal	194	1989
<b>Peaking Reserve: 212 MW</b>			
Northside CTs	Diesel Fuel Oil	212	1975
<b><u>Grand Total: 3,408 MW</u></b>			
Jacksonville Solar	Solar PV	12	2010
New Solar	Solar PV	36.5	2017
Plant Vogtle (future)	Nuclear	206	2019/2020

JEA also has the ability to purchase power via The Energy Authority (TEA)

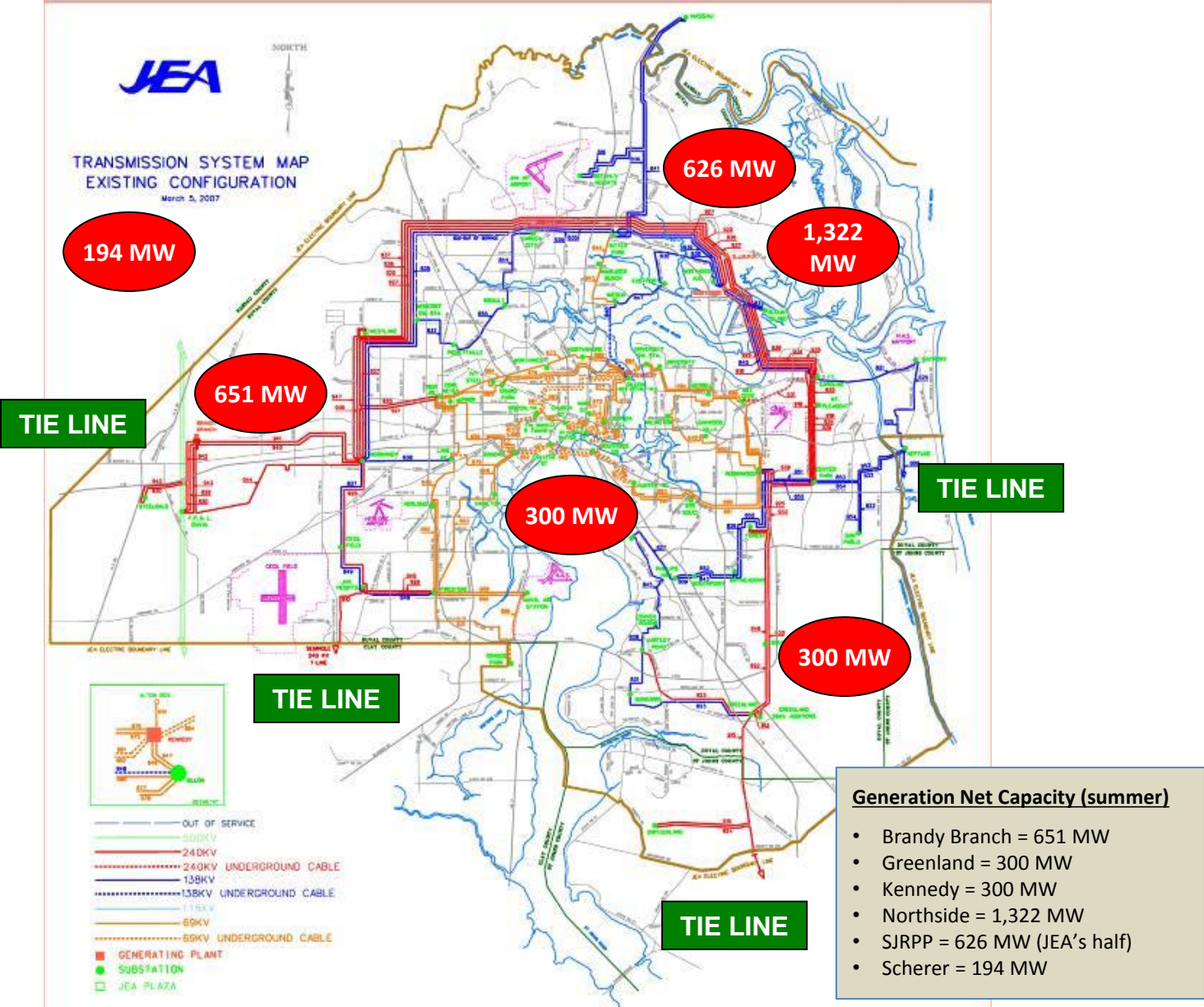
<sup>1</sup> Based on summer net ratings and entitled capacity. Winter net ratings and entitled capacity is 3,743 MW

<sup>2</sup> Northside Unit 3 (NS3) will be placed into reserve storage by Spring 2017, approximately two years ahead of the unit's scheduled retirement

<sup>3</sup> Multiple units and multiple in-service dates



# Transmission System



# Brandy Branch (501 Total MW<sup>1</sup> – Natural Gas CC)



FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 EFOR	Industry Average EFOR
6,926	71.8%	84.4%	.77%	6.3%

- Continues to be a flexible gas fired “work horse”, with 2016 capacity factor of 54.8%
- Can be base-load or intermediate duty
- Likely model for future generating resources
- Located near two interstate gas pipelines
- EAF low due to rebuild of all three turbines
- Completed a major planned outage on the 15-year old CC unit this past Spring
- 1<sup>st</sup> steam turbine major overhaul
- 3<sup>rd</sup> hot gas path inspection and 1<sup>st</sup> major on combustion turbines
- Approximately \$15m over on the project – cracks were found in the CT wheels, installed enhanced compressor blade upgrades (avoiding the upgrade during the next planned outage)
- Improved the heat rate efficiency by 4% (~21MW output)

## ENVIRONMENTAL CONSIDERATIONS

- No significant environmental issues
- Unit would be a 111(d) unit under the CPP, and the capacity factor would be expected to increase

<sup>1</sup> Based on summer net ratings

<sup>2</sup> Average for like units reported in NERC’s 2014 Generating Unit Statistical Brochure

# Northside 1 & 2 (586 Total MW<sup>1</sup> – CFBs)



FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 EFOR	Industry Average EFOR
10,018	85.3%	82.7%	1.5%	7.7%

- Fuel flexibility (pet coke, coal, biomass, natural gas co-firing, etc.)
- Northside CFBs commenced commercial operation in 2003 using best available technology
- FY16 capacity factor of 70.1%

## ENVIRONMENTAL CONSIDERATIONS

- Modern plant that performs in compliance with current and future environmental regulations except for pending CPP carbon regulations
- As a solid fuel plant burning predominately petroleum coke as opposed to coal, the unit is exempt from the CCR rule
- Plan to delay capital investment for any new environmental compliance until there is clarity on the CPP
- Ability to burn biomass and co-fire natural gas helps mitigate CPP impact

Note: Environmental considerations included are highest probability and highest impact for each generating facility

<sup>1</sup> Based on summer net ratings

<sup>2</sup> Average for like units reported in NERC's 2014 Generating Unit Statistical Brochure

# Northside 3 (524 MW<sup>1</sup> – Oil/Natural Gas)



FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 EFOR	Industry Average EFOR
10,851	86.8%	77.6%	0.7%	19.5%

- Reliable natural gas and oil facility built in the late 1970s
- FY16 capacity factor of 32.8%

We are re-evaluating the plan to move the unit into reserve storage by Spring 2017, approximately two years ahead of the unit's scheduled retirement

## ENVIRONMENTAL CONSIDERATIONS

No significant environmental issues anticipated with unit in reserve storage

Note: Environmental considerations included are highest probability and highest impact for each generating facility

<sup>1</sup> Based on summer net ratings

<sup>2</sup> Average for like units reported in NERC's 2014 Generating Unit Statistical Brochure

# SJRPP 1 & 2 (626 Total MW<sup>1</sup> – Coal)

Additional 376 MW (bringing total capacity to 1,002 MW) on suspension of sale to FPL in 2018-2020 time frame

FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 EFOR	Industry Average EFOR
10,798	88.2%	82.5%	4.6%	7.2%

- Extremely reliable solid fuel capacity
- Coal capacity provides cost stability to hedge fluctuations in natural gas prices
- FY16 capacity factor of 38.0%<sup>3</sup>

## ENVIRONMENTAL CONSIDERATIONS

- State-of-the-art Selective Catalytic Reduction equipment installed between 2006 and 2009
- MATS compliance on Colombian coal mitigates capital investment in additional environmental control equipment
- 316(b) compliant with cooling tower
- CCR compliant
- ELG final rule published November 3, 2015 and phase in implementation commencing between 2017 to 2023
- ELG cost impact expected due to the need to treat the Flue Gas De-Sulfurization (FGD) blow-down and bottom ash water
- CPP impact TBD

Note: Environmental considerations included are highest probability and highest impact for each generating facility.

<sup>1</sup> Based on summer net ratings and entitled capacity

<sup>2</sup> Average for like units reported in NERC's 2014 Generating Unit Statistical Brochure

<sup>3</sup> JEA's portion

# Scherer 4 (194 MW<sup>1</sup> – Coal)



FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 EFOR	Industry Average EFOR
10,581	84.5%	83.5%	1.5%	5.8%

- Extremely reliable solid fuel capacity
- Consistently a low cost generation source
- Fuel – PRB – Provides additional fuel diversity
- FY16 capacity factor of 62.8%<sup>3</sup>

## ENVIRONMENTAL CONSIDERATIONS

- Air quality control upgrades (SCR, scrubber, PAC injection and bag house) installed between 2007 and 2013
- CCR final rule April 17, 2015 with phased in implementation commencing on October 19, 2015
- ELG final rule published November 3, 2015 and phase in implementation commencing between 2017 to 2023
- CPP impact TBD

Note: Environmental considerations included are highest probability and highest impact for each generating facility

<sup>1</sup> Based on summer net ratings and entitled capacity

<sup>2</sup> Average for like units reported in NERC's 2014 Generating Unit Statistical Brochure

<sup>3</sup> JEA's portion

# (5) GE 7FA Combustion Turbines (750 total MW<sup>1</sup> for GEC, Kennedy, Brandy Branch)



FY16 Average Heat Rate	FY16 EAF	Industry Average EAF <sup>2</sup>	FY16 First Start Reliability	Industry Average First Start Reliability <sup>3</sup>
11,317	97.2%	89.4%	98.4%	98.3%

- Natural gas, clean, quick start – most flexible units serve peak, able to burn fuel oil in the event of natural gas shortages
- Minimal usage due to dispatch order, reduced peak demand and fleet flexibility
- Low capital cost, low fixed O&M
- Short timetable for new capacity additions
- GEC site is designed for future combined cycle conversion

## ENVIRONMENTAL CONSIDERATIONS

- No current environmental issues
- As peaking units with low capacity factor, these units are not included as 111(d) units under the CPP

<sup>1</sup> Based on summer net ratings

<sup>2</sup> Average for like units reported in NERC's 2014 Generating Unit Statistical Brochure

<sup>3</sup> 2014 NERC Generating Availability Report



# Hurricane Matthew

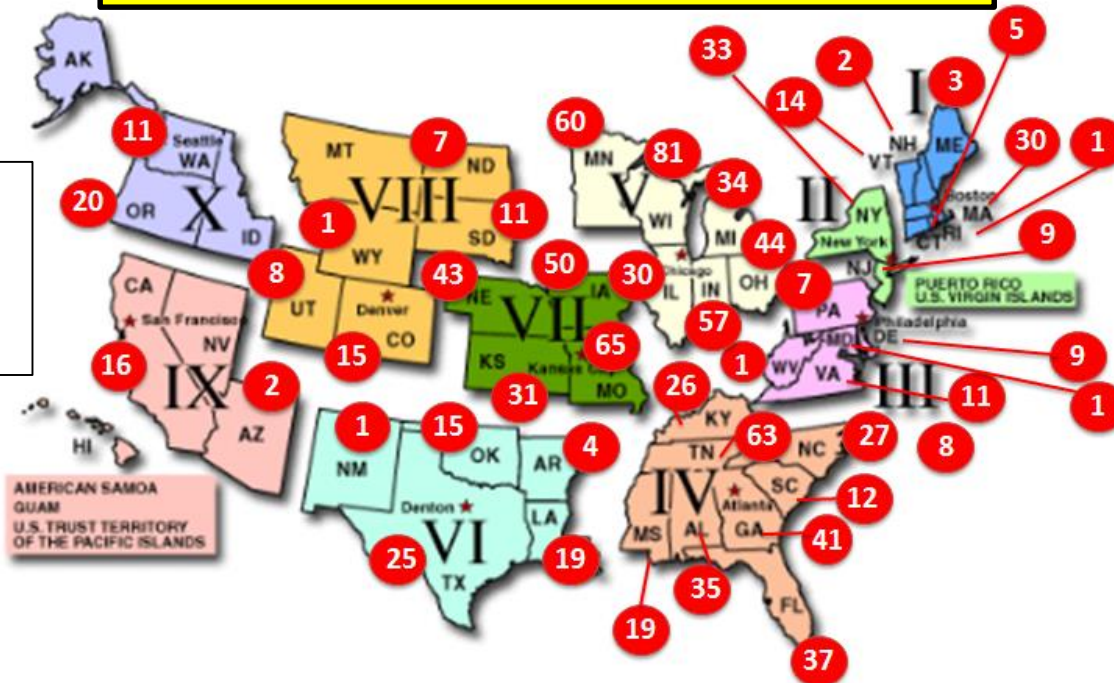


# JEA's Hurricane Readiness Prior to the Storm

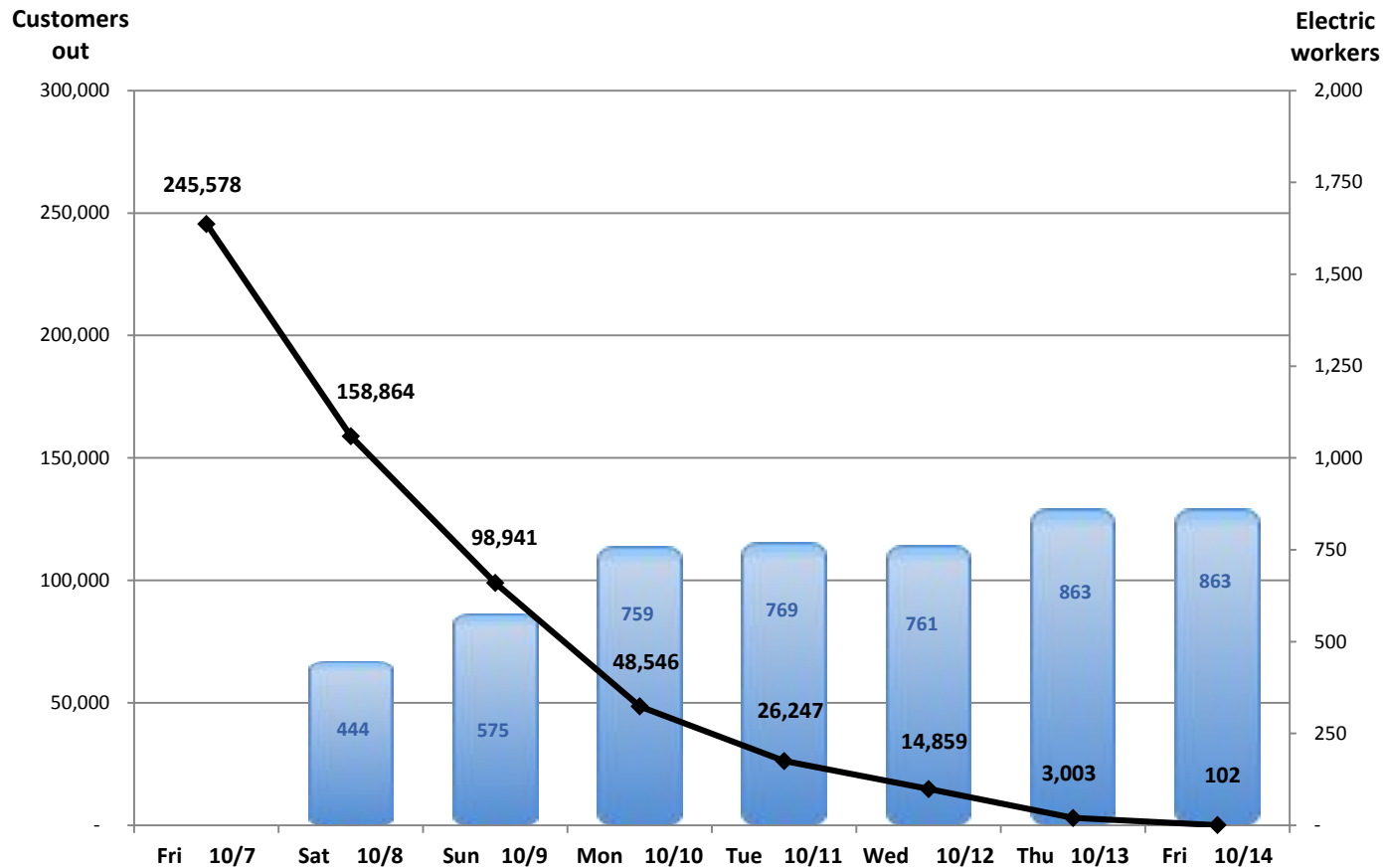
- Dedicated team established in 2013 and works on JEA's Emergency Preparedness every day
- National Incident Management Structure (NIMS) implemented in 2013
- JEA's SLT and employees have completed over 8,000 hours of NIMS training requirements
- Fully integrated with County/State/Federal
- System-hardening projects have significantly increased JEA's capacity to respond
- Standards of Preparedness in place to recover from a hurricane
- Back up procedures implemented and undergo regular testing, e.g. Fleet refueling from Generation Fuel Tanks, Financial Cost and Recovery processes, etc.

**More than 1,000 mutual aid agreements in place**

JEA was assisted by 10 different utilities



# Electric System Restoration Timeline



Note: outage numbers as of midnight

- Approximately 100,000 customers restored in first 24 hours
- All schools, major commercial and hospitals restored by 7:20 p.m. Sunday, October 16, 2016
- As of 11:59 p.m. Monday, October 17, 2016 approximately 90% of customers had power
- Unprecedented tree damage all over NE FL led to longer-than-expected restoration time

# Financial Impact and Lessons Learned

## Financial impact

(\$ in millions)

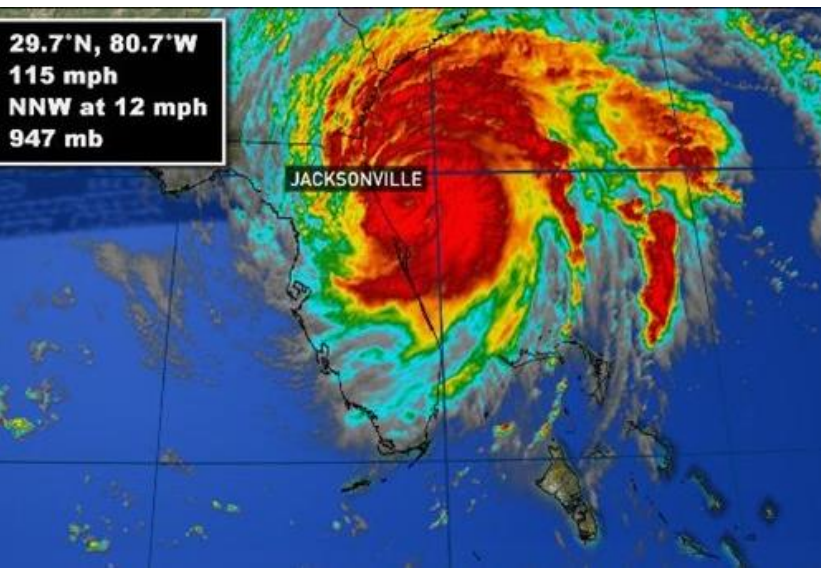
Total Estimated Damages	<u>\$35.00</u>
Property Insurance	\$8.5
FEMA Federal Reimbursement	19.9
State of Florida Reimbursement	3.3
JEA Self Insurance Reserves	3.3
<b>Total</b>	<u><b>\$35.00</b></u>

## JEA Success

- System-hardening projects increased our capacity to respond
- Back-up procedures had been implemented and tested
- Mutual aid agreements in place and ready to go ahead of storm
- Increased communications to customers before, during and after storm

## JEA Opportunities

- Reviewing expansion of back-up generation at pump stations for major events
- Reviewing timing of mobilization and process of scaling up mutual aid resources
- Identified opportunities for enhanced procedures, currently being implemented





.....  
**Supplemental Financial Information**  
.....

# District Energy System Five Year Financial Projections

## Net Revenues and Debt Service Coverage Ratios

District Energy System (\$000s)	Actual	2017	2018	2019	2020	2021
	2016					
Sales Revenue	\$8,731	\$8,446	\$8,446	\$8,446	\$8,446	\$8,446
Other Income	\$22	\$0	\$0	\$0	\$0	\$0
Rate Stabilization Transfer	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$8,752	\$8,446	\$8,446	\$8,446	\$8,446	\$8,446
Operating Expenses	\$4,822	\$4,681	\$4,705	\$4,729	\$4,754	\$4,780
<b>Net Revenue</b>	<b>\$3,930</b>	<b>\$3,765</b>	<b>\$3,741</b>	<b>\$3,717</b>	<b>\$3,692</b>	<b>\$3,666</b>
Total Debt Service	\$3,024	\$3,022	\$3,019	\$3,020	\$3,021	\$3,024
Debt Service Coverage	1.3x	1.2x	1.2x	1.2x	1.2x	1.2x

## Projected Funding Plan

District Energy System (\$000s)	Actual	2017	2018	2019	2020	2021
	2016					
Internal Funds <sup>1</sup>	\$890	\$743	\$722	\$696	\$671	\$642
Construction Fund <sup>2</sup>	\$691	\$2,328	\$702	\$746	\$679	\$1,141
Debt Financing	\$0	\$0	\$0	\$0	\$0	\$0
<b>Capital Plan</b>	<b>\$1,581</b>	<b>\$3,071<sup>3</sup></b>	<b>\$1,424</b>	<b>\$1,442</b>	<b>\$1,350</b>	<b>\$1,783</b>
Principal Payments	\$1,625	\$1,640	\$1,660	\$1,690	\$1,725	\$1,770

<sup>1</sup>Internal funds are generated from R&R and operating capital outlay

<sup>2</sup>Draw down from the capital fund and the debt management strategy fund

<sup>3</sup>Includes a \$2m capital expense for the Springfield backup cooling tower project