

**JEA  
FINANCE & AUDIT COMMITTEE AGENDA**

**DATE:** March 13, 2017  
**TIME:** 8:00 – 10:00 AM  
**PLACE:** 21 W. Church Street  
8<sup>th</sup> Floor

			<b>Responsible Person</b>	<b>Action (A) Info (I)</b>	<b>Total Time</b>
<b>I.</b>	<b>OPENING CONSIDERATIONS</b>		Kelly Flanagan		
	A.	Call to Order			
	B.	Adoption of Agenda		A	
	C.	Approval of Minutes – December 1, 2016	Melissa Charleroy	A	
<b>II.</b>	<b>NEW BUSINESS</b>				
	A.	FY2018 Budget Assumptions	Melissa Dykes	I	30 mins.
	B.	JEA Annual Disclosure Policy Report	Melissa Dykes	I	5 mins.
	C.	Ernst & Young FY2016 Revised Management Letter	Janice Nelson	I	5 mins.
	D.	Audit Services			
	1.	Quarterly ERM/Audit Update	Steve Tuten	I	10 mins.
	2.	Finance & Audit Committee Members – Self-Assessment Survey Questionnaire	Steve Tuten	I	5 mins.
	E.	Cyber Security Activities	Paul Cosgrave	I	10 mins.
	F.	CIP Compliance Update	Ted Hobson	I	10 mins.
	G.	Ethics Officer Report	Walette Stanford	I	5 mins.
	H.	JEA Energy Market Risk Management Policy Report	Steven McInall	I	5 mins.
	I.	Treasury			
	1.	Resolution Determining the Sufficiency of Revenues – St. Johns River Power Park	Joe Orfano	A	1 min.
	2.	Recap of Recent JEA Electric System Fixed Rate Debt Refunding Delegated Transactions	Joe Orfano	I	5 mins.
	3.	Electric System and Water and Sewer System Reserve Fund Quarterly Report	Joe Orfano	I	5 mins.
	J.	Announcements			
	1.	Next Meeting, May 8, 2017, 8:00 – 10:00 AM			
	K.	Committee Discussion Sessions			
	1.	Ernst & Young	John DiSanto	I	5 mins.
	2.	Director, Audit Services	Steve Tuten	I	5 mins.
	3.	Council Auditor's Office	Robert Campbell	I	5 mins.
	L.	Adjournment			

I. C.

Approval of Minutes

JEA FINANCE & AUDIT COMMITTEE MINUTES  
December 1, 2016

The Finance & Audit Committee of JEA met on Thursday, December 1, 2016, in the 8<sup>th</sup> Floor Conference Room, JEA Plaza Tower, 21 W. Church Street, Jacksonville, Florida.

**Agenda Item I – Opening Considerations**

- A. Call to Order – Committee Chair Flanagan called the meeting to order at 2:02 PM with Members Board Chair Tom Petway and Husein Cumber in attendance. Board Vice Chair Ed Burr was absent and excused. Others in attendance were Paul McElroy, Melissa Dykes, Jody Brooks, Mike Brost, Brian Roche, Ted Hobson, Steve Tuten, Janice Nelson, Joe Orfano, Judi Spann, Steve McInall, Walette Stanford, Ryan Wannemacher, Jane Upton, Sharon Van Den Heuvel, Gerri Boyce, John DiSanto, Johan Flostrand, and Russ Jeans, Ernst & Young, Robert Campbell, Council Auditors Office, and Sebastian Kitchen, Florida Times-Union.
- B. Adoption of Agenda – The agenda was adopted on **motion** by Mr. Cumber and second by Chair Petway.
- C. Approval of Minutes – The August 8, 2016 minutes were unanimously approved on **motion** by Chair Petway and second by Mr. Cumber.
- D. Approval of Minutes – The October 18, 2016 minutes were unanimously approved on **motion** by Chair Petway and second by Mr. Cumber.

**Agenda Item II – New Business**

- A. Quarterly Reports and Updates
  - 1. Audit Services – Quarterly ERM/Audit Report – Steve Tuten, Director, Audit Services, provided the Committee with key FY2016 and FY2017 Audit Services highlights, FY2017 Internal Audit Plan timeline, Enterprise Risk Management (ERM) Trend Report and key highlights, and Ethics Hotline Report. This presentation was received for information.
  - 2. Ethics Officer Quarterly Report – Walette Stanford, Ethics Officer and Director, Workforce Strategies, presented the Ethics Officer Quarterly Report, which was received for information.
  - 3. Electric System and Water and Sewer System Reserve Fund Quarterly Report – Joe Orfano, Treasurer, reviewed the Electric System and Water and Sewer System Reserve Fund Quarterly Report, which was received for information.
  - 4. JEA Energy Market Risk Management Policy Report – Materials were provided in the Finance and Audit Committee packages. No discussions were held.
- B. Action Items
  - 1. JEA Calendar Years 2017 and 2018 Fixed Rate Refunding Debt Parameter Resolutions for Electric, Water and Sewer and St. Johns River Power Park Systems – Following a review of the item by Joe Orfano, Treasurer, on **motion** by Mr. Cumber and second by Chair Petway, the Committee unanimously recommends that the Board approve and adopt Resolutions No. 2016-21, 2016-22, 2016-23, 2016-24 and 2016-25 and the related forms of Bond Purchase Agreement, Preliminary Official Statement, Escrow Deposit Agreement and Bond that will provide the Managing Director/CEO the authorization to price and execute Electric System, Subordinated Electric System, Water and Sewer System, Subordinated Water and Sewer

System and St. Johns River Power Park System Issue Three, respectively, fixed rate refunding bonds within the stated parameters.

C. Ernst & Young FY2016 External Audit Report – John DiSanto, Executive Director, Assurance, presented an overview of the 2016 Audit Report and Management Letter, copies of which were provided to Committee Members. Committee Members were also provided with a draft copy of JEA’s Audited Financial Statements. Mr. DiSanto recognized Russ Jeans, Senior Manager, and Johan Flostrand, Senior Manager. Chair Petway congratulated Mr. DiSanto and team, along with Melissa Dykes, Chief Financial Officer and staff for their excellent work.

D. Announcements

1. The next Finance and Audit Committee meeting is tentatively scheduled in March 2017 at 8:00 AM.

C. Committee Discussion Sessions

- 1. Director, Audit Services – At 2:44 PM, Committee Chair Flanagan dismissed staff and the Committee held a general conversation with Steve Tuten, Director, Audit Services.
- 2. Ernst & Young – At 2:47 PM, the Committee held a general conversation with John DiSanto.
- 3. Council Auditor’s Office – At 2:47 PM, the Committee held a general conversation with Robert Campbell.

**Closing Considerations**

With no further business claiming the attention of this Committee, the meeting was declared adjourned at 2:48 PM.

APPROVED BY:

\_\_\_\_\_  
Kelly Flanagan, Committee Chair

Date: \_\_\_\_\_

Submitted by:

\_\_\_\_\_  
Melissa Charleroy  
Executive Assistant

II. A.

FY2018 Budget Assumptions



Building Community

### AGENDA ITEM SUMMARY

February 27, 2017

<b>SUBJECT:</b>	<b>FY2018 BUDGET ASSUMPTIONS</b>
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<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input checked="" type="checkbox"/> Advice/Direction
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**Issue:** Present the key strategic issues, risks, major challenges and assumptions for the FY2018 Budget, to the Finance and Audit Committee for feedback and direction.

**Significance:** High. Key strategic issues and risks, major challenges, and assumptions significantly impact the FY2018 Budget.

**Effect:** The budget process is integral to JEA's strategic planning, financial performance and resulting metrics.

**Cost or Benefit:** The Committee provides feedback and direction regarding the key strategic issues, risks, major challenges, and assumptions for the FY2018 Budget covering: revenue; fuel revenue and expense; O&M expense levels; interest rates and the resulting financial metrics; capital expenditures and related financing plan.

**Recommended Board action:** Staff is providing this presentation for the Committee's consideration and requests feedback and direction regarding the FY2018 Budget.

**For additional information, contact:** Melissa Dykes

Submitted by: PEM/ MHD/ DRJ

<b>MISSION</b>  Energizing our community through high-value energy and water solutions.	<b>VISION</b>  JEA is a premier service provider, valued asset and vital partner in advancing our community.	<b>VALUES</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Service</li><li>• Growth<sup>2</sup></li><li>• Accountability</li><li>• Integrity</li></ul>
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#### Commitments to Action

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**

# FY2018 Budget

## Review of Key Issues, Risks, Challenges and Assumptions

Finance & Audit Committee

March 13, 2017

# Agenda

## Strategic Issues and Risks

### Key Assumptions

### Electric System Budget Assumptions

### Water and Sewer System Budget Assumptions

### Government Transfers via the JEA Bill



# FY2018 Budget: Strategic Issues and Risks

## Strategic Plan Implementation – Emphasizing Business Excellence Opportunities

Seek out opportunities to drive business excellence through the EAM program and process improvements  
Remain focused on customer loyalty  
Build on momentum toward building an unbeatable team

## Workforce Readiness

Succession planning  
Performance management  
Workforce diversity

## Financial Performance and Flexibility

Fuel supply and pricing flexibility  
Strong focus on expense management – strategic opportunities  
Pension cost

## Future Environmental Constraints on Electric Generation

Customer Benefit Programs and rate structures  
Renewable electricity and nuclear generation investment  
Rightsizing long-term electric generation

## Water Resource Management and Health of the St. Johns River

CUP<sup>1</sup> Compliance – Reclaim, conservation programs, minimum flow and levels (MFL)  
TMDL<sup>2</sup> goal attainment  
Sewer system resiliency

<sup>1</sup> CUP - Consumptive Use Permit

<sup>2</sup> TMDL - Total Maximum Daily Load - Nitrogen discharge to St. Johns River

# Agenda

Strategic Issues and Risks

**Key Assumptions**

Electric System Budget Assumptions

Water and Sewer System Budget Assumptions

Government Transfers via the JEA Bill

# FY2018 Budget: Key Assumptions

## Revenue Projections

- Economic activity remains stable or improves slightly
- Net customer account annual growth at 2%
- Annual Electric unit sales projected to be 12.4 million MWhs, flat to the MWhs budgeted in FY2017
- Annual Water unit sales projected to be 39 million Kgals, up from 35 million Kgal sales budgeted in FY2017

## Fuel and Purchased Power Costs

- FY2018 projection reflects higher solid fuel prices
- FY2018 year-end fuel reserve balances projected to be 15% of target expense

## Labor Costs

- Budgeted payroll expense increased only 7.7% in 10 years as a result of constrained hiring and multiple years of no general wage or salary increases
- Bargaining unit wages do not yet reflect newly-negotiated contracts
- Pension costs set to equal to FY17 levels as a placeholder
- Staffing risks mitigated with continuation of Workforce Readiness and Succession Planning initiative

# Agenda

**Strategic Issues and Risks**

**Key Assumptions**

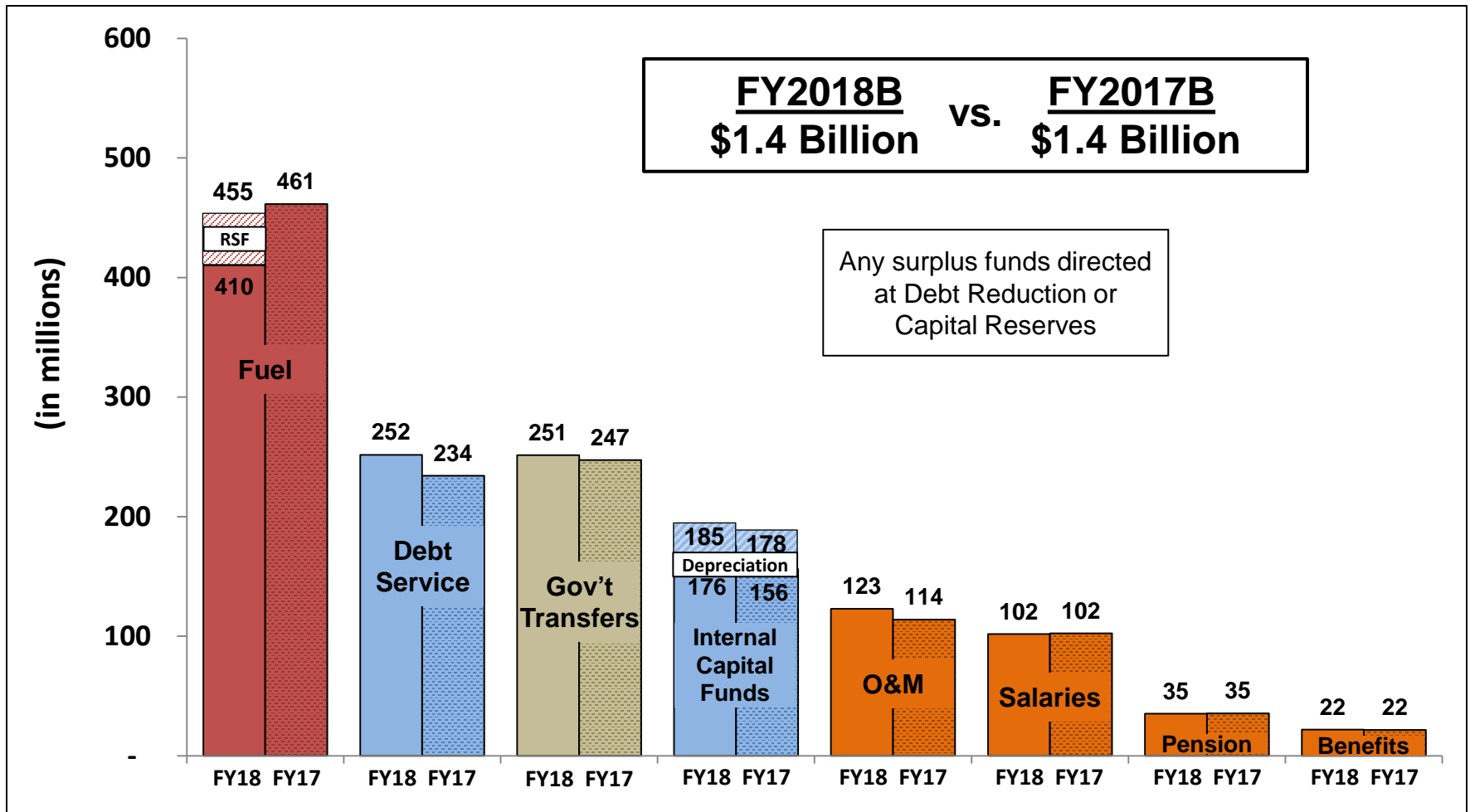
## **Electric System Budget Assumptions**

- ✓ **Customer Electric Bill by Expense Category**
- ✓ **Revenue Drivers**
- ✓ **Fuel Rate**
- ✓ **Operating Expenses**
- ✓ **Capital Funding - Debt Service, Oper. Capital Outlay and Renewal & Replacement**
- ✓ **Debt Service**

**Water and Sewer System Budget Assumptions**

**Government Transfers via the JEA Bill**

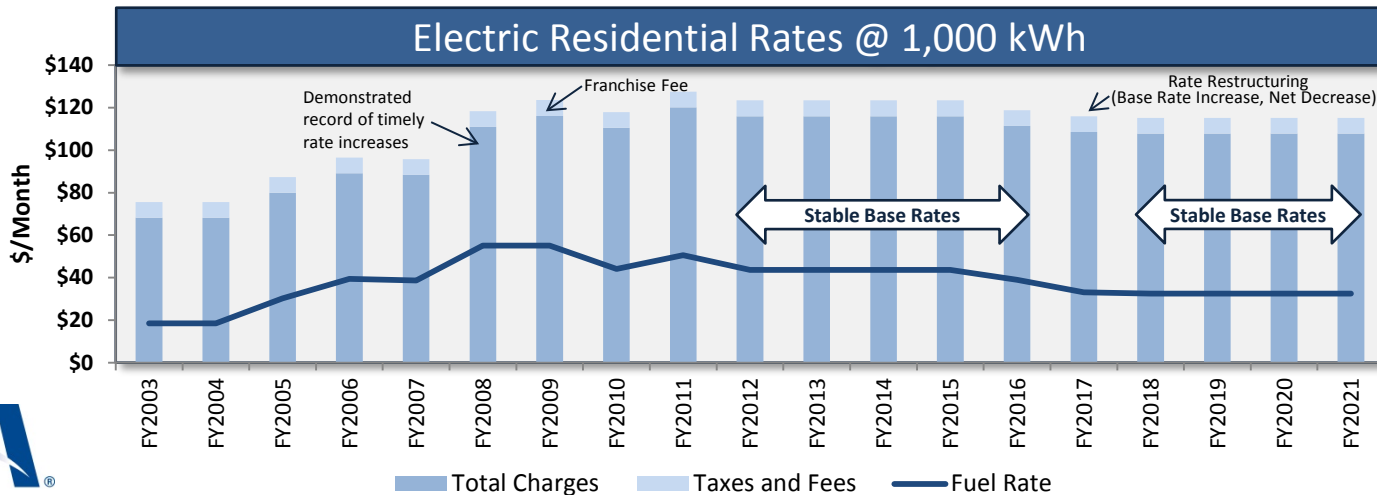
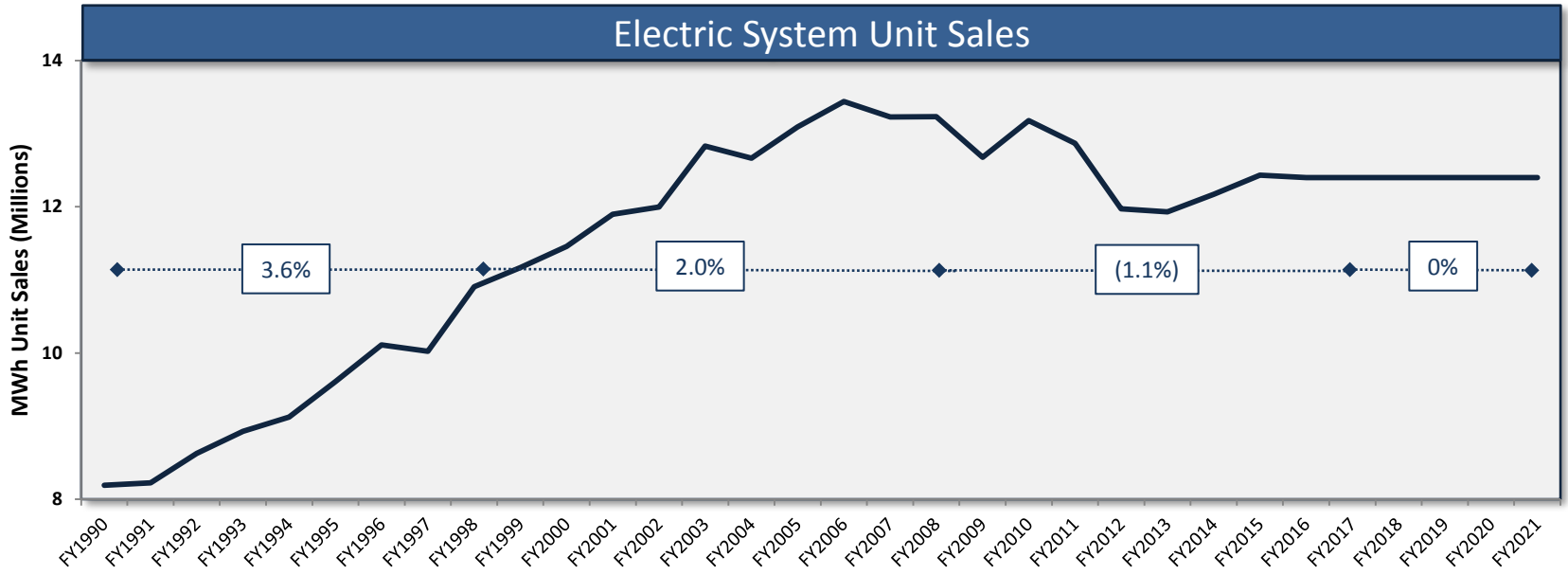
# FY2018 Budget: Customer Electric Bill by Expense Category



**Notes:**

1. Fuel includes Scherer transmission and capacity expenses. Fuel expense is \$455 million with a reduction of \$45 million from the Fuel Rate Stabilization Fund
2. SJRPP and Scherer non-fuel purchase power expenses included in Debt Service, Internal Capital and O&M
3. Government Transfers include City Contribution, COJ Public Service Tax, COJ Franchise Fee, State Gross Receipt Tax, and State and COJ Sales Tax (Commercial customers only)
4. O&M Salaries, Benefits, and Pension are net of capital
5. FY2018 O&M includes \$2M Natural Gas retail sale operations
6. Internal Capital Funds include JEA Electric System R&R and OCO, SJRPP R&R, and Scherer R&R, no new debt is required
7. Debt Service increase in FY2018 due to Advance Refunding

# Electric System Unit Sales and Rates



	<u>FY2016</u>	<u>FY2017F</u>	<u>FY2018B</u>	<u>FY2019</u>
<b><u>Variable Fuel Rate per MWh</u></b>				
<b>Fuel Rate Budgeted per \$/MWh</b>	<b>\$41.00</b>	<b>\$36.75</b>	<b>\$32.50</b>	<b>\$32.50</b>
<b>Reserve as a % of Target Expense</b>	<b>29%</b>	<b>20%</b>	<b>15%</b>	<b>12%</b>
<b>Annual Fuel Cost (millions)</b>	<b>\$397</b>	<b>\$448</b>	<b>\$443</b>	<b>\$435</b>

## Discussion and Analysis

- The Fuel Fund Rate Stabilization Reserve is currently at 20% of the historical maximum 12-month fuel expense
- Current projections are based on the NYMEX natural gas price forecasts and assume no major market disruption due to regulations

Note: Variable Fuel Rate decreased to \$32.50/MWh per Board approval in November 2016. New rate was made effective December 1, 2016.

# FY2018 Electric System Budget: Operating Expenses

(\$ in millions)	FY2017 Budget <sup>1</sup>	FY2018 Budget <sup>1</sup>	Variance	Explanation
<b>Salaries &amp; Benefits</b>	\$183.9*	\$186.4*	\$2.5	Step increases and market adjustments. Excludes new contract adjustments and related change in pension expense.
<b>Other Services</b>	101.4	109.1	7.7	Outages and Enterprise Asset Management
<b>Material &amp; Supplies</b>	15.9	15.9	-	
<b>Other</b>	12.8	15.3	2.5	Insurance premium increase
<b>Credits – Shared Services</b>	(49.2)	(52.5)	(3.3)	Water Billing Credit and Enterprise Asset Mgmt
<b>Credits – Capitalization</b>	(38.7)	(38.5)	0.2	
<b>Credits – Other</b>	(17.0)	(17.3)	(0.3)	
<b>Total</b>	<u>\$209.1</u>	<u>\$218.4</u>	<u>\$9.3</u>	

4.4%

## Key Strategic Issues Included in Budget

FY2017		FY2018	
Generating Unit Outages	8.0	Generating Unit Outages (NS 1&2, CTs)	14.1
Succession Planning Staffing Risks	2.6	Succession Planning Staffing Risks	2.6
Climate Change	1.0	Climate Change	1.0
Enterprise Asset Management	2.0	Enterprise Asset Management	5.0
Net Pension Increase	4.3	Net Pension Increase	*
Compensation	*	Compensation	*
<b>Total</b>	<u>\$17.9</u>	<b>Total</b>	<u>\$22.7</u>

<sup>1</sup>Excludes Customer Benefit, Environmental, and Retail Natural Gas



# Electric System: Capital Funding

No New Debt



FY2018 – Electric System Capital Budget: \$185 Million

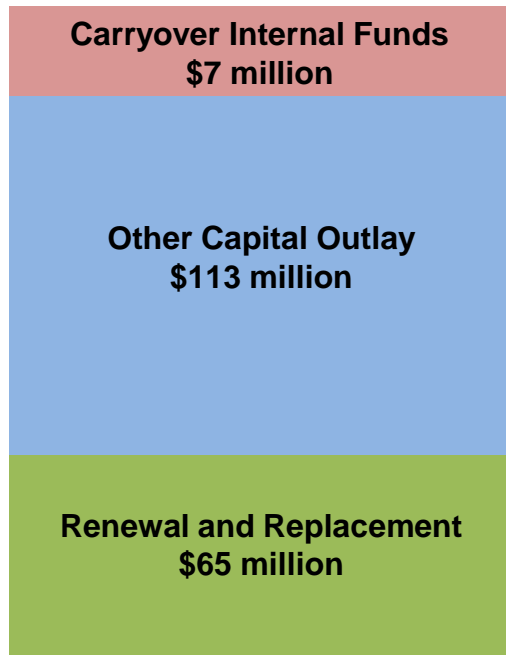
## System Maintenance: \$169 Million

- Renewal and Replacement
- Distribution
- Facilities, Fleet, Technology

## System Expansion: \$16 Million

- New or Expanded Generation
- New Transmission lines
- New or Expanded Substations

### Source of Capital Funding



### Discussion and Analysis

- FY2018 capital funding plan utilizes existing capital cash balances to fund the “long-term eligible funds” qualified projects, resulting in no new debt issuance for FY2018
- FY2017 capital plan budget was \$155 million, current forecast is \$147 million
- December 2016 rating agency FY2018 capital program was projected to be \$195 million

# FY2018 Electric System Budget: Debt Service

	<u>FY2017 Budget</u>	<u>FY2017 Forecast</u>	<u>FY2018 Budget</u>	<u>Budget Variance</u>	<u>Explanation</u>
<b>Debt Service – Principal</b>	\$90.0	\$129.9	<b>\$124.2</b>	\$34.2	Debt Restructuring
<b>Debt Service – Prepayment</b>	3.2	40.0	---	(3.2)	
<b>Debt Service – Interest</b>	<u>100.9</u>	<u>98.1</u>	<u><b>94.3</b></u>	<u>(6.6)</u>	Lower Debt Balance
<b>Total<sup>1</sup></b>	<u>\$194.1</u>	<u>\$268.0</u>	<u><b>\$218.5</b></u>	<u>\$24.4</u>	
<b>Debt Service Coverage</b>	2.5x	2.4x	<b>2.4x</b>	(0.1x)	
<b>Debt to Asset %</b>	64.0%	62.0%	<b>60.0%</b>	(4.0%)	Accelerated Debt Paydown
<b><u>Variable Rate Debt %</u></b>					
<b>Gross</b>	21.0%	22.0%	<b>23.0%</b>	2.0%	Paydown of Fixed Rate Debt
<b>Net of Swaps</b>	7.0%	7.0%	<b>7.0%</b>	---	
<b>Variable Interest Rate %</b>	3.0%	2.4%	<b>3.0%</b>	---	
<b>Liquidity – Days Cash<sup>2</sup></b>	213	215	<b>187</b>	(26)	Cash Used on Debt Paydown

<sup>1</sup> Includes scheduled interest and principal payments to bondholders, variable rate financing costs, and swap payments

<sup>2</sup> Includes Renewal and Replacement

# Agenda

**Strategic Issues and Risks**

**Key Assumptions**

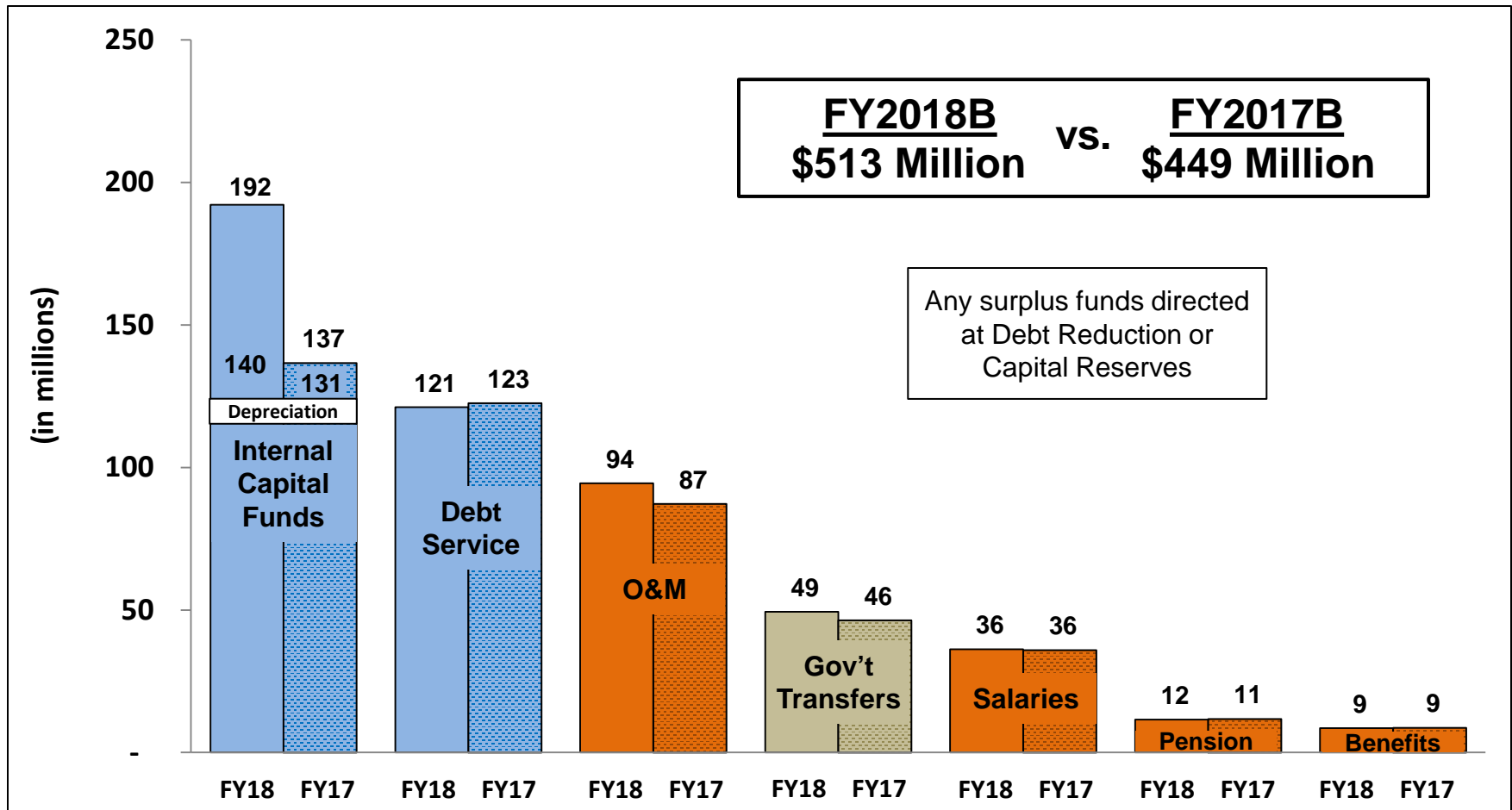
**Electric System Budget Assumptions**

**Water and Sewer System Budget Assumptions**

- ✓ **Customer Electric Bill by Expense Category**
- ✓ **Revenue Drivers**
- ✓ **Fuel Rate**
- ✓ **Operating Expenses**
- ✓ **Capital Funding - Debt Service, Oper. Capital Outlay and Renewal & Replacement**
- ✓ **Debt Service**

**Government Transfers via the JEA Bill**

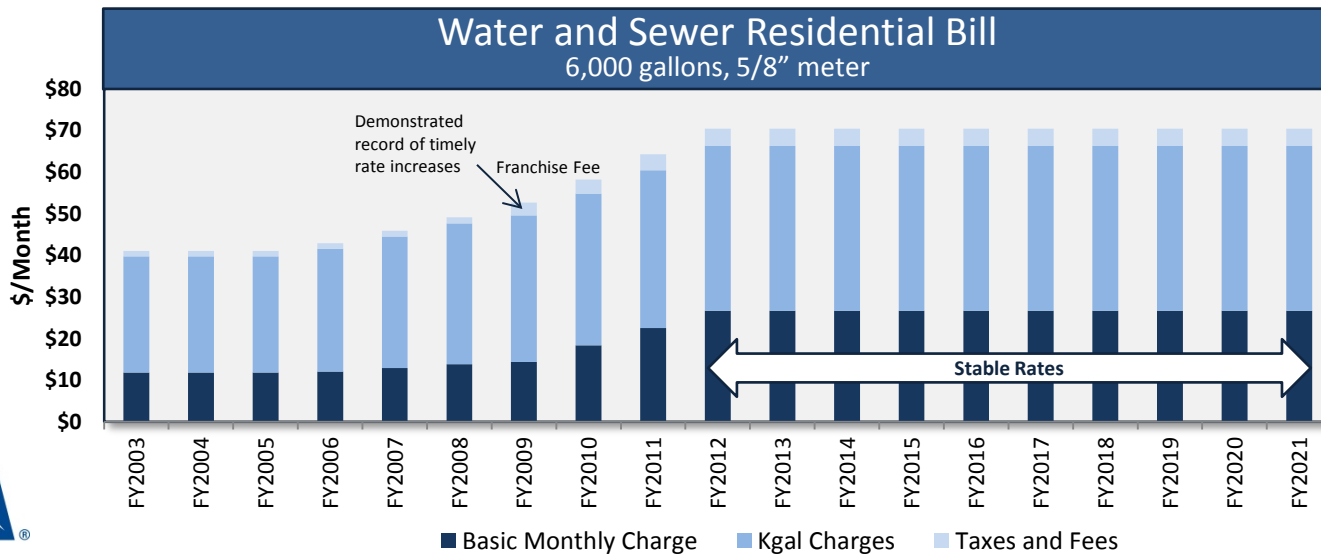
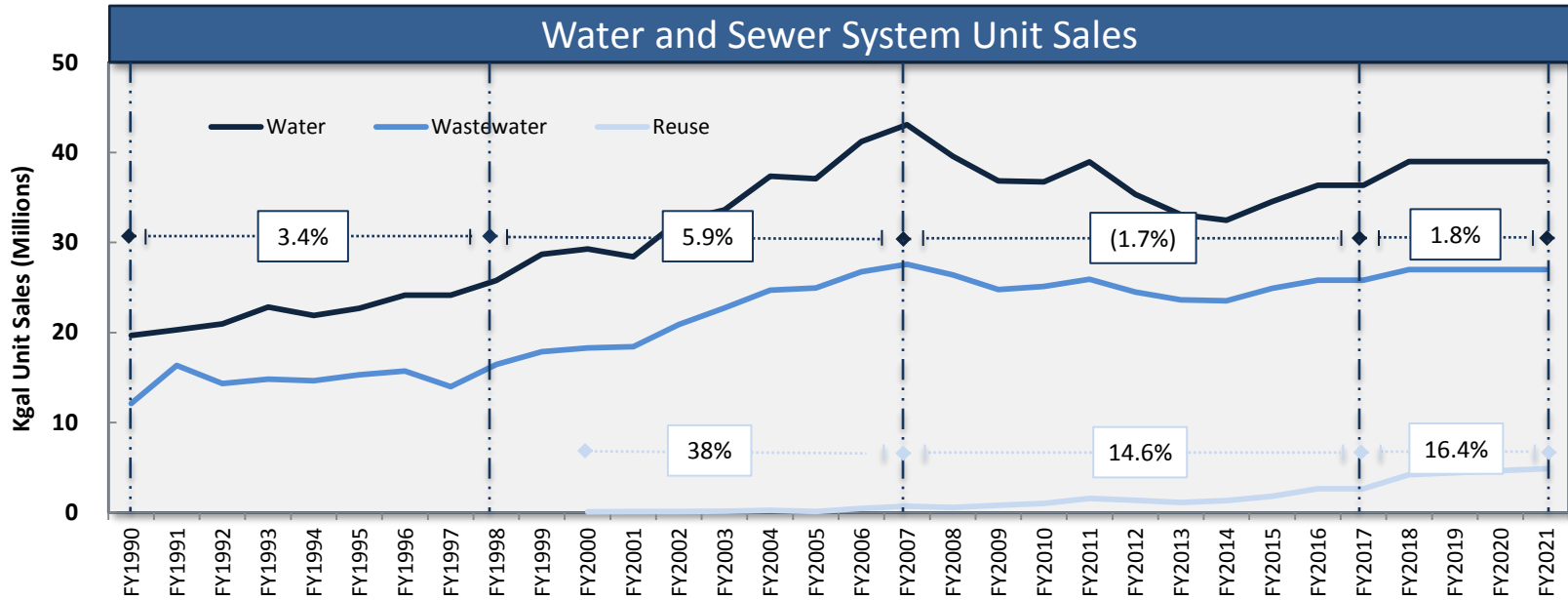
# FY2018 Budget: Customer Water and Sewer Bill by Expense Category



**Notes:**

1. Government Transfers include City Contribution, COJ Public Service Tax, and COJ Franchise Fee
2. O&M Salaries, Benefits, and Pension are net of capital
3. The FY2018 capital program is funded by Internal Capital, no new debt is required
4. FY2018 Debt Service increase reflects higher principal payments
5. Internal capital funds for FY2018 are greater than annual depreciation but less than the annual capital plan for FY2018. The capital budget for FY2018 is estimated at \$205m

# Water & Sewer System Unit Sales and Rates



# FY2018 Water and Sewer System Budget: Operating Expenses

(\$ in millions)	FY2017 Budget <sup>1</sup>	FY2018 Budget <sup>1</sup>	Variance	Explanation
<b>Salaries &amp; Benefits</b>	\$67.8*	\$68.6*	\$0.8	Employees for new plant and system expansion. Excludes new contract adjustments and related change in pension expense.
<b>Other Services</b>	25.2	27.2	2.0	Storm generators and sewer resiliency
<b>Material &amp; Supplies</b>	13.2	13.2	-	
<b>Shared Services</b>	49.1	52.8	3.7	Insurance premium increase and Enterprise Asset Management
<b>Other</b>	3.4	3.4	-	
<b>Credits – Capitalization</b>	(16.5)	(16.8)	(0.3)	
<b>Credits – Fuel Handling</b>	(0.5)	(0.5)	-	
<b>Total</b>	<u>\$141.7</u>	<u>\$147.9</u>	<u>\$6.2</u>	

4.4%

Key Strategic Issues <u>Included</u> in Budget			
FY2017		FY2018	
Water Purification	\$1.0	Water Purification	\$1.0
Succession Planning Staffing Risks	1.0	Succession Planning Staffing Risks	0.5
		Enterprise Asset Management	2.0
		Storm Generators	1.5
		Sewer Resiliency	0.5
Net Pension Increase	1.3	Net Pension Increase	*
Compensation	*	Compensation	*
<b>Total</b>	<u><b>\$3.3</b></u>	<b>Total</b>	<u><b>\$5.5</b></u>

<sup>1</sup>Excludes Customer Benefit and Environmental

# Water and Sewer System: Capital Funding

No New Debt



FY2018 – Water and Sewer System Capital Budget: \$205 Million

## Environmental: \$13 Million

- BMAP\*/ TMDL\*/ Reclaim
- Total Water Management Plan
- Major Environmental Initiatives
- Support COJ Septic Tank Phase-Out

- Basin Management Action Plan
- Total Maximum Daily Limit of Nitrogen

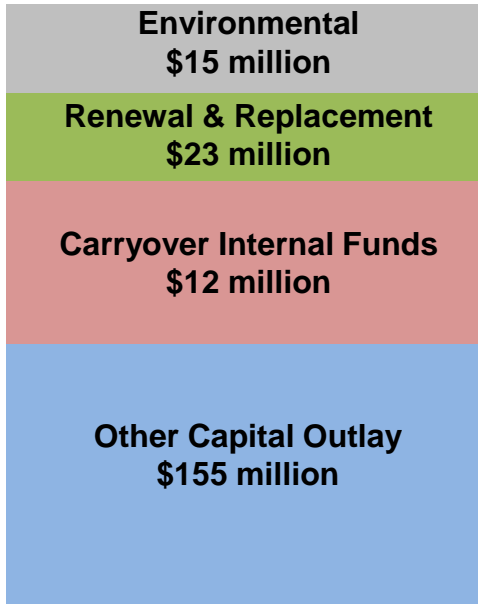
## System Maintenance: \$122 Million

- Renewal and Replacement
- Distribution
- Facilities, Fleet, Technology

## System Expansion: \$70 Million

- New or Expanded Treatment
- New Transmission lines
- New or Expanded Master Pump Stations

### Source of Capital Funding



### Discussion and Analysis

- FY2018 capital funding plan utilizes existing capital cash balances to fund the “long-term eligible funds” qualified projects, resulting in no new debt issuance for FY2018
- FY2017 capital plan budget was \$205 million, current forecast is \$212 million
- December 2016 rating agency FY2018 capital program was projected to be \$200 million

# FY2018 Water and Sewer System Budget: Debt Service

	<u>FY2017 Budget</u>	<u>FY2017 Forecast</u>	<u>FY2018 Budget</u>	<u>Budget Variance</u>	<u>Explanation</u>
<b>Debt Service - Principal</b>	\$51.0	\$51.0	<b>\$51.7</b>	\$0.7	
<b>Debt Service - Prepayment</b>	---	2.9	---	---	
<b>Debt Service - Interest</b>	<u>71.6</u>	<u>70.4</u>	<u><b>69.4</b></u>	<u>(2.2)</u>	Lower Debt Balance
<b>Total<sup>1</sup></b>	<u>\$122.6</u>	<u>\$124.3</u>	<u><b>\$121.1</b></u>	<u>(\$1.5)</u>	
<b>Debt Service Coverage</b>	2.2x	2.5x	<b>2.6x</b>	0.4x	
<b>Debt to Asset %</b>	50.0%	51.0%	<b>48.0%</b>	(2.0%)	
<b>Variable Rate Debt %</b>					
<b>Gross</b>	18.0%	18.0%	<b>18.0%</b>	---	
<b>Net of Swaps</b>	10.0%	10.0%	<b>10.0%</b>	---	
<b>Variable Interest Rate %</b>	3.0%	2.4%	<b>3.0%</b>	---	
<b>Liquidity – Days Cash<sup>2</sup></b>	396	405	<b>363</b>	(33)	Capital Expenses Internally Funded

<sup>1</sup> Includes scheduled interest and principal payments to bondholders, variable rate financing costs, swap payments, and Revolving Credit Agreement payments

<sup>2</sup> Includes Renewal and Replacement



**Strategic Issues and Risks**

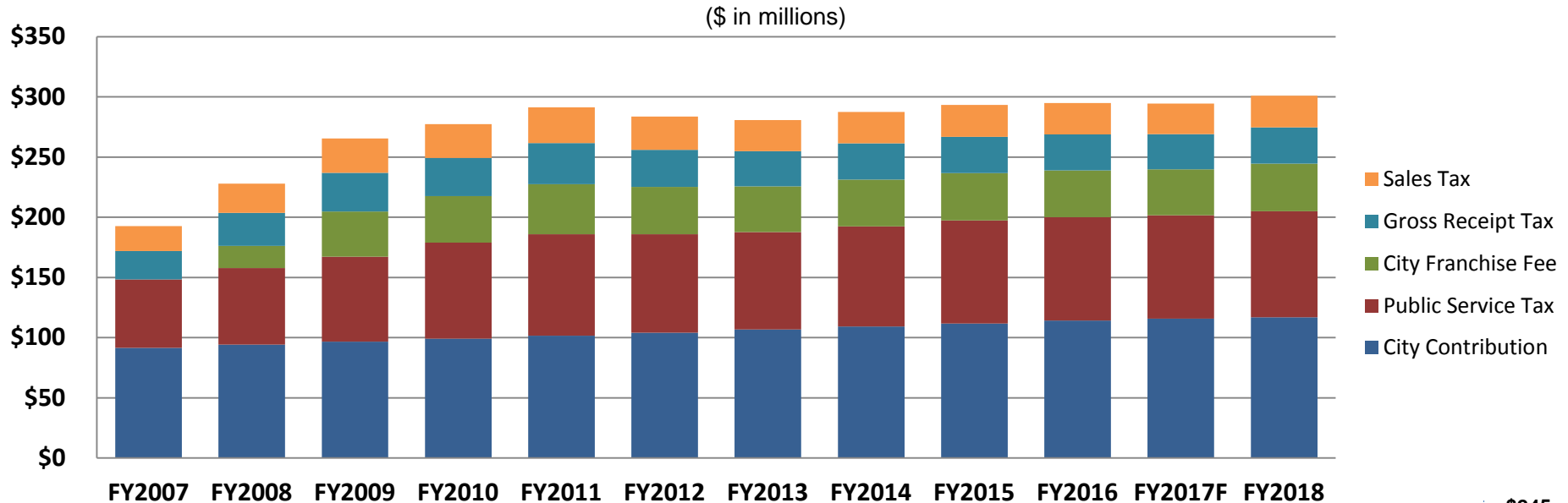
**Key Assumptions**

**Electric System Budget Assumptions**

**Water and Sewer System Budget Assumptions**

**Government Transfers via the JEA Bill**

# Government Transfers via the JEA Bill



Description	Paid To	FY2007	FY2008	FY2009	FY2014	FY2015	FY2016	FY2017F	FY2018
City Contribution	COJ	\$91.4	\$94.2	\$96.7	\$109.2	\$111.7	\$114.2	\$115.8	\$117.0
Public Service Tax	COJ	56.9	63.6	70.5	83.1	85.6	85.8	85.8	88.1
City Franchise Fee	COJ	-	18.3	37.5	39.0	39.4	38.9	38.2	39.4
Gross Receipt Tax	State	23.7	27.6	32.1	30.2	30.2	29.8	29.2	30.2
Sales Tax	State and COJ	20.6	24.1	28.5	26.1	26.4	26.0	25.5	26.3
<b>Total</b>		<b>\$192.6</b>	<b>\$227.8</b>	<b>\$265.3</b>	<b>\$287.6</b>	<b>\$293.3</b>	<b>\$294.9</b>	<b>\$294.5</b>	<b>\$301.0</b>
Percent increase from FY2007			18%	38%	49%	52%	53%	53%	56%

\$240  
\$245 COJ

## Discussion and Analysis

- JEA transfers to the City of Jacksonville have increased to \$245 million



# Board Review and Approval Schedule: FY2018 Budget and Rate Discussion

Date	Meeting	Activity / Objective
March 13, 2017	Finance & Audit Committee	Review Budget and Rate Assumptions
March 21, 2017	Board	Finance and Audit Committee Report
May 8, 2017	Finance & Audit Committee	Final review of FY2018 Budget
May 16, 2017	Board	Budget Review with full Board
June 20, 2017	Board	Board to approve the FY2017 Budget
July 1, 2017	-----	Transmit JEA Board approved Budget with cover letter to City Council President

## Finance and Audit Committee Action

- Provide feedback and direction regarding the key strategic issues and risks for the FY2018 Budget specifically covering:
  - Revenue
  - O&M Expense Levels
  - Interest Rates and Debt Structure
  - Financial Metrics
  - Workforce Readiness and Succession Planning

## Staff

- Prepare Draft Budget, as well as related agenda items for review at the May Finance and Audit Committee meeting
- Prepare Draft Budget Summary for presentation at the May Board meeting
- Prepare budget package for approval at the June Board meeting
- Begin communication process with the Council Auditor
- Begin communication plan for other key stakeholders

II. B.

JEA Annual Disclosure Policy Report



Building Community

**AGENDA ITEM SUMMARY**

February 22, 2017

<b>SUBJECT:</b>	<b>JEA ANNUAL DISCLOSURE POLICY REPORT</b>
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<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** JEA's Disclosure Policies and Procedures require that the Chief Financial Officer shall provide the Finance and Audit Committee each year a report regarding compliance with those policies, to report any issues or problems complying with those policies in the preceding twelve-month period and to present recommendations, if any, for changes to those policies.

**Significance:** High. JEA is responsible for the content of its market disclosures and is subject to the provisions of the federal securities laws prohibiting making material misstatements or omissions of material facts if necessary to avoid a misleading statement in its disclosure documents.

**Effect:** To support continued compliance with JEA's continuing disclosure agreements and federal securities antifraud laws through adherence with JEA's Disclosure Policies and Procedures.

**Cost or Benefit:** To reduce potential exposure to civil or criminal liability that could result from non-compliance with JEA's continuing disclosure agreements and federal securities laws.

**Recommended Board action:** No Board action is required. For information only.

**For additional information, contact:** Joe Orfano, Treasurer, 665-4541

Submitted by: PEM/ MHD/ JEO/ RLH

<b>MISSION</b>  Energizing our community through high-value energy and water solutions.	<b>VISION</b>  JEA is a premier service provider, valued asset and vital partner in advancing our community.	<b>VALUES</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Service</li><li>• Growth<sup>2</sup></li><li>• Accountability</li><li>• Integrity</li></ul>
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**Commitments to Action**

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**



**INTER-OFFICE MEMORANDUM**

February 22, 2017

**SUBJECT: JEA ANNUAL DISCLOSURE POLICY REPORT**

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**FROM:** Paul E. McElroy, Managing Director/CEO

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**TO:** JEA Finance and Audit Committee

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Kelly Flanagan, Chair  
Tom Petway  
Ed Burr  
Husein Cumber

**BACKGROUND:**

Federal securities laws require that disclosure documents of issuers such as JEA not contain an “untrue statement of a material fact” or omit a “material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading.” “Materiality” under the federal securities laws means whether there is a substantial likelihood that a reasonable investor would consider the facts at issue to be important to an investment decision.

The SEC has further stated that public entities that issue securities are primarily liable for the content of their disclosure documents and are subject to federal securities laws prohibiting false and misleading information in their disclosure documents. Under certain federal antifraud laws, it is not necessary that an entity act recklessly or with intent or knowledge of wrongdoing; an entity may also be found liable even if found to be negligent.

In early 2015, staff worked with JEA’s bond counsel firm, Nixon Peabody LLP, to document JEA’s ongoing processes and procedures for monitoring and assessing operational, financial, regulatory, governmental and other developments within and outside JEA that need to be considered when preparing information that could reasonably be expected to find its way to investors, potential investors or other stakeholders in JEA securities. Nixon Peabody provided input from experience they gained through working with other public entities. Lessons learned from those experiences and industry best practices were combined with JEA’s procedures and specific requirements to formulate the JEA Disclosure Policies and Procedures (“Disclosure Policies”).

**DISCUSSION:**

In March 2015, Nixon Peabody conducted disclosure training sessions with the Board, senior leadership team and staff involved with the preparation and review of JEA’s disclosure documents. Staff presented the Board draft revised Disclosure Policies for information at its April 21, 2015 meeting, and on May 19, 2015, the Board approved those Disclosure Policies. Those Board training materials and the Disclosure Policies are included in the orientation materials for all new members.

Among actions required under the Disclosure Policies, the Chief Financial Officer shall provide a report to the Finance and Audit Committee each year, at the meeting of the Finance and Audit Committee immediately preceding the public dissemination of the Annual Disclosure Reports, regarding compliance with the Disclosure Policies during the preceding twelve month period. This report shall (i) state whether the Annual Disclosure Reports for the current year are being prepared in compliance with these

Disclosure Policies and whether all disclosure documents prepared during the prior twelve month period were prepared in accordance with the Disclosure Policies, (ii) describe any issues or problems which arose in connection with compliance with the Disclosure Policies during such period and (iii) present any recommendations for changes to the Disclosure Policies.

Staff is in the process of preparing the Annual Disclosure Reports for the fiscal year ended September 30, 2016, and plans to seek the Board's approval and authorization to disseminate those reports at its April 18, 2017 meeting. In accordance with past practice and prior Boards' requests, staff intends to provide Board members with substantially final drafts for their review at the March 21, 2017 Board meeting.

**RECOMMENDATION:**

No Board action is required. For information only.

---

Paul E. McElroy, Managing Director/CEO

PEM/MHD/JEO/RLH



To: Finance & Audit Committee  
From: Melissa H. Dykes, Chief Financial Officer  
Date: February 22, 2017  
Re: Report delivered pursuant to Section 7.5 of JEA's Disclosure Policies and Procedures

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In accordance with Section 7.5 of JEA's Disclosure Policies and Procedures, dated May 19, 2015 (the "Disclosure Policies"), which requires the Chief Financial Officer to report to the Finance and Audit Committee regarding compliance with the Disclosure Policies during the preceding twelve-month period, I hereby report the following:

1. All Annual Disclosure Reports and Disclosure Documents prepared during the prior twelve-month period were prepared in accordance with the Disclosure Policies.
2. No issues or problems have arisen in connection with compliance with the Disclosure Policies during the prior twelve-month period.
3. At this time, there are no recommendations to make changes to the Disclosure Policies. A copy of the Disclosure Policies is attached to this report.
4. A copy of the Disclosure Policies has been distributed to all Board members and to all Finance Staff and Staff participating in the disclosure process.
5. A printed copy of each final Annual Disclosure Report for fiscal year ended September 30, 2015 was provided to all members of the JEA Board at their offices on T-8 of the JEA tower on April 27, 2016.
6. The Annual Disclosure Reports for the fiscal year ended September 30, 2016 are being prepared in compliance with the Disclosure Policies. Informational copies of the current drafts of the Annual Disclosure Reports are available to any Finance and Audit Committee member who requests copies of such draft Reports. Near-final drafts of the Annual Disclosure Reports will be provided to Board members at the March 21, 2017 Board meeting with a request to approve the documents at the April 18, 2017 Board meeting.

II. C.

Ernst & Young FY2016 Revised Management Letter



Building Community

### AGENDA ITEM SUMMARY

February 27, 2017

<b>SUBJECT:</b>	<b>ERNST &amp; YOUNG FY2016 REVISED MANAGEMENT LETTER</b>
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<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** Auditing standards require the auditors to communicate certain matters to the Governing Board that may assist the Board in overseeing management’s financial reporting process. Representatives from Ernst & Young, LLP (E&Y) attended the December 1, 2016 Finance and Audit Committee meeting to discuss FY2016 audited results. E&Y presented an Audit Results book, which summarized the results of the audit and also contained communications required by auditing professional standards, including a Management Letter. There were no Management Letter comments related to FY2016; however, there were two prior year’s comments that were in the process of being remediated at the end of the fiscal year that were inadvertently omitted from the report.

**Significance:** Auditing standards require the auditors to communicate certain matters to the Governing Board that may assist the Board in overseeing management’s financial reporting process.

**Effect:** Board oversight is a critical component of the financial reporting provided to investors, ultimately lowering JEA’s borrowing costs.

**Cost or Benefit:** See effect above for benefits.

**Recommended Board action:** No action by the Committee is required. This item is submitted for information only.

**For additional information, contact:** Janice Nelson

Submitted by: PEM/ MHD/ JRN

<b>MISSION</b>  Energizing our community through high-value energy and water solutions.	<b>VISION</b>  JEA is a premier service provider, valued asset and vital partner in advancing our community.	<b>VALUES</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Service</li><li>• Growth<sup>2</sup></li><li>• Accountability</li><li>• Integrity</li></ul>
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#### Commitments to Action

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**



**INTER-OFFICE MEMORANDUM**

February 27, 2017

**SUBJECT:** Ernst & Young FY2016 Revised Management Letter

---

**FROM:** Paul McElroy, Managing Director/CEO

---

**TO:** JEA Finance and Audit Committee

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Kelly Flanagan, Chair  
Tom Petway  
Ed Burr  
Husein Cumber

**BACKGROUND:**

Auditing standards require the auditors to communicate certain matters to the Governing Board that may assist the Board in overseeing management's financial reporting process. Representatives from Ernst & Young, LLP (E&Y) attended the December 1, 2016 Finance and Audit Committee meeting to discuss FY2016 audited results. E&Y presented an Audit Results book, which summarized the results of the audit and also contained communications required by auditing professional standards, including a Management Letter. There were no Management Letter comments related to FY2016; however, there were two prior year's comments that were in the process of being remediated at the end of the fiscal year that were inadvertently omitted from the report.

**DISCUSSION:**

Attached is the revised Management Letter from E&Y. Also attached is management's response to the recommendations. The management responses have been reviewed with E&Y's staff and they are in agreement with the recommended action plans. E&Y is in the process of testing the new processes that will be implemented by JEA and will complete the testing as part of the review of IT systems during the fiscal year 2017 audit.

**RECOMMENDATION:**

No action by the Committee is required. This item is submitted for information only.

---

Paul E. McElroy, Managing Director/CEO

PEM/MHD/JRN

## Management Letter on Internal Control and State Reporting Requirements

The Board of Directors  
JEA  
Jacksonville, Florida

In planning and performing our audit of the financial statements of JEA for the fiscal year ended September 30, 2016, in accordance with auditing standards generally accepted in the United States, we considered JEA's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purposes of expressing our opinion on the financial statements, but not for the procedures for the purpose of expressing an opinion on the effectiveness of JEA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatement on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected, on a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control that we consider to be material weaknesses, as defined above.

### **Other Required Disclosures**

#### ***Report on the Financial Statements***

We have audited the United States the accompanying basic financial statements of JEA, which comprise the statement of net position as of September 30, 2016, and the related statements of revenues, expenses and changes in net position and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report, with an unmodified opinion thereon, dated December 1, 2016.

#### ***Auditor's Responsibility***

We conducted our audit in accordance with the auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and Chapter 10.550, *Rules of the Auditor General*.

#### ***Other Reports***

We have issued our Report of Independent Certified Public Accountants on Internal Control Over Financial Reporting and Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance With *Government Auditing Standards* and our Report of Independent Certified Public Accountants on Compliance on an examination conducted in accordance with AICPA Professional Standards, Section 601, regarding compliance requirements in accordance with Chapter 10.550, *Rules of the Auditor General* (collectively, the Reports). Disclosures in those Reports, which are dated December 1, 2016, should be considered in conjunction with this management letter.

### ***Prior Audit Findings***

Section 10.554(1)(i)1., *Rules of the Auditor General*, requires that we determined whether or not corrective actions have been taken to address findings and recommendations made in the preceding annual and financial audit report. The current status of our prior year findings are as follows:

Finding No. 2015-01 Change management related to IT General Controls – in process of remediation.

Finding No. 2015-02 Logical access related to IT General Controls – in process of remediation.

### ***Official Title and Legal Authority***

Section 10.554(1)(i)4., *Rules of the Auditor General*, requires that the name or official title and legal authority for the primary government and each component unit of the reporting entity be disclosed in this management letter, unless disclosed in the notes to the financial statements. JEA has included such disclosures in the notes to the financial statements.

### ***Financial Condition***

Section 10.554(1)(i)5.a., *Rules of the Auditor General*, requires that we report the result of our determination as to whether or not JEA has met one or more of the conditions described in Section 218.503(1), Florida Statutes, and identification of the specific condition(s) met.

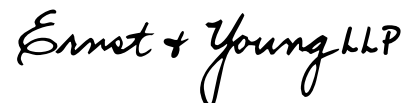
Pursuant to Sections 10.554(1)(i)5.c. and 10.556(8), *Rules of the Auditor General*, we applied financial condition assessment procedures that were agreed to by management of JEA. See our Report of Certified Public Accountants on Applying Agreed-Upon Procedures dated December 1, 2016, for our procedures and findings.

### ***Other Matters***

Section 10.554(1)(i)2., *Rules of the Auditor General*, requires that we address in the management letter any recommendations to improve financial management. In connection with our audit, we did not have any such recommendations. Section 10.554(i)3., *Rules of the Auditor General*, requires that we address noncompliance with provisions of contracts or grant agreement, or abuse, that have covered, or are likely to have occurred, that have an effect in the financial statements that is less than material but which warrants the attention of those charged with governance. See our Reports identified under “Other Reports” section above.

### ***Purpose of This Letter***

Our management letter is intended solely for the information and use of the Florida Auditor General, the Board of Directors of JEA, and management is not intended to be and should not be used by anyone other than specified parties.



December 1, 2016

Management Responses

Management Letter for the year ended September 30, 2016

Observation	Recommendation	Management Response
<p><b>2015-01 Change Management Related to IT General Controls</b>            Certain users had the ability to migrate changes to production for the Oracle ERP and no mitigating control was in place for a periodic review of changes performed by management. This present a segregation of duties issue, as the users with knowledge of the password on both the development and production environments can circumvent the change management process and directly develop and apply changes in production.</p> <p>There is a risk that individuals that have the ability to migrate changes to production could also develop a change that circumvents the change management process without monitoring control in place for these changes to be subject to a formal review.</p>	<p>It is recommended that either a review be performed by appropriately configuring and utilizing the Tripwire agent at a frequency agreed upon by management to include all changes migrated to production, or remove the ability to develop changes for those users who have the access to migrate changes to production.</p>	<p>JEA implemented two monitoring control processes related to Tripwire and Change Management (CM) to mitigate the risk of unauthorized changes in production:</p> <ol style="list-style-type: none"> <li>1) <b>Tripwire to CM Process Review.</b> The Tripwire agent generates a report of all changes migrated into production. Information Security monitors and generates a ticket to the Oracle ERP to perform a review and document the corresponding approved CM ticket number.</li> <li>2) <b>CM to Tripwire Process Review.</b> JEA has developed a reconciliation review process wherein all Oracle ERP CM's are validated back to a Tripwire Ticket, with appropriate reviews and actions.</li> </ol>
<p><b>2015-02 Logical Access Related to IT General Controls</b>            We identified during the fiscal year 2015 audit that a user's Oracle application account was not disabled subsequent to their termination date. This presents a risk that the user's account could be utilized to access the Oracle application and perform activities that go undetected.</p>	<p>While a user access review is currently utilized, it is recommended that a more frequent periodic user access review be performed at a frequency agreed upon by management to include all users with access to the Oracle application. It is also recommended the review validate each user is an active employee and each user's access rights within the Oracle application are appropriate.</p>	<p>In accordance with our Access Administration Corporate Policy TS B0010 IS 003, the Oracle Application attestations will be held quarterly. As such, resource owners will review the users assigned to their responsibilities, validating that each user is an active employee and access rights are still appropriate. Management will work with resource owners on the accountability of complete and accurate attestations.</p>

II. D. 1.

Quarterly ERM/Audit Update



# Audit Services Q1 FY17 Report

Steve Tuten - Director, Audit Services

# Audit Services Q1 FY17 Report – Table of Contents

<u>Topic</u>	<u>Pages</u>
• Internal Audit	3-4
• Enterprise Risk Management (ERM)	5-12
• Ethics Investigations & Audit	13-16

- **Senior Auditor Open Position** - We recently closed our third recruitment posting without finding a satisfactory candidate. Recently, there has not been as much of the usual talent movement between local companies. We will continue to use the Randstad contractor (Chris Page) for the short term.
- **FY17 Internal Audit Plan** - We are slightly behind schedule, due primarily to the open position. The current timeline for the FY17 Internal Audit Plan is shown on page 4.
- **Open Audit and Investigation Report Issues** - As of 12/31/16, there were 33 open issues requiring management's corrective action plans. This represents an increase of five open items since our last report.

# FY17 Internal Audit Plan – Schedule

Audit/Project	Auditor-in-Charge	Status	FY 2017 Hours			First Draft Report			Comments	Final Draft Report Date	Audit Report Rating	2017 Audit Timeline				
			Budgeted Hours <i>[adjusted]</i>	Actual Hours	Will Meet/Met Budget	Audit Estimate due date <i>(italics if updated)</i>	Actual Date	Will Meet/Met Due Date				Oct	Nov	Dec	Jan	Feb
2016 Distribution, Development & Joint Projects <i>(400 hrs. total)</i>	Troy England (TE)	Second Draft Issued	60	257	●	8/29/2016	1/6/2017	●	Exceeded budget due to the time it's taken to thoroughly go through each project and grasp the processes involved.	TBD	Satisfactory					
2016 Facilities Management <i>(375 hrs. total - 116 hrs. in FY16)</i>	David Arnold (DA) / Chris Page (CP)	Final Draft Issued	259	188	●	<i>11/7/2016 (1)</i>	12/2/2016	●	Audit Estimate updated due to Call Center work during Hurricane Matthew. Exceeded budget due to issues related to ADA. Chris Page hrs. not included in calculation.	1/17/2017	Satisfactory					
2016 System Protection & Controls <i>(350 hrs. total - 191 hrs. in FY16)</i>	Laurie Gaughan (LG)	Final Draft Issued	159	155	●	<i>11/8/2016 (1)</i>	11/8/2016	●	Audit Estimate updated due to Call Center work during Hurricane Matthew	11/29/2016	Satisfactory					
Information Security <i>(FY16 - 60hrs. / FY17 566 hrs.)</i>	Rashid Brittain (RB)	Testing	500	432	●	<i>2/21/2017 (1)</i>	TBD	●	Audit Estimate updated due to Call Center work during Hurricane Matthew. Initial Workpaper review has started, very complex audit with many issues.	TBD						
TEA Audit	LG	Completed	100	99	●	No Report	N/A	N/A	Audit conducted 11/4-18/16. Nebraska Public Power District (NPPD) led audit.	N/A	Final report to be issued by NPPD.					
JEA & SJRPP FY2016 Performance Pay Audit	TE	Completed	200	79	●	11/22/2016 (JEA)	11/17/2016 (SJRPP) 11/22/2016 (JEA)	●	Memos were issued for JEA and SJRPP Performance Pay reviews.	11/17/2016 (SJRPP) 11/22/2016 (JEA)	-					
Real Estate Services & Revenue Contracts	CP / DA	First Draft Issued	350	91	●	1/23/2017	2/10/2017	●	Hours for Randstad resource (CP) are not tracked on this spreadsheet.	TBD	Satisfactory					
SJRPP Enviro Engineering & Preventive Maintenance	LG	Reporting	350	270	●	2/28/2017	TBD	●	Workpaper review is completed. First draft report is projected to be issued by due date.							
Security	DA / RB	Testing	DA - 375 RB - 175	DA - 231 RB - 100	●	2/28/2017	TBD	●	Initial workpaper review has started, but audit estimated due date will not be met.							
W/Ww Reuse & Delivery	TE	Testing	440	183	●	4/16/2017	TBD	●								
Electric Production CT Operations	LG	Planning	400	2	●			N/A								
FY2017 Action Plan Follow-Up	All Staff	Ongoing	400	135	●			●								

**Notes:**

(1) Updated due to Hurricane Matthew call center duties.

●	> 10% variance in hours from estimate > 10 workdays from estimate.
●	Variance within 10% of hours or 10 workdays from estimate.
●	No negative variance in hours or days.
N/A	Not Applicable or no data.

Completed Audit
In-Progress Audit
Scheduled Audit
Pending Audit
Administrative



# Enterprise Risk Management (ERM) Highlights

- **Updated Total Risk Scores** - The following risk scores have been adjusted to reflect the certainty of required compliance and/or changes in the estimated impact/cost:
  - **Effluent Guidelines** – Score decreased from a 4 impact/5 likelihood to a 3 impact/5 likelihood to reflect the decrease in projected cost for compliance.
  - **Sanitary Sewer Overflows (SSOs)** – Score increased from a 2 impact/4 likelihood to a 3 impact/4 likelihood, driven by potential changes in weather patterns and the potential for more stringent state reporting requirements and operating standards. Increased investment in our infrastructure has reduced the likelihood of a significant SSO event.
- **Clean Power Plan (CPP)**
  - The CPP risk is being reassessed due to political changes at the federal government/regulatory agency levels. These may add uncertainty to the CPP requirements, such as less stringent standards and/or extended timeframes for compliance. Current mitigations focus on monitoring CPP changes to reassess impact and requirements.

## ERM Highlights (cont.)

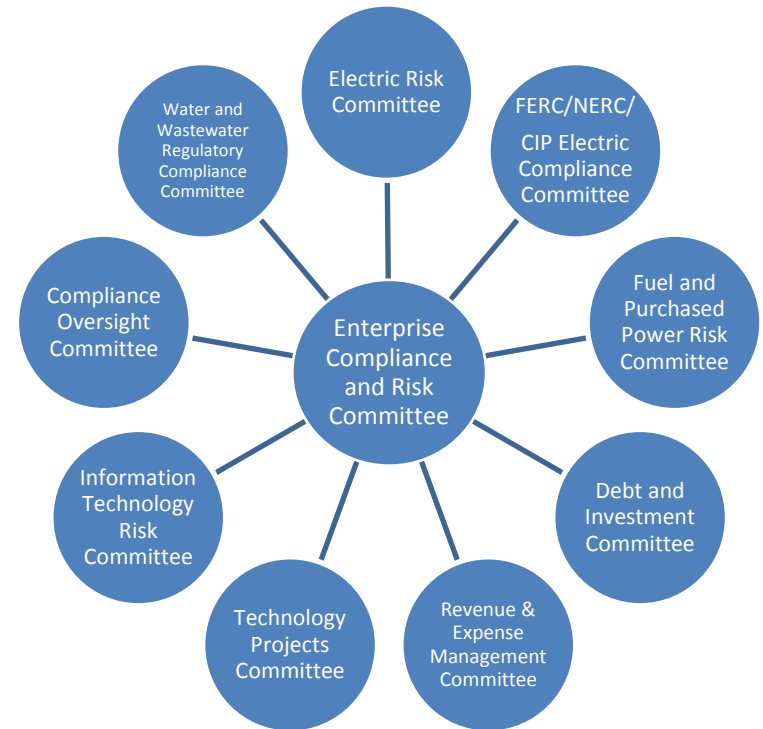
- **Water Quality Risk** - Current efforts focus on ensuring compliance with current and potential additional regulatory requirements including, but not limited to increased monitoring, and upgrading infrastructure assets. The risk and mitigation efforts have been expanded to address increased public and media awareness of water quality issues.
- **Business Unit Risk Assessments** – Continuing to better align business processes with top corporate risk mitigations efforts, as well as identify/manage risks that may negatively impact business objectives. Eleven (11) assessments completed to date, with eight (8) in progress , and seven (7) additional areas planned for FY17.
- **Training** – The latest iteration of ERM training is soon to be available to all appointed employees and is expected to further enhance JEA’s overall risk management culture, risk identification/mitigation skills, and interdepartmental synergy.
  - Since the September, 2016 rollout, 75 employees (40% of Directors/Managers) have attended the class. The training has been well received and appears to be meeting its objectives.

# ERM Committee Structure

- **Purpose** - JEA's ERM program identifies, assesses, measures, monitors and actively manages risk, including mitigation strategies and actions. Top corporate risks are reviewed monthly by the Enterprise Compliance & Risk Committee (ECRC) & quarterly with the Board.

- **ECRC & Subcommittees**

- Electric Risk
- FERC/NERC/CIP Electric Compliance
- Fuel and Purchased Power
- Debt and Investment
- Revenue and Expense Management
- Technology Projects
- Information Technology Risk
- Compliance Oversight
- Water and Wastewater Regulatory Compliance



# ERM Corporate Risk Heat Map

**Top Corporate Risks**  
**Tier 1 (See p. 9)**                      **Score**  
 10-25  
**Tier 2 (See p. 10)**                      5-9  
**Tier 3 (See p. 11)**                      1-4

**Impact x  
 Likelihood  
 Score**

<b>Likelihood</b>	Almost Certain >90%	<b>5</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	15-25	<b>Red</b>
	Likely 65-90%	<b>4</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>20</b>	10-12	<b>Orange</b>
	Possible 35-65%	<b>3</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>12</b>	<b>15</b>	8-9	<b>Yellow</b>
	Unlikely 5-35%	<b>2</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>	4-6	<b>Light Green</b>
	Rare <5%	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	1-3	<b>Dark Green</b>
			<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		
			Minor	Moderate	Significant	Major	Severe		
<b>Impact</b>									

\*The risk score is a factor of the risk impact x likelihood.





# ERM – Tier 1 Top Corporate Risk Trends

## Trends as of Current Quarter (Q2 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)
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>Electric Risks</b>																	
E1 - Carbon Emission Mitigation - Clean Power Plant	20	20	20	20	25	25	25	25	25	25	25	25	25	25	25	25	↔ Stable
E2 - Effluent Limit Guidelines for Steam Units	12	16	16	16	16	16	16	16	16	16	16	16	16	20	20	15	↔ 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	10	10	10	10	10	15	15	15	↔ Stable
E5 - Cooling Water Intake Structures 316(b)	10	10	10	10	10	10	10	10	10	10	10	10	10	20	20	20	↔ Stable
E6 - Long-term Planning/Load Forecast - Electric	6	6	6	6	10	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	15	15	15	15	15	15	15	15	15	15	15	↑ Increasing
W3 - Sanitary Sewer Overflow Management	6	6	6	6	6	6	6	8	8	8	8	8	8	8	12	12	↓ Decreasing
<b>Corporate Wide Risks</b>																	
H1 - Pensions	20	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	12	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	12	↑ Increasing
C16 - Weather & Climate Change Impact														15	15	15	↑ Increasing

\*The Q2 FY2017 risk scores are as the current date.



# ERM – Tier 2 Top Corporate Risk Trends

## Trends as of Current Quarter (Q2 FY17)

**Risk**  
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

Risk	FY13		FY14				FY15				FY16				FY17		Long Term Risk Exposure Trend (> 5 Years)
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>Electric Risks</b>																	
E8 - SJRPP	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	↑ Increasing
E9 - FERC/NERC (Section 693) O&P Reliability & Compliance	9	9	9	9	9	8	8	8	8	8	8	8	8	8	8	8	↔ Stable
E10 - Nuclear Power Portfolio	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	↑ Increasing
E11 - Infrastructure Maintenance - Electric Systems Assets	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
E20 - Operations Technology Management - Electric	4	4	4	4	4	4	4	6	6	6	6	6	6	6	6	6	↔ Stable
E12 - By Product Management	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
E13 - Infrastructure Destruction Due to Severe Weather	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
<b>Water/Wastewater Risks</b>																	
W2 - Operations Technology Management - Water/Wastewater Systems	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	↔ Stable
W4 - Infrastructure Maintenance - Water/Waste Water Systems	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
<b>Corporate Wide Risks</b>																	
C5 - Records Management	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	↔ Stable
C6 - Fraud Risk Management	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	↑ Increasing
T2 - Cyber Security Information Protection		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	↑ Increasing
H2 - Staffing	16	12	12	9	9	9	9	9	9	9	9	9	9	9	9	9	↔ Stable
H3 - Public and Employee Safety	6	6	6	6	9	9	9	9	9	9	9	9	9	9	9	9	↔ Stable
T1 - Technology Infrastructure Reliability	12	12	12	12	12	12	12	4	4	4	4	8	8	8	8	8	↔ Stable
T3 - Cyber Security Business Disruption								8	8	8	8	8	8	8	8	8	↑ Increasing
T4 - Technology Services Disaster Recovery/Business Continuity								8	8	8	8	8	8	8	8	8	↔ Stable
T5 - Technology Services Resource Optimization											9	9	9	9	9	9	↑ Increasing
C7 - Disaster Recovery/Business Continuity	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	↔ Stable
C8 - Black Swan (High Impact - Low probability event)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	↔ Stable
F3 - Credit Availability/Cost	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
C9 - Other Regulatory Compliance	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	↔ Stable
F4 - Counterparty Risk	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	↔ Stable
C4 - External Influence on Policy	9	9	9	10	10	10	10	10	10	10	10	8	8	8	8	8	↔ Stable
W6 - Water Quality Management													8	8	8	8	↔ Stable

\*The Q2 FY2017 risk scores are as the current date



# ERM – Tier 3 Top Corporate Risk Trends

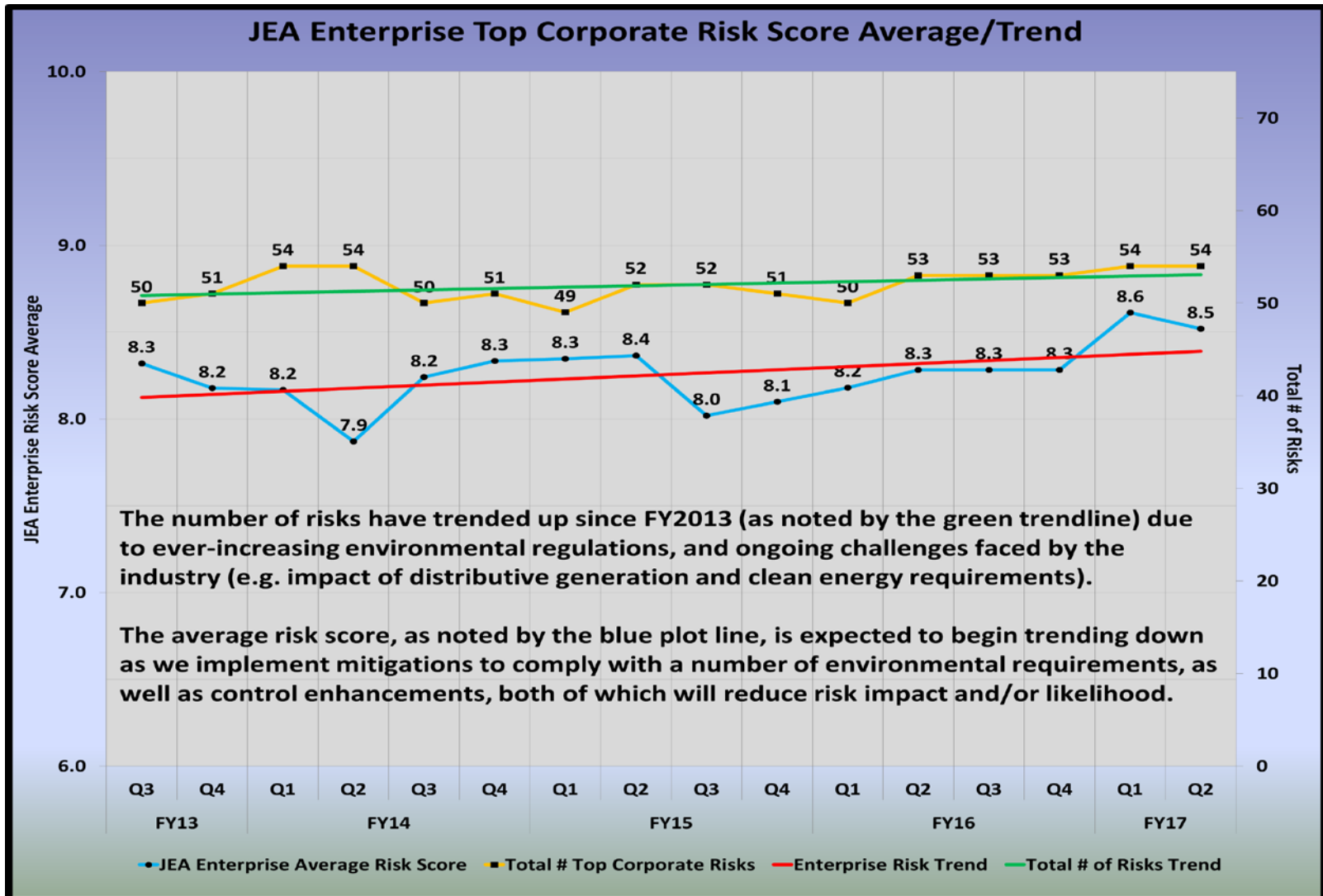
## Trends as of Current Quarter (Q2 FY17)

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)	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
<b>Electric Risks</b>																		
E15 - TEA Activities Risk Management	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable	
E16 - Air Emissions Reduction Regulatory Initiatives	20	20	20	20	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable	
E17 - Mercury and Air Toxics Standards (MATS)	15	15	15	15	15	4	4	4	4	4	4	4	4	4	4	4	↔ Stable	
E18 - Renewable Energy Standards	20	20	3	3	3	3	3	3	3	3	3	3	3	3	3	3	↔ Stable	
E19 - Plant Scherer Environmental Lawsuit		6	6	6	4	1	1	1	1	1	1	1	1	1	1	1	↓ Decreasing	
E21 - Natural Gas Sales - Commercial Customers									6	6	6	6	6	6	6	1	1	↔ Stable
<b>Water/Wastewater Risks</b>																		
W5 - Numeric Nutrient Criteria Mandates	10	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable
<b>Corporate Wide Risks</b>																		
C10 - Project Risk Assessment and Capital Allocation	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable
C12 - Capacity Plan Land Acquisition	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable
C13 - Key Customer Accounts Management	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable
F2 - Financial Regulatory Compliances (e.g. Dodd-Frank Bill)	9	9	9	9	9	9	9	9	4	4	4	4	4	4	4	4	4	↔ Stable
F5 - IRS Bond Audit Records Requirements	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	↔ Stable
H4 - Benefits	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	↔ Stable
C14 - Environmental Compliance Management	1	1	1	1	1	4	4	4	4	4	4	4	4	4	4	4	4	↔ Stable

\*The Q2 FY2017 risk scores are as the current date



# ERM – Top Corporate Risk Average Trends



# Ethics Investigations & Audit Highlights

- Case volume handled through the Ethics Hotline (EHL) has increased steadily since its 2006 inception, with 61% received within the last four years (1/1/13–12/31/16).
- JEA is now working regularly with the City's Office of the Inspector General (OIG) regarding any fraud, waste or abuse complaints we receive through the EHL and other sources.
- To date, we have reported four complaints to the OIG, with JEA taking lead on one case, and assisting the OIG with the other cases. When necessary, our JSO liaison has been engaged to assess for any potential criminal activity.

# Ethics Hotline (EHL) Case Statistics

Open Cases 9/30/2016	Cases Opened 1Q FY17	Cases Closed 1Q FY17	Open Cases 12/31/2016
9	6	7	8

Categories For Cases Opened During 1Q FY17	
Conflict of Interest/Ethics Matters	4
Fraud/Waste/Abuse	2
<b>Total</b>	<b>6</b>

# Summary of Closed EHL Cases - 1Q FY17

Reporting Source	Allegation	Investigation Results
Internal	JEA-16-04-0002 - An individual reported that JEA should look into an employee's unusual badging activity in comparison with reported hours worked.	We determined there was a gap in the employee's badging activity for approximately twenty weeks during which the employee was attempting to use an old badge and calling the front desk to gain access when the exterior gates were closed. Based on the employee's approved time reports along with the Manager's verification, we concluded the employee was at work for the time period in question.
Internal	JEA-16-06-0003 - After learning of a JEA employee's arrest, Management requested an internal investigation to determine if any activities related to the nature of the arrest were conducted by the employee on company time/property or using JEA resources.	Evidence revealed that while at work the employee was tunneling under JEA's firewall to access inappropriate websites. We also found two emails that appeared to be related to the nature of the arrest. The employee resigned and admitted to misusing JEA equipment and circumventing JEA's firewall to access inappropriate websites.
Internal	JEA-16-007-0002 - As a result of internal monitoring, Management reported information indicating possible issues with an employee who changed customers' Social Security numbers.	Our investigation concluded the employee violated JEA policies and procedures by taking customer calls from a family member and friends, and waiving required deposits. Also, company policy was not always followed for running credit checks, requiring two forms of identification, and prepaying deposits. After a Fact Finding meeting, the employee submitted a letter of resignation, which was accepted. Recommendations were made to strengthen the related controls over customer accounts.

# Summary of Closed EHL Cases - 1Q FY17 (cont.)

Reporting Source	Allegation	Investigation Results
External	JEA-16-08-0002 - A member of JEA Senior Management received a JSO inmate information search report indicating an arrest of a JEA employee in 2010.	We confirmed the JEA employee was arrested in 2010; however, the arrest occurred outside of JEA, and the charge was subsequently dropped. Our investigation of more recent activity did not reveal any related misuse of JEA resources by the employee.
Internal	JEA-16-08-0003 - JEA's Security Contractor discovered copper wire in the trash dumpster at JEA's Southside Service Center. The approximate value of the copper was \$260.	The investigation revealed JEA employees were improperly disposing of copper scrap in the trash dumpster rather than in the scrap bins. The employees were issued Letters of Counseling, and Management conducted a meeting to remind employees that scrap metals should not be placed in the trash.
External	JEA-16-09-0002 - JEA's metal recycling vendor reported approximately 3,190 pounds of copper (valued at \$4,500) had been stripped from wire casings, which were placed in a scrap metal dumpster at SJRPP.	There was no evidence of copper wire theft from this project, and the wire casings should have been placed in the trash receptacle in lieu of the scrap metal container. The investigation revealed opportunities for process improvements in Investment Recovery and Project Planning/Design relating to the disposal of scrap material.
Internal	JEA-16-11-0002 - An employee may have violated JEA's P-card procedures by possibly attempting to use a JEA P-card for a charge associated with a social website. This possible procedural violation was detected during internal monitoring of declined P-card charges.	We concluded JEA's procedures were not violated, as the P-card had been externally compromised. After notification to the bank, the card was cancelled and subsequently reissued.



**II. D. 2.**

**Finance & Audit Committee Members –  
Self-Assessment Survey Questionnaire**



Building Community

**AGENDA ITEM SUMMARY**

March 2, 2017

<b>SUBJECT:</b>	<b>FINANCE &amp; AUDIT COMMITTEE MEMBERS - SELF ASSESSMENT SURVEY QUESTIONNAIRE</b>
-----------------	---

<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** The Finance & Audit Committee conducts a self-assessment on an annual basis.

**Significance:** Self-assessments are considered a best practice for Audit Committees and also for full Boards. Over 90% of the full Boards for publicly traded companies perform self-assessments.

**Effect:** To further enhance the effectiveness of the Committee Members by raising awareness and consistency of Board Committee best practices.

**Cost or Benefit:** No cost. See above for benefit.

**Recommended Board action:** JEA staff recommends the Committee Members complete the self-assessment process using the attached form. Completed forms will be submitted to the Director, Audit Services by the end of April for compiling and summarization. Results will be reported at the May 8, 2017 Finance & Audit Committee Meeting.

**For additional information, contact:** Steve Tuten, Director, Audit Services (904) 665-5206

Submitted by: PEM/ TEH/ SVT

MISSION

Energizing our community through high-value energy and water solutions.

VISION

JEA is a premier service provider, valued asset and vital partner in advancing our community.

VALUES

- Safety
- Service
- Growth<sup>2</sup>
- Accountability
- Integrity

**Commitments to Action**

- 1** Earn Customer Loyalty
- 2** Deliver Business Excellence
- 3** Develop an Unbeatable Team



**2017 Finance and Audit Committee Annual Self-Assessment Questionnaire**

	Satisfactory	Opportunity for Improvement	Comments
<b>Committee Composition</b>			
1. Qualified Committee Members are identified by sources other than management.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
2. Committee Members have appropriate qualifications to meet Committee objectives, including appropriate financial literacy.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
3. Committee has a sufficient number of Members to conduct its business.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
4. The Committee reviews its policy annually to determine whether its responsibilities are described adequately, and recommends changes to the Board for approval.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
5. New Committee Members participate in an orientation program to educate them on the company, their responsibilities, and the company's financial reporting and accounting practices.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
<b>Understanding the Business and its Risks</b>			
6. The Committee considers, understands, and approves the management processes to effectively identify, assess and mitigate the organization's key risks.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
7. Management has an effective compliance and ethics program.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
8. Management has sufficient processes and controls to prevent and detect fraud.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
<b>Committee Meeting Administration</b>			
9. The meeting agenda and materials are distributed enough in advance to allow Members enough time to study and understand the information.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
10. Committee meetings are conducted effectively, with sufficient time spent on business unit presentations, including significant or emerging issues.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
11. Meeting environment is conducive to Members feeling comfortable in challenging management and each other, as appropriate.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
12. Meetings are of sufficient duration.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
13. Committee Members regularly attend meetings.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
14. Committee Members are well-prepared for the meetings.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
15. Committee has sufficient opportunity to meet in separate private sessions with management, the internal auditors and the external auditors.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
16. The Committee maintains adequate minutes of each meeting.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here

	Satisfactory	Opportunity for Improvement	Comments
17. The Committee reports its proceedings and recommendations to the Board after each Committee meeting.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
<b>Oversight of Financial Reporting</b>			
18. Members understand the company's financial results and how reported results compare to plan.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
19. The Committee reviews the company's significant accounting policies.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
20. The Committee oversees controls over financial reporting.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
21. The Committee confirms that any material financial reporting weaknesses identified are adequately addressed.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
<b>Oversight of Audit Functions</b>			
22. The Committee regularly reviews the adequacy of the internal audit function's charter, its audit plan, budget, and experience of its Director and Team.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
23. Internal audit's reporting lines allow for significant issues to be brought to the attention of the Committee.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
24. The Committee oversees the role of the external auditors from selection to termination, and has an effective process to evaluate the external auditors' qualifications and performance.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
25. The Committee oversees the adequacy of the external auditors' plan.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here
<b>Self-Assessment</b>			
26. An annual self-evaluation of the Committee is conducted and any significant matters that require follow-up are resolved and presented to the full Board.	<input type="checkbox"/>	<input type="checkbox"/>	Enter your comments here

General Comments:

Enter your comments here

II. E.

Cyber Security Activities



Building Community

**AGENDA ITEM SUMMARY**

February 27, 2017

<b>SUBJECT:</b>	<b>CYBER SECURITY ACTIVITIES</b>
-----------------	----------------------------------

<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** Cyber Security has become an important media topic after the political hacking that occurred this past year, as well as the hacking of the Ukraine Electric Grid.

**Significance:** This presentation will provide some high-level information to the Board to assure Members that JEA is taking appropriate actions to manage and defend against cyber risks.

**Effect:** Failure to properly protect JEA's assets and customers/employees personal information may result in fines, financial fraud, business disruption and/or reputational damage.

**Cost or Benefit:** Risk Avoidance

**Recommended Board action:** This agenda item is provided for information only; no action is required.

**For additional information, contact:** Paul Cosgrave (904) 665-8601

Submitted by: PEM/PJC

<b>MISSION</b>  Energizing our community through high-value energy and water solutions.	<b>VISION</b>  JEA is a premier service provider, valued asset and vital partner in advancing our community.	<b>VALUES</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Service</li><li>• Growth?</li><li>• Accountability</li><li>• Integrity</li></ul>
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**Commitments to Action**

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**



Building Community®



# Finance and Audit Committee Presentation

## March 13, 2017

II. E  
3/13/2017

Return  
to Agenda

# Cyber Security

## Risk Oversight and Critical Infrastructure Protection (CIP) Compliance

# Political and Media Events are Heightening the Concern of a Major Cyber Attack Against the US Power Grid



**The New York Times**  
**Spy Agency Consensus Grows That Russia Hacked D.N.C.**

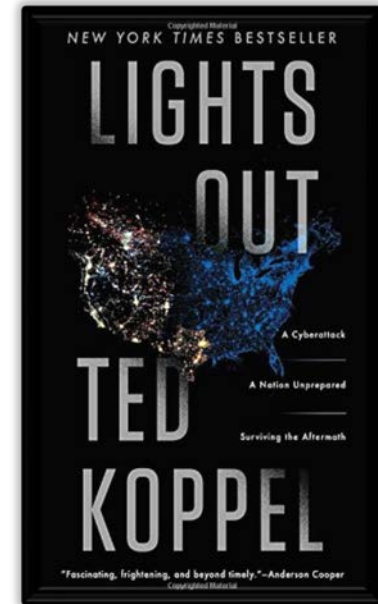


**Burlington Free Press**  
PART OF THE USA TODAY NETWORK

**Russian hackers strike Burlington Electric with malware**



**Russian hacks into Ukraine power grids a sign of things to come for U.S.?**



“There are two kinds of big companies in the U.S. There are those who’ve been hacked...and those who don’t know they’ve been hacked.”

-James Comey, FBI Director

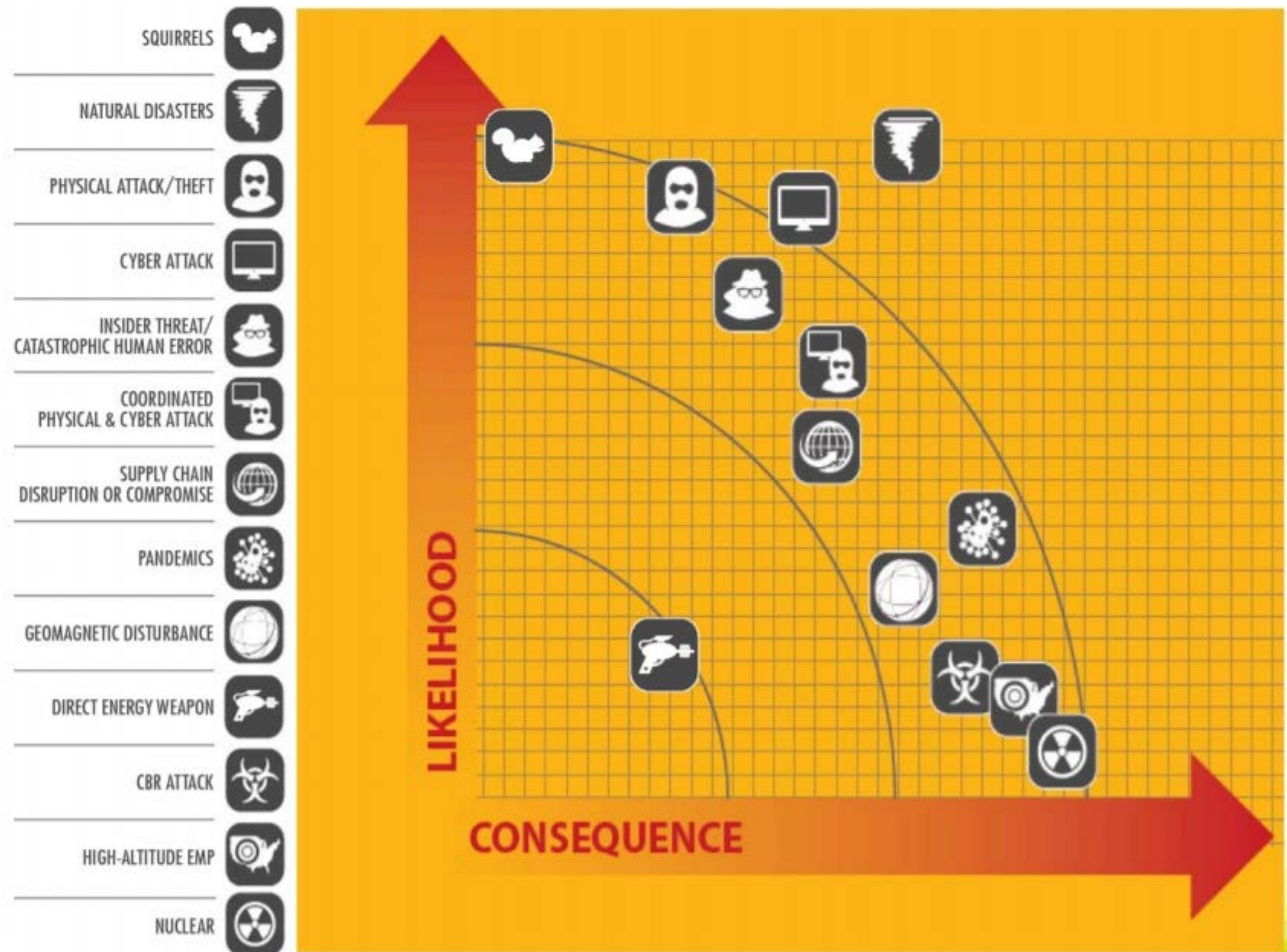


# Is the Hype of a Major Cyber Security Attack Overblown?

“According to Marcus Sachs, CSO with the North American Electric Reliability Corporation (NERC), fears of a cyberattack are overblown.

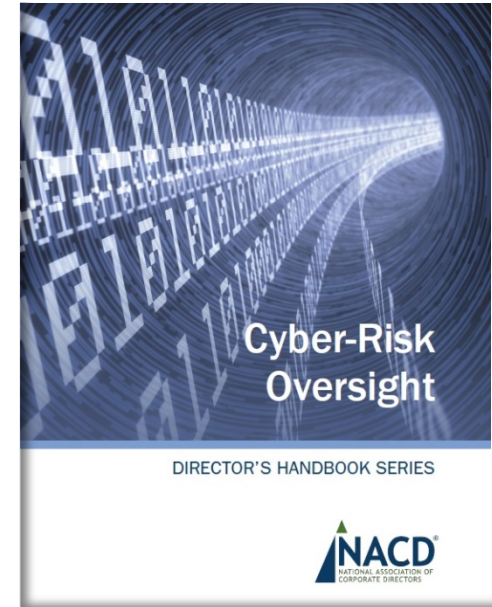
Sachs told RSA Conference attendees on Thursday that squirrels, birds and snakes are currently a bigger threat to the power grid than cyber adversaries.”

-Tom Spring, Threat Post Blog, February 2/17/17



# Five Key Steps Boards Should Take Regarding Cyber Security<sup>1</sup>

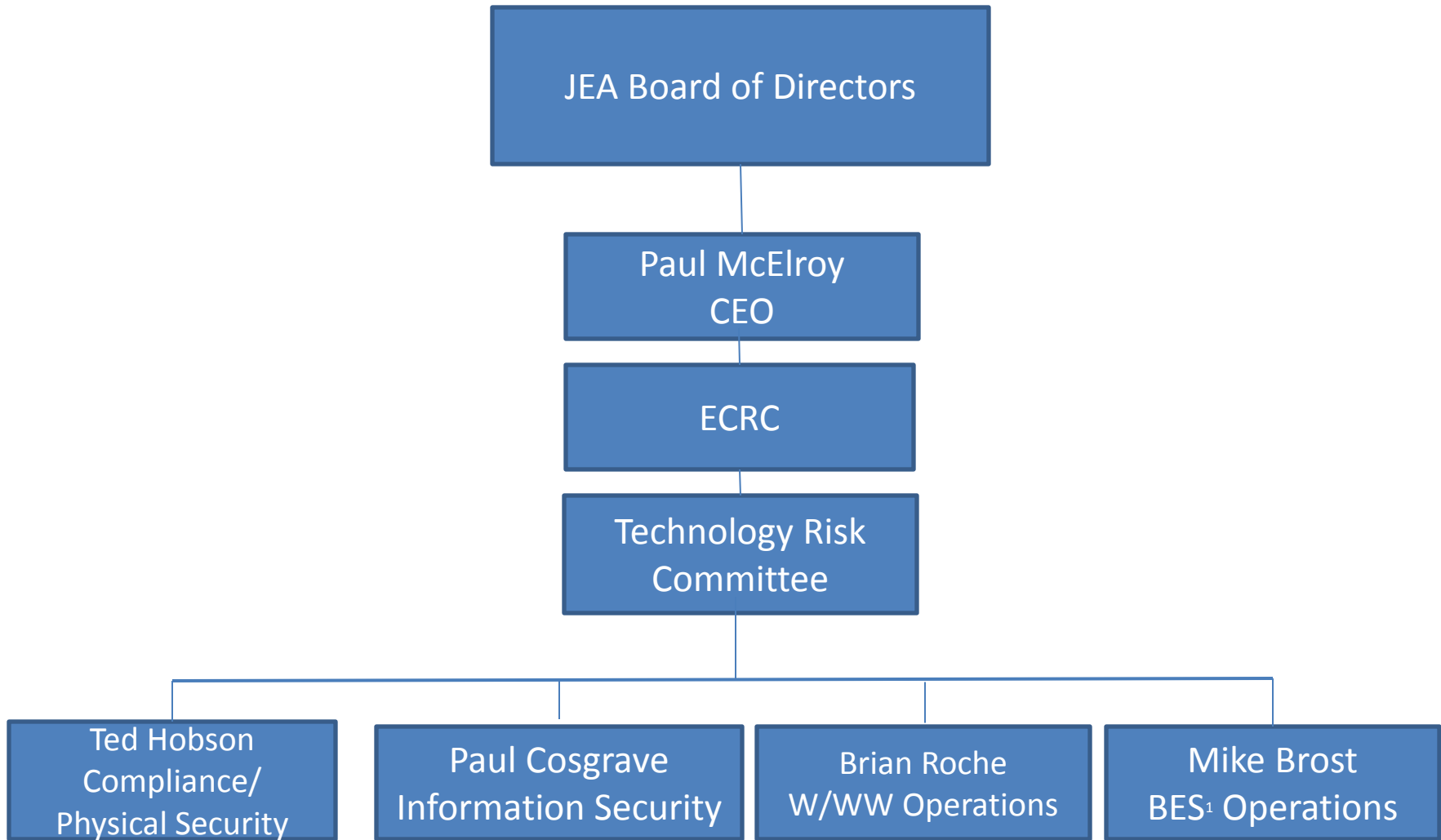
1. Directors need to understand and approach cyber security as an enterprise-wide risk management issue, not just an IT issue. (JEA has an ERM focus)
2. Directors should understand the legal implications of cyber risk as they relate to their company's specific circumstances. (JEA coordinates with OGC)
3. Boards should have adequate access to cyber security expertise and discussions about cyber-risk management should be given regular and adequate time on board meeting agendas. (1:1 discussions)
4. Directors should set the expectation that management will establish an enterprise-wide cyber-risk management framework with adequate staffing and budget. (ECRC Committees Plus 2 Dozen+ FTEs)
5. Board-management discussions about cyber risk should include identification of which risks to avoid, which to accept and which to mitigate or transfer through insurance, as well as specific plans associated with each approach.



<sup>1</sup>Cyber-Risk Oversight, Director's Handbook Series, NACD, 2017



# Cyber Security Risks are Managed as Part of the Overall Enterprise Compliance & Risk Committee



# CIP Risks

## Risk

## Corporate

## CIP

- Loss or Alteration of Intellectual Property
- Sensitive Consumer or Employee Data Disclosure
- Online Service Denial
- Financial Fraud
- Electric Grid Disruption
- W/WW System Disruption<sup>1</sup>



N/A



N/A

N/A



N/A



<sup>1</sup>W/WW System Cyber Security Protection is not regulated to the same extent as electric.

## Information Security Threats that will Dominate in 2017

- Supercharged connectivity and the Internet of Things (Threats)
- Crime-as-a-Service - Crime syndicates take quantum leap (Ransomware)
- New regulations bring compliance risks
- Brand reputation and trust are a target





## What is Ransomware?

- Malicious Software that allows a hacker to restrict access to an individual or company's vital information in some way, typically encryption of critical information.
- Payment in Bitcoins to release the encryption is demanded.
- Hackers have shifted their focus to businesses rather than individuals.
- The FBI estimates that losses due to ransomware topped \$1 Billion in 2016 and will continue to grow in 2017.

## How does JEA protect against it?

- Strong controls for spear phishing detection and spam control, all suspicious emails or links are quarantined.
- Content control and filtering for limiting access for any malicious content, and preventing download of malicious content.
- Anti-Malware prevention on all end point devices.
- Intrusion Prevention System (IPS) at all entry points to JEA.
- Program for security patching for all end user systems.
- Strong Backup and Recovery process for all critical JEA data.
- End User education to spread awareness of cyber threats.

# Information Security Defensive Trends

- Physical and cyber security industries join forces and threat intelligence sharing makes great strides (Fusion Center)
- Greater focus will be placed on peripheral devices. (IoT/HVAC)
  - Thumb-drives are a particular concern, usage is limited and must pass security scans
- While vulnerability exploits on Windows cool down as other platforms heat up and as machine learning accelerates social engineering attacks, JEA is focusing on employee education and limiting individuals with administrative access control
- JEA is participating in Community Service Cyber Security activities to help build customer confidence in JEA brand

# JEA's Role on the LPPC Cyber Security Taskforce

- JEA chairs the Policy Sub-Committee of the Large Public Power Council (LPPC) Cyber Security Taskforce (CSTF)
- In 2016 the CSTF conducted surveys among the members on three important topics:
  - Board Communication
  - Cyber Liability Insurance
  - Background Screening Processes
- Regarding Board Communication, of 14 member firms responding to the survey, 10 had F&A Committees, 7 held discussions with those committees. The majority report in both closed and open sessions governed by State's Sunshine Laws.
- Regarding Cyber Insurance, a fairly new offering, 8 out of 18 firms that responded indicated that they had some form of cyber insurance. The amounts and what specifically was covered varied widely.
- Background screening is required by CIP regulations and all 17 respondents to this survey reported they have policies and procedures in place. JEA's policies were quite strong when compared to other utilities.



II. F.

CIP Compliance Update



Building Community

**AGENDA ITEM SUMMARY**

March 2, 2017

<b>SUBJECT:</b>	<b>CIP COMPLIANCE UPDATE</b>
-----------------	------------------------------

<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** With threats from domestic and foreign terrorists, it is important that critical infrastructures are protected against a vast amount of potential issues.

**Significance:** This presentation will provide a high-level overview of the systems JEA has in place to protect our resources.

**Effect:** Failure to properly protect JEA's assets and customers/employees personal information may result in fines, financial fraud, business disruption and/or reputational damage.

**Cost or Benefit:** Risk Avoidance

**Recommended Board action:** This agenda item is provided for information only; no action is required.

**For additional information, contact:** Ted Hobson, Chief Compliance Officer, (904) 665-7126

Submitted by: PEM/TEH

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**Commitments to Action**

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**



# Need for The Grid

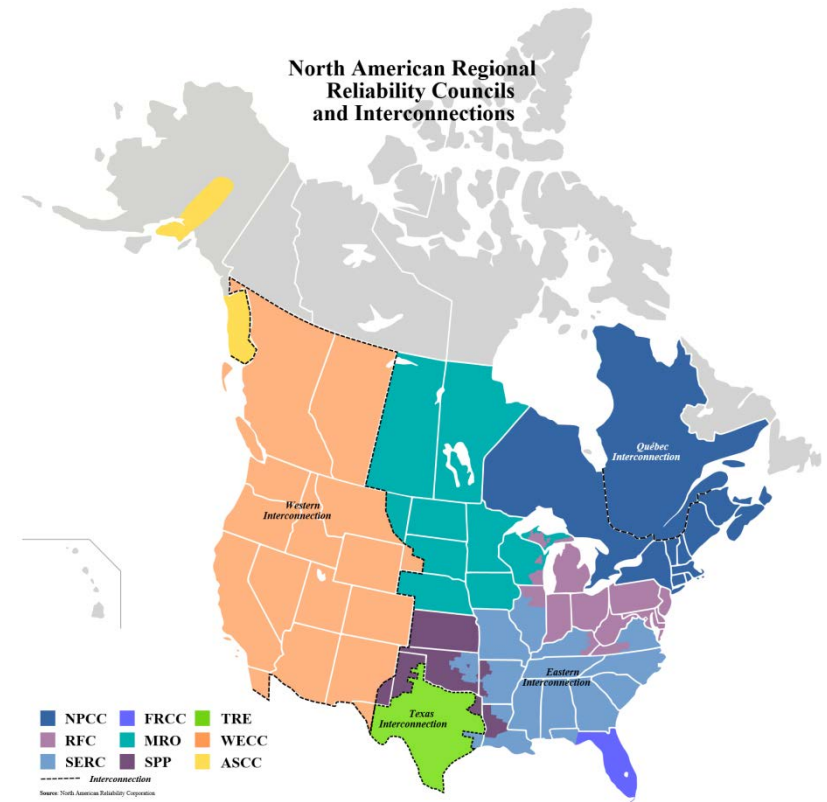
North American Interconnected Electric System (the Grid) is the largest machine in the world.

## Benefits of Interconnection

- Significant reduction in cost
- Significant improvement in reliability

## Risks of Interconnection

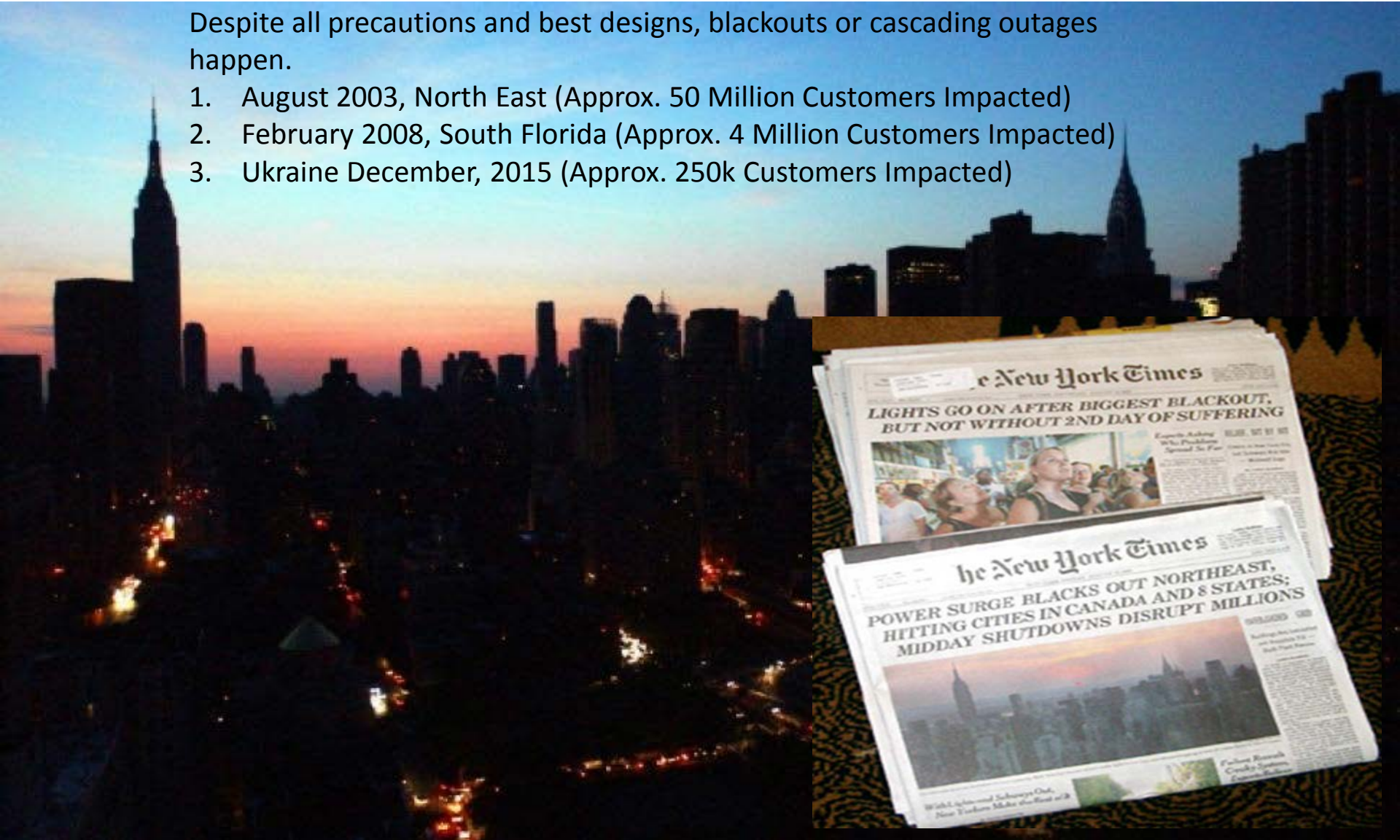
- Multiple Organizations coordinate and control
- Heavily dependent on computers for control and operations



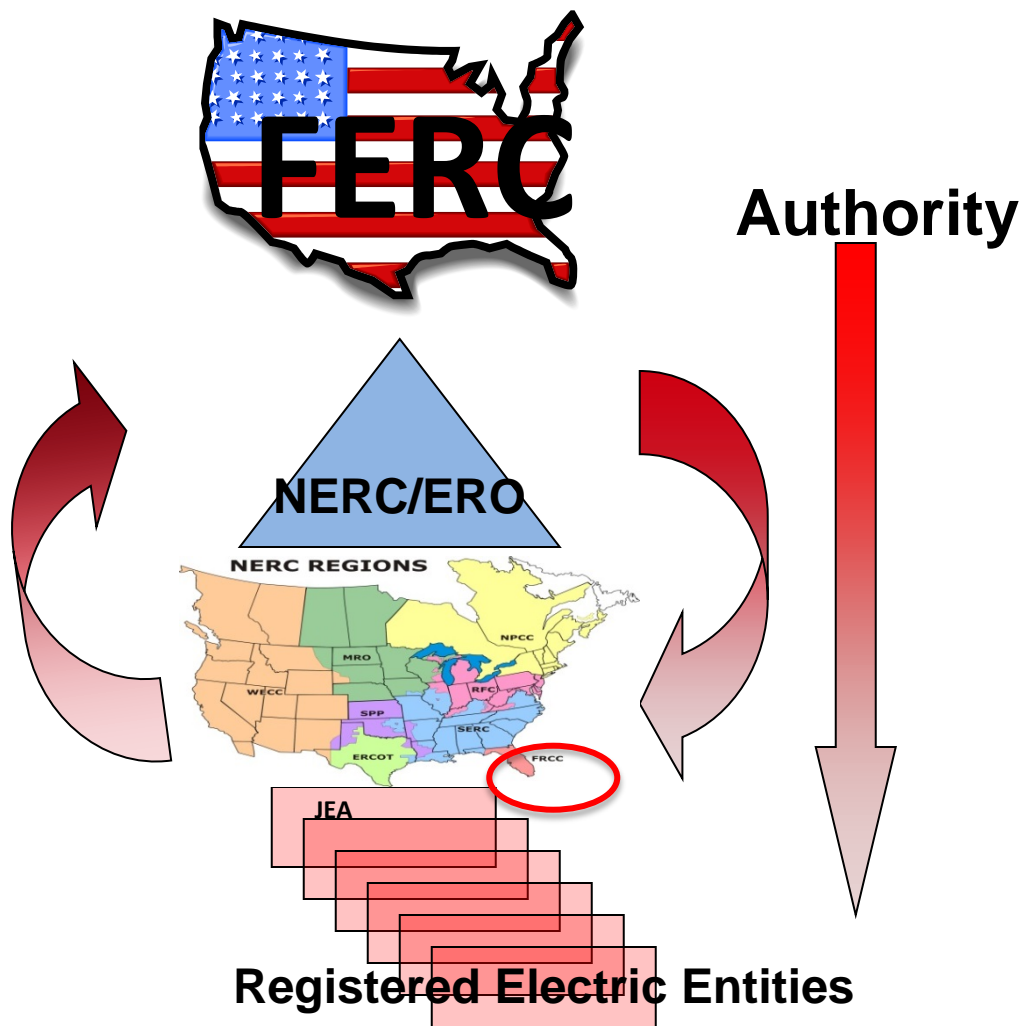
# Blackouts

Despite all precautions and best designs, blackouts or cascading outages happen.

1. August 2003, North East (Approx. 50 Million Customers Impacted)
2. February 2008, South Florida (Approx. 4 Million Customers Impacted)
3. Ukraine December, 2015 (Approx. 250k Customers Impacted)

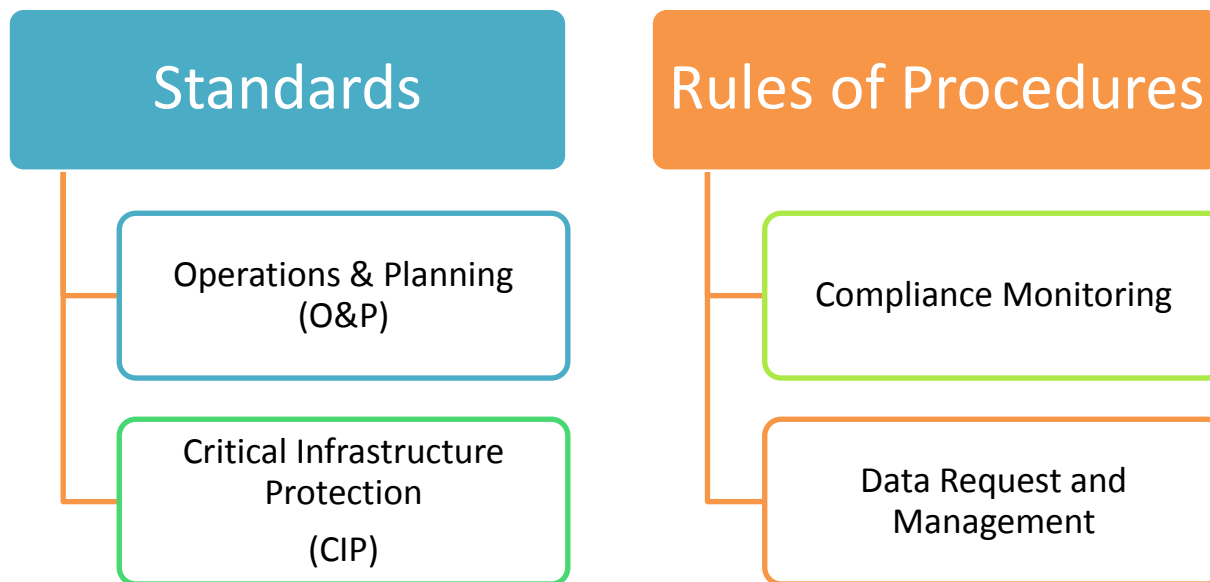


# NERC - ERO



- EAct 2005 mandated creation of the North American Electric Reliability Organization(NERC), and gave the Federal Energy Regulatory Commission (FERC) oversight with significant penalty authority
- NERC can delegate some authority to an approved **Regional Entity (RE) also referred to as Compliance Enforcement Agency (CEA)**
- There are 8 RE's in the US
- JEA is monitored by Florida Reliability Coordinating Council Inc. (FRCC)

# NERC Reliability Standards



Standards and Rules of Procedures (RoP) must be approved by FERC

# NERC CEA Monitoring Methods

- Audits (every 3 years)
- Spot Checks (Random)
- Compliance Investigations
- Complaints
- Self-Reports
- Self-Certifications (Annual)
- Periodic Data Submittals
- Compliance Assessments for Events and Disturbances



# CIP Implementation Timelines

Recognizing the increasing risk of cyber security in operations technology, FERC approved Critical Infrastructure Protection (CIP) standards on January 18, 2008.

- July 1, 2008 – CIP Version 1 in effect
- April 1, 2010 – CIP Version 3 in effect
- July 1, 2016 – CIP Version 5 in effect



## CIP-002

- Identify Risks for all Bulk Electric System assets
- Classify each as **HIGH, MEDIUM** or **LOW**

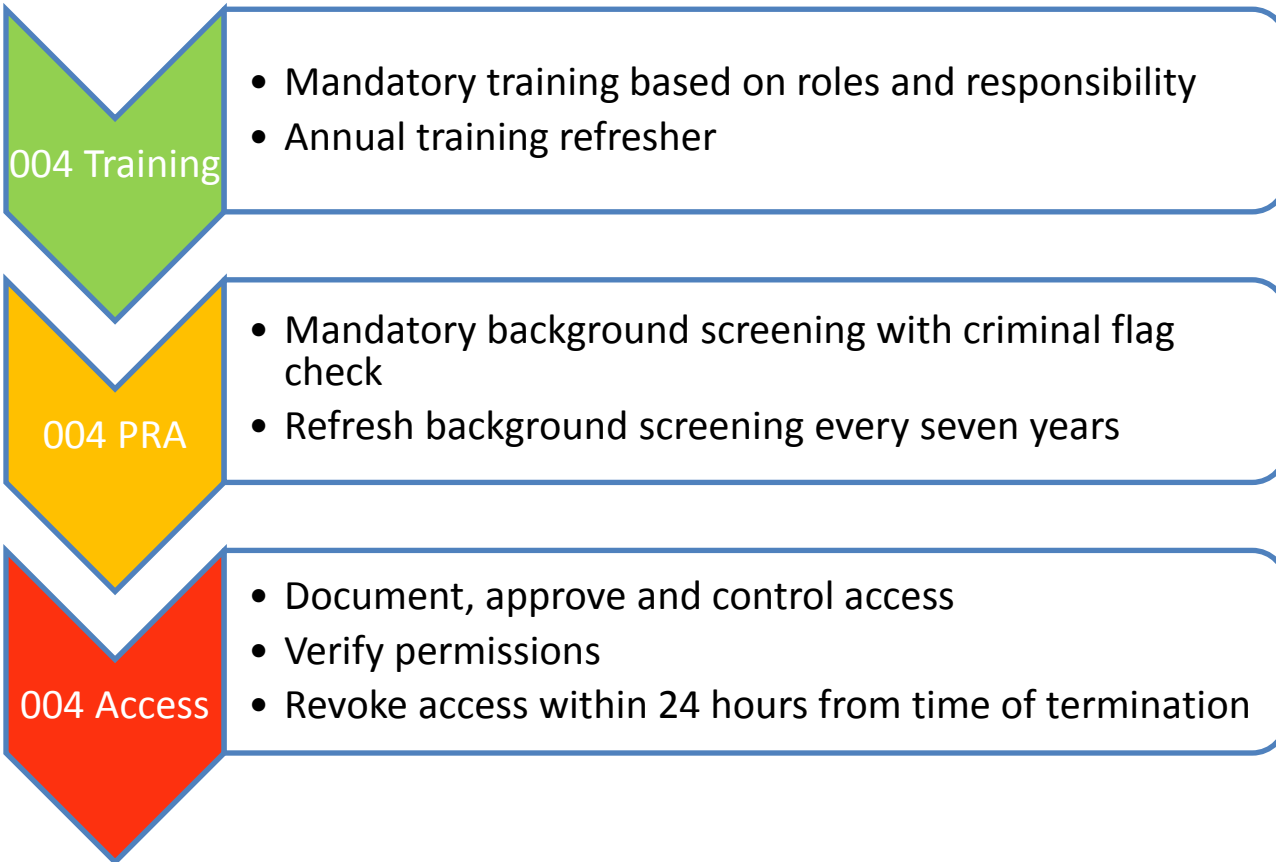
## CIP-003

- Assign a Senior Manager who has Responsibility and Authority
- Policy approved by Senior Manager who ensures compliance with CIP

### JEA CIP Assets

High	Medium	Low
125 Requirements	105 Requirements	22 Requirements
2 Control Centers	3 Substations	42 Substitutions 5 Generating Plants

# CIP – Personnel Management



# CIP – Physical Security

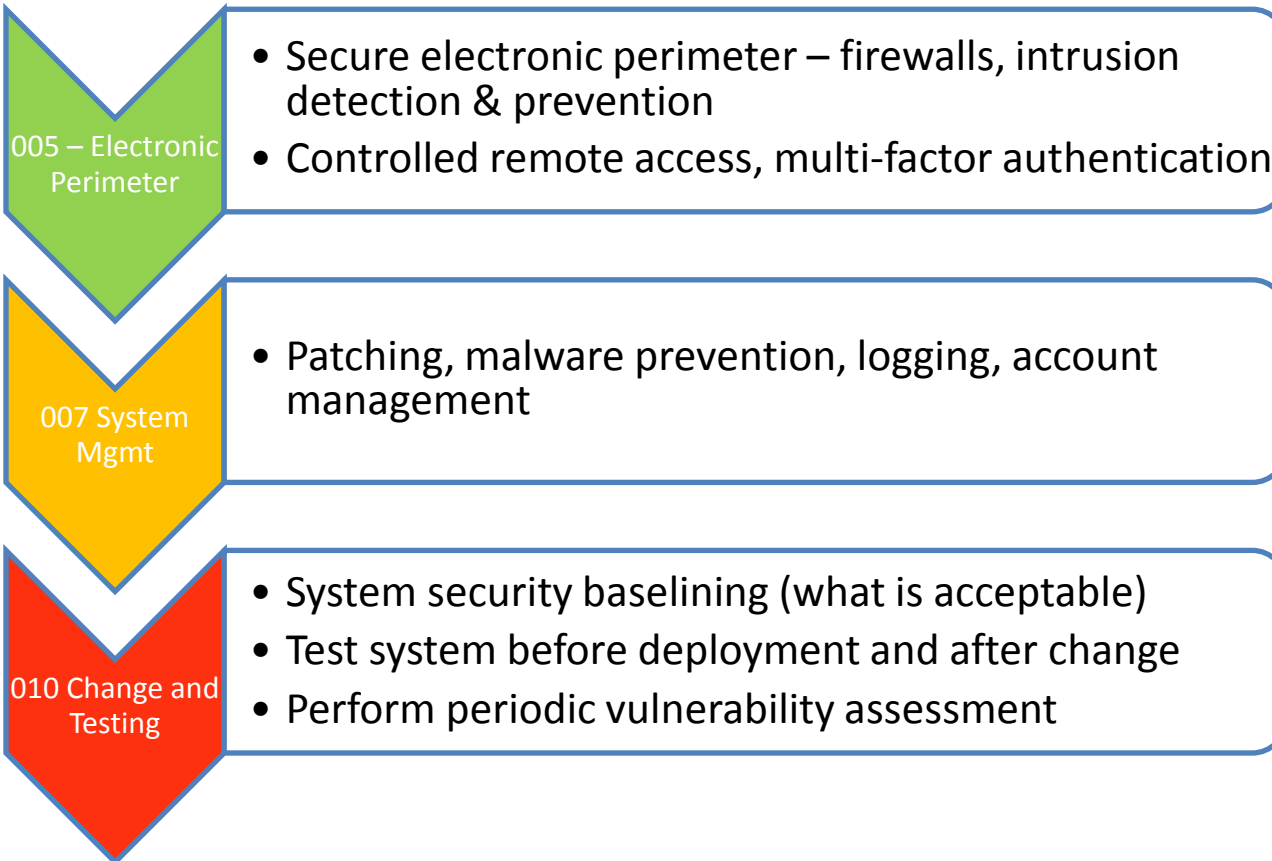
CIP-006

- Protect security of CIP locations
- Install security protection devices and log access
- Respond to security alerts and incidents
- Visitor Control Program
- Maintain security devices regularly

CIP-014

- Assess risk for all high impact substations and associated control centers
- Verify it with a third party opinion
- Create security plan to address risks identified in the final risk assessment

# CIP – Technical Controls



# Business Continuity & Information

## 008 – Incident Response

- Cyber security incident response including roles and responsibilities
- Annual drill to test capabilities and effectiveness

## 009 - System Recovery

- System recovery for all systems that control or monitor BES
- Annual drill to verify that plans will work

## 011 – Information Protection

- Identify where critical information is stored
- Control access based on business needs
- Erase data based on approved standards when redeploying systems

# CIP Roles At JEA

## CIP Compliance

- Independent Monitoring group responsible for Compliance Monitoring and Reporting to regulatory authority
- Responsible for regulatory communication and Coordination with FERC, NERC and FRCC
- Responsible for Inputs to Standard Drafting
- Responsible for internal communications/updates and interpretation of standards
- Responsible for annual Training & drills coordination with Business Unit Subject Matter Experts
- Responsible for review of compliance ,and event investigations if needed
- Also responsible for other regulatory activities such as Identity Theft regulations (FACTA), TCPA (Rob calls), HIPAA (Health Information Protection), PCI (Purchase Card Data Security) etc.

## Business Units

- Responsible for Implementing Compliance
- Responsible for completing periodic compliance activities and maintaining documentation
- Communicating with compliance if any issues are detected
- Mitigating any gaps and vulnerabilities
- Supporting CIP compliance for any regulatory reporting data requests
- Ensuring that JEA CIP systems are secure, reliable and available

# Achievements & Challenges

## Achievements

JEA has been the only utility in the Florida Region to complete a CIP audit with no findings. Very few utilities in the nation have been able to achieve a similar result.

## Challenges

- CIP Audit 2017 – July 10 -14
- NERC GridEx November 15-17



II. G.

Ethics Officer Report

# JEA

## Ethics Officer Report

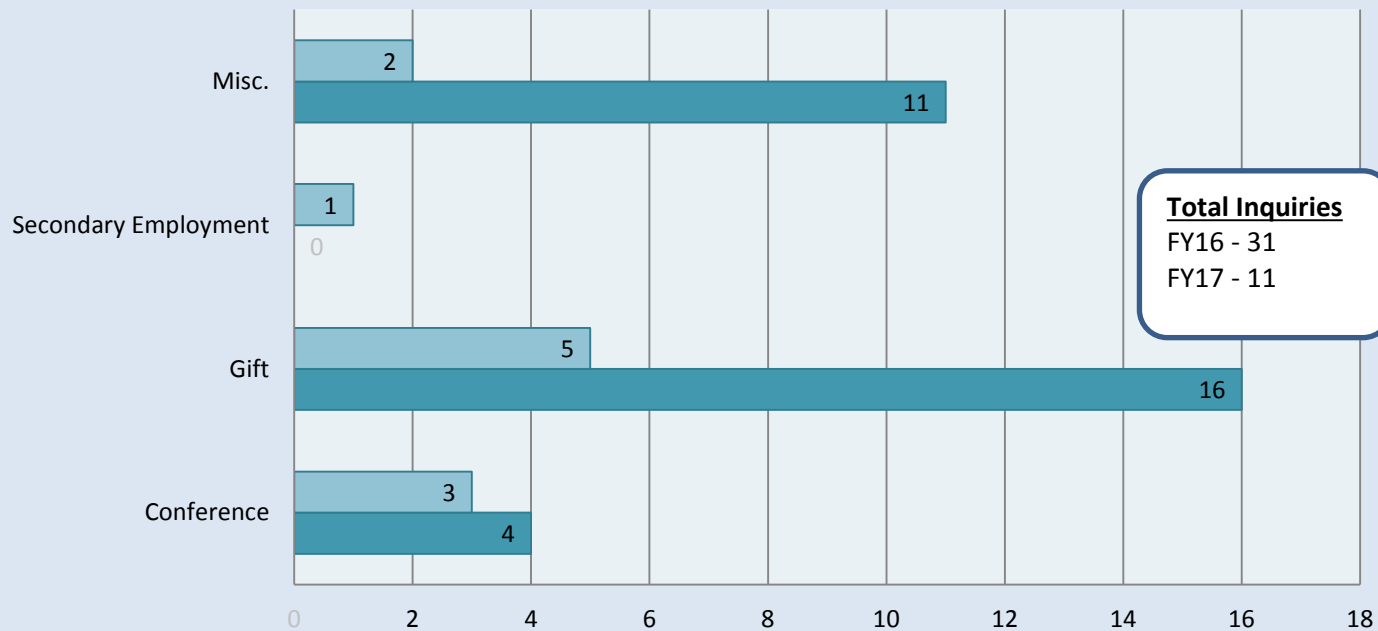
### March 13, 2017

#### **Creating an Ethical Culture**

JEA will conduct its business fairly, impartially, in an ethical and proper manner, and in full compliance with all applicable laws and regulations



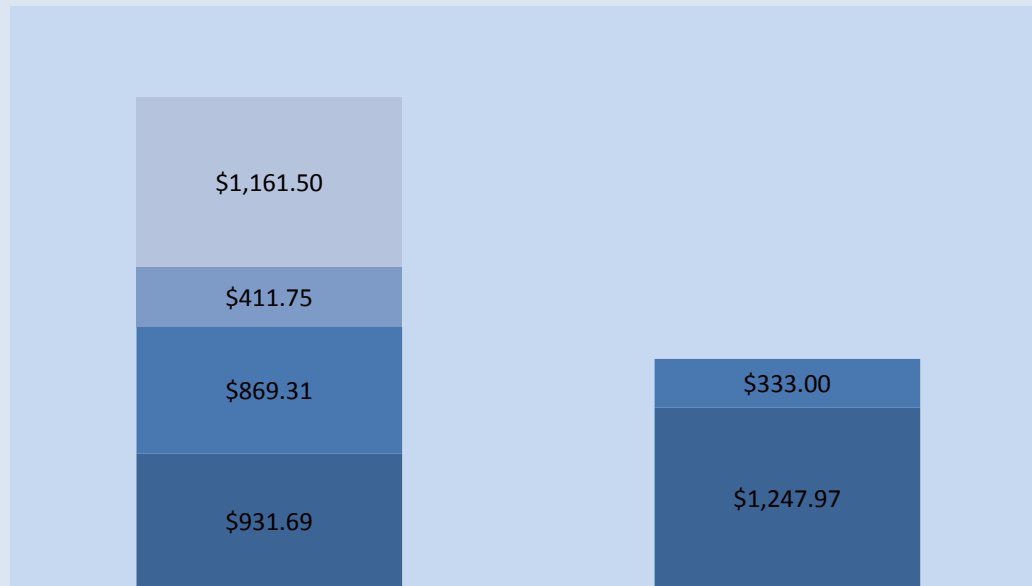
## Ethics Inquiries Comparison FY16/FY17 1st-2nd Quarter Results



**Total Inquiries**  
FY16 - 31  
FY17 - 11

	Conference	Gift	Secondary Employment	Misc.
FY17	3	5	1	2
FY16	4	16	0	11

## FY16/FY17 GIFT ESTIMATES COMPARISON PER QUARTER



	FY16	FY17
■ Q4	\$1,161.50	
■ Q3	\$411.75	
■ Q2	\$869.31	\$333.00
■ Q1	\$931.69	\$1,247.97

Food Items: lunch or dinners during meetings or trainings, assorted candies and cookies

Promotional items: ball caps, t-shirts, pens, gloves

Misc: golf, door prizes, televisions, game tickets, gift cards, flowers

Registration fees

# Business Ethics Update and What's Next

- **Nepotism Project started in December 2016 and completed February 2017.**
  - This review was to ensure compliance with our Nepotism Procedure; specifically, Emerging Workforce Strategies Procedure EWS A0210 002, “Nepotism”, originated January 1, 1982 and most recently updated on March 10, 2016.
  - In December, 310 employees had a nepotism flag, as well as their relationship’s name(s), in Oracle.
  - Ethics reviewed all incomplete employee records to obtain the documentation necessary to clear the nepotism flag on the records.
- **Ethics Officer attended the Utilities & Energy Compliance & Ethics Conference conducted by Society of Corporate Compliance and Ethics (SCEE) on February 19-22, 2017 in Washington, DC.**
- **On March 1, 2017, JEA Business Ethics Training will begin.**
  - March is National Ethics Awareness Month, and JEA is committed to upholding the highest level of ethics and integrity.
  - In recognition of National Ethics Awareness Month, all JEA employees will complete the Business Ethics Refresher e-Learning by March 31st.. **The focus this year will be on Secondary Employment attestation.**

II. H.

JEA Energy Market Risk Management Policy Report



Building Community

**AGENDA ITEM SUMMARY**

March 13, 2017

<b>SUBJECT:</b>	<b>JEA ENERGY MARKET RISK MANAGEMENT POLICY REPORT</b>
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<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** The JEA Board approved the Energy Market Risk Management (EMRM) Policy in March 2014. The Policy was developed to codify the risk, governance, limits, and criteria associated with managing energy market exposure, and to comply with requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The reporting section of the Policy requires a quarterly report on JEA's financial and physical fuel and power transactions. This report includes physical transactions greater than one year and all financial transactions.

**Significance:** High. The Policy governs JEA's wholesale energy market risk management and allows JEA to execute certain physical and financial transactions. The attached report is provided to the Board Finance and Audit Committee and satisfies the requirements of the reporting section of the EMRM Policy.

**Effect:** Financial and physical transactions allow the JEA Fuels group to manage the risks inherent in the wholesale fuel and energy markets. The attached Finance and Audit Committee report summarizes JEA's current positions.

**Cost or Benefit:** The costs of financial transactions are reflected in comparison to market indices. The benefits include establishment of a stable fuel price for the future.

**Recommended Board action:** None required. The report is required by the EMRM Policy and is provided as information.

**For additional information, contact:** Steve McInall, 665-4309

Submitted by: PEM/ MJB/ SGM

<b>MISSION</b>  Energizing our community through high-value energy and water solutions.	<b>VISION</b>  JEA is a premier service provider, valued asset and vital partner in advancing our community.	<b>VALUES</b> <ul style="list-style-type: none"><li>• Safety</li><li>• Service</li><li>• Growth<sup>2</sup></li><li>• Accountability</li><li>• Integrity</li></ul>
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**Commitments to Action**

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**

**Energy Market Risk Management: Physical and Financial Positions**

Summary as of 2/8/2017		
Projected FY17 Expense (Budget = \$412M)	\$448M	☹
Projected Fuel Fund Ending Balance FY17	\$128M	☺
EMRM Compliance	Yes	☺
Counterparty Credit Limit Exceptions	No	☺
Any Issues of Concern	No	☺

**Table 1: Physical Counterparties (Contracts One Year or Greater) as of 2/1/2017**

Generating Unit	Fuel Type	Supplier/ Counterparty	Contract Type	Remaining Contract Value	Remaining Contract Term
SJRPP	Coal	Coal Marketing Company	Index w/ Collar	\$ 8,924,633	1 month
SJRPP	Coal	Coal Marketing Company	Fixed Price	\$ 80,260,060	9 months
Scherer 4	Coal	Alpha- Eagle Butte	Fixed Price	\$ 61,853,589	11 months
Scherer 4	Coal	Coal Sales, LLC	Fixed Price	\$ 34,031,201	11 months
Scherer 4	Coal	Arch Coal Sales Company, Inc	Fixed Price	\$ 21,767,123	11 months
Scherer 4	Coal	FY18 Contura Eagle Butte	Fixed Price	\$ 44,373,196	12 months
Scherer 4	Coal	FY19 Contura Eagle Butte	Fixed Price	\$ 46,874,729	12 months
NG Fleet	Natural Gas	Shell Energy	Index w/Fixed Price Option	\$ 289,438,290	4.2 years

**Table 2: Financial Positions as of 2/1/2017**

Year	Commodity	Physical Volume (mmBtu)	Hedged Volume (mmBtu)	Percent Hedged	Unhedged Cost (\$/mmBtu)	Hedge Type	Hedge Price	Mark-to-Market Value	Counter Party
FY17	Natural Gas	27,868,900	4,200,000	15.1%	\$3.27	Collar	\$2.93/\$4.50	\$583,948	Wells Fargo
FY18	Natural Gas	33,154,400	-	0.0%	\$3.19	-	-	-	-
FY19	Natural Gas	29,710,700	-	0.0%	\$2.92	-	-	-	-

**Table 3: Fuel Procurement as of 2/8/2017**

Fuel Type	Coal	Petcoke	Oil/Diesel	Purchased Power	Natural Gas	Renewables	Nuclear
FY17 Remaining							
Expected Spend (\$)	123.0M	16.0M	0.3M	18.0M	104.2M	6.6M	
% Procured	71%	43%	100%	0%	48%	100%	
% Hedged	71%	9%	100%	0%	16%	100%	
FY18							
Expected Spend (\$)	177.4M	54.3M	1.3M	27.6M	109.2M	12.8M	
% Procured	18%	10%	100%	0%	67%	100%	
% Hedged	18%	10%	100%	0%	0%	100%	
FY19							
Expected Spend (\$)	186.0M	52.6M	2.7M	24.4M	89.4M	11.9M	3.6M
% Procured	17%	10%	100%	0%	75%	100%	100%
% Hedged	17%	10%	100%	0%	0%	100%	100%

**Supporting Notes:**

- Renewable and nuclear power purchase agreements are not included in Table 1
- Natural Gas Transportation is 100% fixed capacity and price
- Solid fuel procurement – quarterly at Northside; longer term 2017/18 for SJRPP and Scherer
- FY17 Energy Mix: 43% Gas, 48% Solid Fuel, 9% Purchase Power expected (based on MWH)
- In Table 3, the procured percent relates to inventory on hand, or contracted and the percent hedged is inventory on hand or contracted with fixed pricing or financial hedges.
- The FY17 projected fuel fund ending balance has decreased from budget because of increases in fuel prices (\$50M) and lowering of the fuel rate from \$36.75 to \$32.50 on 12/2016 (\$44M).



II. I. 1.

Resolution Determining the Sufficiency of Revenues –  
St. Johns River Power Park



Building Community

**AGENDA ITEM SUMMARY**

March 13, 2017

<b>SUBJECT:</b>	<b>RESOLUTION DETERMINING THE SUFFICIENCY OF REVENUES - ST. JOHNS RIVER POWER PARK</b>
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<b>Purpose:</b>	<input type="checkbox"/> Information Only	<input checked="" type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** An annual requirement under the St. Johns River Power Park Bond Resolution (the "Bond Resolution") for JEA to determine that for the upcoming fiscal year the Electric System's revenues will be sufficient to make all required payments under the Bond Resolution.

**Significance:** High. The completion of this requirement is needed to be in compliance with the Bond Resolution.

**Effect:** The ability of the Electric System to make all required payments under the Bond Resolution.

**Cost or Benefit:** Failure to make the determination could result in revenues that are insufficient to meet all the requirements under the Bond Resolution, potentially affecting both JEA's credit ratings and reputation in the bond market.

**Recommended Board action:** JEA staff recommends the Finance and Audit Committee recommend Board approval and adoption of Resolution No. 2017-27 determining that the estimated revenues for the Fiscal Year ending September 30, 2018, will be sufficient for their intended purposes.

**For additional information, contact:** Joe Orfano, Treasurer, 665-4541

Submitted by: PEM/MHD/JEO/LMB

<b>MISSION</b> 	<b>VISION</b> 	<b>VALUES</b> 
Energizing our community through high-value energy and water solutions.	JEA is a premier service provider, valued asset and vital partner in advancing our community.	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Service</li> <li>• Growth<sup>2</sup></li> <li>• Accountability</li> <li>• Integrity</li> </ul>

**Commitments to Action**

- 1** Earn Customer Loyalty
- 2** Deliver Business Excellence
- 3** Develop an Unbeatable Team



**INTER-OFFICE MEMORANDUM**

March 13, 2017

**SUBJECT: RESOLUTION DETERMINING THE SUFFICIENCY OF REVENUES –  
ST. JOHNS RIVER POWER PARK**

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**FROM:** Paul E. McElroy, Managing Director/CEO

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**TO:** JEA Finance and Audit Committee

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Kelly Flanagan, Chair  
Tom Petway  
Ed Burr  
Husein Cumber

**BACKGROUND:**

JEA's St. Johns River Power Park System Bond Resolution contains various covenants that JEA is obligated to its bondholders to perform. Two of such covenants require JEA to make an annual determination by resolution, at least six months prior to the beginning of the next fiscal year, that the estimated revenues for the next fiscal year will be sufficient to cover the required expenditures for such fiscal year.

**DISCUSSION:**

JEA staff has made the determination required.

**RECOMMENDATION:**

JEA staff recommends the Finance and Audit Committee recommend Board approval and adoption of Resolution No. 2017-27 determining that the estimated revenues for the Fiscal Year ending September 30, 2018, will be sufficient for their intended purposes.

---

Paul E. McElroy, Managing Director/CEO

PEM/MHD/JEO/LMB

Resolution No. 2017-27

**A RESOLUTION MAKING A DETERMINATION AS TO THE SUFFICIENCY OF ESTIMATED REVENUES OF THE ELECTRIC SYSTEM TO PROVIDE FOR THE PAYMENTS AND OTHER REQUIREMENTS OF SECTION 721 AND SECTION 713 OF JEA ST. JOHNS RIVER POWER PARK SYSTEM REVENUE BOND RESOLUTION**

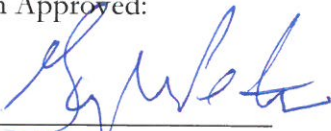
**WHEREAS**, Sections 721 and 713 of JEA St. Johns River Power Park System Revenue Bond Resolution (the "Resolution") require that JEA no less than six months prior to the beginning of each fiscal year complete a review of its financial condition for the purpose of estimating whether the rates, fees, charges and other income and receipts from the operation of the Electric System, including investment income included as revenues, for such fiscal year, will be sufficient to provide all of the payments and meet all other requirements in accordance with Section 721 and Section 713 of the Resolution; and

**WHEREAS**, such a review of JEA's financial condition has been made resulting in a determination that the estimated rates, fees, charges and other income and receipts from the operation of the Electric System, including investment income included as revenues, during the Fiscal Year ending September 30, 2018, will be sufficient to provide all of the payments and meet all other requirements for the Fiscal Year ending September 30, 2018 in accordance with Section 721 and Section 713 of the Resolution now, therefore,

**BE IT RESOLVED** by JEA that a determination has been made that the estimated rates, fees, charges and other income and receipts from the operation of the Electric System, including investment income included as revenues, during the Fiscal Year ending September 30, 2018, will be sufficient to provide all of the payments and meet all other requirements for the Fiscal Year ending September 30, 2018 in accordance with Section 721 and Section 713 of the Resolution.

\_\_\_\_\_  
JEA Chair

Form Approved:



\_\_\_\_\_  
Assistant General Counsel

II. I. 2.

Recap of Recent JEA Electric System Advance Fixed  
Rate Debt Refunding Delegated Transactions



Building Community

**AGENDA ITEM SUMMARY**

February 27, 2017

**SUBJECT:** RECAP OF RECENT JEA ELECTRIC SYSTEM ADVANCE FIXED RATE DEBT REFUNDING DELEGATED TRANSACTIONS

**Purpose:**  Information Only  Action Required  Advice/Direction

**Issue:** On November 15, 2016, the Board adopted Resolution No. 2016-17 and 2016-18, relating to the Electric System Senior and Subordinated Revenue Bonds, respectively.

**Significance:** The following resolutions provided the Managing Director/CEO the authorization to price and execute a fixed rate advance refunding transaction within the stated parameters.

**Effect:** Pursuant to Resolution No. 2016-17 and 2016-18, JEA staff priced approximately \$18.7 million in senior and \$71.7 million in subordinated fixed rate bonds on January 31, 2017. The Managing Director/CEO executed the bond purchase agreement for the Electric System Revenue Bonds, Series Three 2017A and Subordinated 2017 Series A on February 1, 2017.

**Cost or Benefit:** The Electric System advance refunding produced \$4.5 million of present value savings and generates approximately \$1.1 million of average annual debt service savings.

**Recommended Board action:** No Board action is required. For information only.

**For additional information, contact:** Joe Orfano, Treasurer, 665-4541

Submitted by: PEM/MHD/JEO/OCD

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**Commitments to Action**

- 1** Earn Customer Loyalty
- 2** Deliver Business Excellence
- 3** Develop an Unbeatable Team



**INTER-OFFICE MEMORANDUM**

February 27, 2017

**SUBJECT:** RECAP OF RECENT JEA ELECTRIC SYSTEM ADVANCE FIXED RATE DEBT REFUNDING DELEGATED TRANSACTIONS

**FROM:** Paul E. McElroy, Managing Director/CEO

**TO:** JEA Finance and Audit Committee

Kelly Flanagan, Chair  
Tom Petway  
Ed Burr  
Husein Cumber

**BACKGROUND:**

On November 15, 2016, the Board adopted Resolution No. 2016-17 and 2016-18, relating to the Electric System Senior and Subordinated Revenue Bonds, respectively, which provided the Managing Director/CEO the authorization to price and execute a fixed rate advance refunding bond transaction within stated parameters. The resolutions, in addition to providing parameters, also (i) approved the form of and authorized the execution of various legal documents that were prepared by counsel in connection with the issuance of the authorized bonds; and (ii) provided that the bonds must be sold no later than June 30, 2017.

**DISCUSSION:**

Pursuant to Resolution No. 2016-17 and 2016-18, JEA staff priced approximately \$18.7 million in senior and \$71.7 million in subordinated fixed rate bonds on January 31, 2017. Bond refunding proceeds were utilized to redeem approximately \$19.0 million of senior and \$68.1 million of subordinated fixed rate bonds. The Managing Director/CEO executed the bond purchase agreement for the Electric System Revenue Bonds, Series Three 2017A and Subordinated 2017 Series A on February 1, 2017.

The attached presentation shows the actual results as compared to the delegated parameters for the Electric System Revenue Bonds, Series Three 2017A and Subordinated 2017 Series A.

J.P. Morgan served as senior manager, Nixon Peabody LLP served as JEA's bond counsel and Public Financial Management served as JEA's financial advisor for the refunding transaction.

**RECOMMENDATION:**

No Board action is required. For information only .

\_\_\_\_\_  
Paul E. McElroy, Managing Director/CEO

PEM/MHD/JEO/OCD

II. I. 2.  
3/13/2017

Return  
to Agenda



## **FY17 BOND REFUNDING ACTIVITY AND RESULTS**

*JEA Finance and Audit Committee Meeting*

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March 13, 2017



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## FINANCING TEAM

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### JEA

Joe Orfano, Treasurer

Chris Cicero, Bond Compliance Specialist

Lori Boynton , Bond Compliance Specialist

Robert Hahn, Bond Administration Specialist

Oliver Domingo, Debt Financial Analyst

Juli Crawford, Manager Financial Planning & Rates

Tucker Mills, Financial Associate

### Underwriting Group:

*J.P. Morgan*

Citigroup

Goldman, Sachs & Co.

RBC Capital Markets

US Bancorp

Wells Fargo Securities

### Bond Counsel:

Nixon Peabody, LLP

### Financial Adviser:

Public Financial Management, Inc.

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## SUMMARY OF REFUNDING RESULTS

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### Series Three 2017A and Sub 2017 Series A (2/14/17)

- Total bond par amount: \$90.4 million
- Gross savings: \$9.5 million
- Present value savings: \$4.5 million (5.1%)

*Note: the advance refunding delegation resolution approved in November eliminated the 7.50% minimum NPV parameter*

## ELECTRIC SYSTEM RESOLUTION PARAMETERS

	Delegated Parameters	2017A Senior	2017A Subordinated
<b>Par Amount</b>	< \$150.0m	\$18.7m	\$71.7m
<b>True Interest Cost</b>	< 3%	1.466%	1.431%
<b>Weighted Average Life</b>	5.792 (Sen) & 5.953 (Sub)	2.631	1.092
<b>Final Maturity Date</b>	Not later than 10/1/19	10/1/19	10/1/19

---

## FY17 ANTICIPATED REFUNDING TRANSACTION SCHEDULE

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System	Type	Closing Date	Estimated Par Amount
Water & Sewer	Current	4 <sup>th</sup> Quarter FY17	\$152.0m
Electric	Current	4 <sup>th</sup> Quarter FY17	\$152.0m
SJRPP	Current	4 <sup>th</sup> Quarter FY17	\$78.0m

**II. I. 3.**

**Electric System and Water and Sewer System  
Reserve Fund Quarterly Report**



Building Community

### AGENDA ITEM SUMMARY

February 22, 2017

<b>SUBJECT:</b>	<b>ELECTRIC SYSTEM AND WATER AND SEWER SYSTEM RESERVE FUND QUARTERLY REPORT</b>
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<b>Purpose:</b>	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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**Issue:** Electric System and Water and Sewer System Reserve Fund Quarterly Report as of December 31, 2016. This report is provided for transparency into JEA’s reserve fund accounts and various cash balances.

**Significance:** High. JEA’s liquidity position is an important balance between operating security and flexibility, financial metrics, and carrying cost of cash.

**Effect:** JEA operational needs, bond resolution requirements, and credit ratings.

**Cost or Benefit:** JEA’s reserves are an important component of operating security and flexibility, a critical credit ratings factor.

**Recommended Board action:** No action required; provided for information only.

**For additional information, contact:** Joe Orfano, Treasurer, 665-4541

Submitted by: PEM/MHD/JEO/BHG

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---	--	--

#### Commitments to Action

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**



**INTER-OFFICE MEMORANDUM**

February 22, 2017

**SUBJECT:** **ELECTRIC SYSTEM AND WATER AND SEWER SYSTEM RESERVE  
FUND QUARTERLY REPORT**

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**FROM:** Paul E. McElroy, Managing Director/CEO

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**TO:** JEA Finance and Audit Committee

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Kelly Flanagan, Chair  
Tom Petway  
Ed Burr  
Husein Cumber

**BACKGROUND:**

At the May 7, 2012 Finance and Audit Committee meeting, JEA staff presented schedules reflecting historical and projected activity in JEA's Electric System and Water and Sewer System unrestricted and restricted fund balances. Many of these reserves are required under the respective System's bond resolutions or under Board approved policies such as Pricing Policy or Debt Management Policy. JEA staff also stated that these schedules would be provided to the JEA Board on a quarterly basis beginning in August 2012.

**DISCUSSION:**

Attached are the reserve fund schedules referenced above for the period ending December 31, 2016.

**RECOMMENDATION:**

No action required; provided for information only.

---

Paul E. McElroy, Managing Director/CEO

PEM/MHD/JEO/BHG

**Electric System and Water & Sewer System Reserve and Fund Balances (1)**

For the Fiscal Quarter Ending December 31, 2016  
(In Thousands of Dollars)

	<u>Fiscal Year</u> <u>FY 2013</u>	<u>Fiscal Year</u> <u>FY 2014</u>	<u>Fiscal Year</u> <u>FY 2015</u>	<u>Fiscal Year</u> <u>FY 2016</u>	<u>Fiscal Year</u> <u>FY 2017</u>	<u>Detail</u> <u>Page #</u>
<b>Electric System</b>						
<b>Unrestricted</b>						
Operations/Revenue Fund	\$ 46,588	\$ 43,178	\$ 46,624	\$ 56,665	\$ 44,924	
Debt Management Strategy Reserve	-	-	-	-	-	3
Self Insurance Reserve Fund						
• Property	10,000	10,000	10,000	10,000	10,000	4
• Employee health insurance	15,914	10,749	10,937	11,179	11,179	5
Rate Stabilization						
• Fuel	108,289	105,457	150,742	180,115	127,960	6
• DSM/conservation	3,891	3,570	2,886	3,515	3,235	7
• Environmental	10,023	16,639	23,430	29,975	35,950	8
• Debt Management	42,126	42,126	42,126	42,126	29,884	9
• Non-Fuel Purchased Power	-	12,000	38,000	34,400	26,194	10
Environmental	18,662	18,662	18,662	18,556	18,556	11
Customer Deposits	44,882	42,688	42,389	41,084	41,863	12
<b>Total Unrestricted</b>	<b>300,375</b>	<b>305,069</b>	<b>385,796</b>	<b>427,615</b>	<b>349,744</b>	
<b>Days of Cash on Hand (2)</b>	<b>172</b>	<b>166</b>	<b>225</b>	<b>270</b>	<b>212</b>	
<b>Restricted</b>						
Debt Service Funds (Sinking Funds)	101,305	120,458	134,927	136,232	168,025	13
Debt Service Reserve Funds	64,841	64,841	64,595	60,582	60,582	14
Renewal and Replacement Funds/OCO (3)	140,486	146,910	145,711	192,179	173,665	15
Construction Funds	5,184	42	-	-	-	16
<b>Total Restricted</b>	<b>311,816</b>	<b>332,251</b>	<b>345,233</b>	<b>388,993</b>	<b>402,272</b>	
<b>Total Electric System</b>	<b>\$ 612,191</b>	<b>\$ 637,320</b>	<b>\$ 731,029</b>	<b>\$ 816,608</b>	<b>\$ 752,016</b>	
<b>Water and Sewer System</b>						
<b>Unrestricted</b>						
Operations/Revenue Fund	\$ 5,886	\$ 9,227	\$ 22,588	\$ 42,948	\$ 46,251	
Debt Management Strategy Reserve	304	304	-	-	-	17
Rate Stabilization						
• Debt Management	20,290	20,291	20,290	20,290	14,209	18
• Environmental				1,699	1,497	19
Customer Deposit	13,860	12,787	13,255	13,910	13,911	20
<b>Total Unrestricted</b>	<b>40,340</b>	<b>42,609</b>	<b>56,133</b>	<b>78,847</b>	<b>75,868</b>	
<b>Days of Cash on Hand (2)</b>	<b>395</b>	<b>438</b>	<b>466</b>	<b>528</b>	<b>420</b>	
<b>Restricted</b>						
Debt Service Funds (Sinking Funds)	80,317	75,019	67,720	65,410	82,870	21
Debt Service Reserve Funds	119,915	116,829	108,849	108,086	107,488	22
Renewal and Replacement Funds						
• R&R/OCO (4)	78,689	59,295	37,337	76,020	48,660	23
• Capacity Fees/State Revolving Loans	60,360	76,887	90,912	103,411	75,921	24
• Environmental	(9,857)	5,299	19,245	2,659	294	25
Construction Funds	2,305	326	664	152	-	26
<b>Total Restricted</b>	<b>331,729</b>	<b>333,655</b>	<b>324,727</b>	<b>355,738</b>	<b>315,233</b>	
<b>Total Water &amp; Sewer System</b>	<b>\$ 372,069</b>	<b>\$ 376,264</b>	<b>\$ 380,860</b>	<b>\$ 434,585</b>	<b>\$ 391,101</b>	

(1) This report does not include Scherer, SJRPP, DES or funds held on behalf of the City of Jacksonville.

(2) Days of Cash on Hand includes R&R Fund in the cash balances, and includes the Contribution to the City of Jacksonville General Fund with the Operating Expenses net of Depreciation.

(3) Balance includes \$47,000 of Electric System Renewal and Replacement Reserve for MADS calculation.

(4) Balance includes \$20,000 of Water & Sewer System Renewal and Replacement Reserve for MADS calculation.



## Funds Established Per the Bond Resolutions

Fund/Account Description	Electric System	Water and Sewer System
Revenue Fund	Net Revenues (i.e. Revenues minus Cost of Operation and Maintenance), pledged to bondholders, balance available for any lawful purpose after other required payments under the bond resolution have been made.	Pledged to bondholders; balance available for any lawful purpose after other required payments under the bond resolution have been made, however, revenues representing impact fees may only be used to finance costs of expanding the system or on the debt service on bonds issued for such expansion purposes.
Rate Stabilization Fund	Not pledged to bondholders; available for any lawful purpose.	Pledged to bondholders; able to transfer to any other fund or account established under the resolution or use to redeem Bonds.
Subordinated Rate Stabilization Fund	Pledged to bondholders; available for any lawful purpose.	Pledged to bondholders; available for any lawful purpose.
Debt Service Account	Pledged to bondholders; used to pay debt service on bonds.	Pledged to bondholders; used to pay debt service on bonds.
Debt Service Reserve Account	Pledged to bondholders; used to pay debt service on bonds in the event revenues were insufficient to make such payments.	Pledged to bondholders; used to pay debt service on bonds in the event revenues were insufficient to make such payments.
Renewal and Replacement Fund	Not pledged to bondholders but required amounts deposited into this Fund pursuant to the bond resolution are limited as to what they can be spent on (e.g. capital expenditures and, bond redemptions) .	Pledged to bondholders; but required amounts deposited into this Fund pursuant to the bond resolution are limited as to what they can be spent on (e.g. capital expenditures and, bond redemptions).
Construction Fund	Pledged to bondholders; applied to the payment of costs of the system.	Pledged to bondholders; applied to the payment of costs of the system.
Subordinated Construction Fund	Pledged to bondholders; applied to the payment of costs of the system	Pledged to bondholders; applied to the payment of costs of the system
Construction Fund - Construction Reserve Account	Pledged to bondholders; applied to fund downgraded reserve fund sureties.	Pledged to bondholders; applied to fund downgraded debt service reserve fund sureties.
General Reserve Fund	Not pledged to bondholders; available for any lawful purpose.	n/a

Regardless of whether the Funds/Accounts are designated as pledged, in the event that monies in the Debt Service Account are insufficient to pay debt service on the bonds, pursuant to the respective bond resolutions, amounts in the various Funds/Accounts are required to be transferred to the respective Debt Service Accounts and used to pay debt service.

## Electric System Debt Management Reserve

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Debt Management Policy

Metric: One-half percent of the par amount of outstanding variable debt (adjusted for variable to fixed rate long term swaps). Capped at 3% of the par amount of outstanding variable debt

Definitions and Goals: For the period FY 04 through FY 09, an annual budgeted reserve contribution for variable rate debt was made. The calculation was based upon one half percent of the par amount of outstanding variable rate debt (adjusted for variable rate to fixed rate long term swaps). The budget reserve was capped at three percent of the par amount of the outstanding variable rate debt. The reserve can be used for any lawful purpose including debt service, debt repayment, and capital outlay and must be approved in writing by the CEO.

	Actual as of 12/31/2016		Full Year			Projection		
	Current	Year -to-Date	2017	2017	Prior Year	2018	2019	2020
	Quarter		Forecast	Budget	Actual			
<i>(In Thousands)</i>								
Opening Balance	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	\$ -
Additions:								
Contributions				N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Withdrawals			-	N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	\$ -

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 12,257	\$ 12,257	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,903	\$ 12,257
Additions:									
Contributions	-	-	-	-	-	-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Withdrawals	-	12,257				-	6,129	6,129	12,257
Sub-total	\$ -	\$ 12,257	\$ -	\$ -	\$ -	-	-	-	-
Ending balance	\$ 12,257	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,451	\$ 12,257

**Observations:**

- This reserve fund discontinued contributions in FY 2009 due to adoption of new policy. Reserve activity reflected in RSF - Debt Management for that year.
- A portion of this reserve was used to pay on interest rate swap terminations in connection with a refunding of variable rate debt in February 2013, and the remainder was used in Sept 2013 for a defeasance.

## Electric System Self Insurance - Property

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Budget Appropriation

Metric: Budgeted Deposit = \$10 million

Definitions and Goals: JEA's self-insurance fund is for catastrophic damage to JEA's electric lines (transmission and distribution) caused by the perils of hurricanes, tornadoes, and ice storms. This fund was established in October, 1992, as an alternative to JEA's procurement of commercial property insurance.

<i>(In Thousands)</i>	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	<u>2018</u>	<u>2019</u>	<u>2020</u>
Opening Balance	\$ 10,000	\$ 10,000	\$ 10,000	N/A	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Additions:								
Reserve Contribution				N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deductions:								
Reserve Withdrawal				N/A				
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ 10,000	\$ 10,000	\$ 10,000	N/A	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000

	Historical					Statistical			
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	Low	Median	Mean	High
Opening Balance	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Additions:									
Reserve Contribution						-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Reserve Withdrawal						-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Ending balance	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000

## Electric System Self Insurance - Employee Health Insurance

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Florida Statute for self insured government plans

Metric: An actuary calculates amount annually

Definitions and Goals: This reserve fund is a requirement under Florida Statute 112.08 that requires self insured government plans to have enough money in a reserve fund to cover the Incurred But Not Reimbursed (IBNR) claims and a 60 day surplus of claims. The IBNR claims are claims that would still need to be paid if the company went back to a fully insured plan or dropped coverage all together. An actuary calculates this amount annually.

<i>(In Thousands)</i>	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	<u>2018</u>	<u>2019</u>	<u>2020</u>
Opening Balance	\$ 11,179	\$ 11,179	\$ 11,179	N/A	\$ 10,937	\$ 11,179	\$ 11,179	\$ 11,179
Additions:								
Employee Contributions	1,343	1,343	8,058	N/A	5,460	8,703	9,399	10,151
Retiree & Other Contributions	1,754	1,754	6,402		5,694	6,914	7,467	8,065
Employer Contributions	4,899	4,899	23,756		24,231	25,656	27,709	29,925
Sub-total	\$ 7,996	\$ 7,996	\$ 38,216	\$ -	\$ 35,385	\$ 41,273	\$ 44,575	\$ 48,141
Deductions:								
Payments for Claims	7,439	7,439	35,722	N/A	32,946	38,580	41,666	44,999
Actuary & Other Payments	665	665	2,494		2,197	2,693	2,909	3,141
Sub-total	\$ 8,104	\$ 8,104	\$ 38,216	\$ -	\$ 35,143	\$ 41,273	\$ 44,575	\$ 48,141
Ending Balance	\$ 11,071	\$ 11,071	\$ 11,179	N/A	\$ 11,179	\$ 11,179	\$ 11,179	\$ 11,179

<i>(In Thousands)</i>	Historical					Statistical			
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	Low	Median	Mean	High
Opening Balance	\$ 12,505	\$ 15,440	\$ 15,914	\$ 10,749	\$ 10,937	\$ 10,749	\$ 12,505	\$ 13,109	\$ 15,914
Additions:									
Employee Contributions	6,147	5,893	4,573	5,447	5,460	4,573	5,460	5,504	6,147
Retiree & Other Contributions	6,910	5,701	5,188	5,141	5,694	5,141	5,694	5,727	6,910
Employer Contributions	21,155	20,629	14,252	22,220	24,231	14,252	21,155	20,497	24,231
Sub-total	\$ 34,212	\$ 32,223	\$ 24,013	\$ 32,808	\$ 35,385				
Deductions:									
Payments for Claims	29,220	29,354	27,157	30,408	32,946	27,157	29,354	29,817	32,946
Actuary & Other Payments	2,057	2,395	2,021	2,212	2,197	2,021	2,197	2,176	2,395
Sub-total	\$ 31,277	\$ 31,749	\$ 29,178	\$ 32,620	\$ 35,143				
Ending balance	\$ 15,440	\$ 15,914	\$ 10,749	\$ 10,937	\$ 11,179	\$ 10,749	\$ 11,179	\$ 12,844	\$ 15,914

**Observations:**

- Self Insurance for Employee Health Insurance began in July 2009.
  - Projections are using the 8% rate of increase based on information obtained from the Actuarial Memorandum and Report.
- Calendar year data is presented above in fiscal year format.

## Electric System Rate Stabilization - Fuel Management

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: Targeted 15% of total annual projected energy costs

Definitions and Goals: The Electric System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which contributions or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Fund provides a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Established pursuant to the section VII and Section IX of the Pricing Policy, the Fuel Reserve target is 15% of the greater of (a) the maximum 12-month historical fuel cost or (b) the projected 12-month fuel cost. Withdrawals from the Rate Stabilization Fund for fuel stabilization are limited to the following purposes: (a) to reduce the variable fuel rate charge to the customers for a determined period of time; (b) to reduce the excess of the actual fuel and purchased power expense for the fiscal year over the variable fuel rate revenues; (c) to be rebated back to the customers as a credit against the electric bill; and/or (d) to reimburse the costs associated with any energy risk management activities.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 180,115	\$ 180,115	\$ 180,115	N/A	\$ 150,742	\$ 127,960	\$ 85,227	\$ 76,362
Additions:								
Contributions			-	37,705	85,979			10,792
Sub-total	\$ -	\$ -	\$ -	\$ 37,705	\$ 85,979	\$ -	\$ -	\$ 10,792
Withdrawals	2,793	2,793	52,155		-	42,733	8,865	
Customer Fuel Rebate Credit					56,606			
Sub-total	\$ 2,793	\$ 2,793	\$ 52,155	\$ -	\$ 56,606	\$ 42,733	\$ 8,865	\$ -
Ending Balance	\$ 177,322	\$ 177,322	\$ 127,960	N/A	\$ 180,115	\$ 85,227	\$ 76,362	\$ 87,154

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 24,990	\$ 92,362	\$ 108,289	\$ 105,457	\$ 150,742	\$ 24,990	\$ 105,457	\$ 96,368	\$ 150,742
Additions:									
Contributions	76,763	52,523	22,496	95,224	85,979	22,496	76,763	66,597	95,224
Sub-total	\$ 76,763	\$ 52,523	\$ 22,496	\$ 95,224	\$ 85,979	-	-	-	-
Deductions:									
Withdrawals	9,391					9,391	9,391	9,391	9,391
Customer Fuel Rebate Credit		36,596	25,328	49,939	56,606	25,328	43,268	42,117	56,606
Sub-total	\$ 9,391	\$ 36,596	\$ 25,328	\$ 49,939	\$ 56,606	-	-	-	-
Ending balance	\$ 92,362	\$ 108,289	\$ 105,457	\$ 150,742	\$ 180,115	\$ 92,362	\$ 108,289	\$ 127,393	\$ 180,115

Observations:

- Actual and historical numbers reflect fuel recovery contributions and withdrawals on a gross basis. Forecast and projected numbers reflected on a net basis. The fuel recovery charge ended 12/31/11.

## Electric System Rate Stabilization - Demand Side Management (DSM)

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: \$0.50 per 1,000 kWh plus \$0.01 per kWh residential conservation charge for consumption greater than 2,750 KWh monthly

Definitions and Goals: The Electric System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which contributions or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Fund provides a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Pursuant to section VII of the Pricing Policy, \$0.50 per 1,000 kWh plus \$0.01 per kWh residential conservation charge for consumption greater than 2,750 kWh monthly. These revenue sources are to fund demand side management and conservation programs.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 3,515	\$ 3,515	\$ 3,515	N/A	\$ 2,886	\$ 3,235	\$ 2,848	\$ 2,461
Additions:								
Contributions	1,456	1,456	6,891	7,200	7,232	6,817	6,817	6,817
Other								
Sub-total	\$ 1,456	\$ 1,456	\$ 6,891	\$ 7,200	\$ 7,232	\$ 6,817	\$ 6,817	\$ 6,817
Withdrawals	1,238	1,238	7,171	8,117	6,603	7,204	7,204	7,204
Sub-total	\$ 1,238	\$ 1,238	\$ 7,171	\$ 8,117	\$ 6,603	\$ 7,204	\$ 7,204	\$ 7,204
Ending Balance	\$ 3,733	\$ 3,733	\$ 3,235	N/A	\$ 3,515	\$ 2,848	\$ 2,461	\$ 2,074

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 10,703	\$ 6,912	\$ 3,891	\$ 3,570	\$ 2,886	\$ 2,886	\$ 3,891	\$ 5,592	\$ 10,703
Additions:									
Contributions	6,657	6,683	6,929	7,059	7,232	6,657	6,929	6,912	7,232
Transfer from Rev Fd						-	-	-	-
Sub-total	\$ 6,657	\$ 6,683	\$ 6,929	\$ 7,059	\$ 7,232				
Deductions:									
Withdrawals	10,448	9,704	7,250	7,743	6,603	6,603	7,743	8,350	10,448
Sub-total	\$ 10,448	\$ 9,704	\$ 7,250	\$ 7,743	\$ 6,603				
Ending balance	\$ 6,912	\$ 3,891	\$ 3,570	\$ 2,886	\$ 3,515	\$ 2,886	\$ 3,570	\$ 4,155	\$ 6,912

Observations:

- Rate Stabilization Fund for Demand Side Management began in April 2009.

## Electric System Rate Stabilization - Environmental

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: \$0.62 per 1,000 kWh

Definitions and Goals: The Electric System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which contributions or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Fund provides a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Deposits to this fund began in fiscal year 2010 for amounts representing the Electric System Environmental Charge (\$0.62 per 1000 kWh). Withdrawals from this reserve will represent payments for regulatory initiatives such as the premium cost of renewable energy generation which is considered available for JEA's capacity plans.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 29,975	\$ 29,975	\$ 29,975	N/A	\$ 23,430	\$ 35,950	\$ 42,050	\$ 46,930
Additions:								
Contributions	1,672	1,672	7,422	7,564	7,700	7,320	7,320	7,320
Sub-total	\$ 1,672	\$ 1,672	\$ 7,422	\$ 7,564	\$ 7,700	\$ 7,320	\$ 7,320	\$ 7,320
Withdrawals			1,447	2,078	1,155	1,220	2,440	3,660
Sub-total	\$ -	\$ -	\$ 1,447	\$ 2,078	\$ 1,155	\$ 1,220	\$ 2,440	\$ 3,660
Ending Balance	\$ 31,647	\$ 31,647	\$ 35,950	N/A	\$ 29,975	\$ 42,050	\$ 46,930	\$ 50,590

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 4,232	\$ 5,343	\$ 10,023	\$ 16,639	\$ 23,430	\$ 4,232	\$ 10,023	\$ 11,933	\$ 23,430
Additions:									
Contributions	2,436	5,650	7,395	7,586	7,700	2,436	7,395	6,153	7,700
Sub-total	\$ 2,436	\$ 5,650	\$ 7,395	\$ 7,586	\$ 7,700	-	-	-	-
Deductions:									
Withdrawals	1,325	970	779	795	1,155	779	970	1,005	1,325
Sub-total	\$ 1,325	\$ 970	\$ 779	\$ 795	\$ 1,155	-	-	-	-
Ending balance	\$ 5,343	\$ 10,023	\$ 16,639	\$ 23,430	\$ 29,975	\$ 5,343	\$ 16,639	\$ 17,082	\$ 29,975

Observations:

- Rate Stabilization Fund for Environmental began in June 2010.

## Electric System Rate Stabilization - Debt Management

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: Difference in actual interest rates for interest expense on the unhedged variable rate debt as compared to the budgeted assumptions for interest expense on unhedged variable rate debt

Definitions and Goals: The Electric System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which deposits or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Funds provide a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Deposits are made to this Rate Stabilization Fund for the purpose of managing JEA's debt portfolio. Deposits to this reserve reflect the difference in the actual interest rates for interest expense on the unhedged variable rate debt as compared to the budgeted assumptions for interest expense on the unhedged variable rate debt. Additionally, deposits can be made from excess debt service budget over the actual debt service expense for any fiscal year. However, the total amounts deposited (in addition to actual debt service costs for the fiscal year) cannot exceed the total amount of the budgeted debt service for any fiscal year. At a minimum, 50% of the calculated reserve contribution, if any, will be recorded and deposited each fiscal year. Debt and Investment Committee will review and record at their option an additional contribution amount, up to the full value of the calculated reserve contribution (the remaining 50%). The reserve contributions will be calculated on a system by system basis; however, based on the calculation, any mandatory deposit will exclude the District Energy System. The reserve contributions shall cease in the event the reserve balance exceeds the cap of five percent of the par amount of the total outstanding variable rate debt of all systems. Withdrawals from the Rate Stabilization Fund for Debt Management Strategy can be made for expenses related to market disruption in the capital markets, disruption in availability of credit or unanticipated credit expenses, or to fund variable interest costs in excess of budget.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 42,126	\$ 42,126	\$ 42,126	N/A	\$ 42,126	\$ 29,884	\$ 29,884	\$ 29,884
Additions:								
Contributions				N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Withdrawals			12,242		-			
Sub-total	\$ -	\$ -	\$ 12,242	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ 42,126	\$ 42,126	\$ 29,884	N/A	\$ 42,126	\$ 29,884	\$ 29,884	\$ 29,884

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 35,930	\$ 41,611	\$ 42,126	\$ 42,126	\$ 42,126	\$ 35,930	\$ 42,126	\$ 40,784	\$ 42,126
Additions:									
Contributions	5,681	6,581				5,681	6,131	6,131	6,581
Sub-total	\$ 5,681	\$ 6,581	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Withdrawals		6,066				6,066	6,066	6,066	6,066
Sub-total	\$ -	\$ 6,066	\$ -	\$ -	\$ -	-	-	-	-
Ending balance	\$ 41,611	\$ 42,126	\$ 42,126	\$ 42,126	\$ 42,126	\$ 41,611	\$ 42,126	\$ 42,023	\$ 42,126

Observations:

- Rate Stabilization Fund for Debt Management began in May 2009.



## Electric System Rate Stabilization - Non-Fuel Purchased Power

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: Difference in actual interest rates for interest expense on the unhedged variable rate debt as compared to the budgeted assumptions for interest expense on unhedged variable rate debt

Definitions and Goals: The Electric System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which deposits or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Funds provide a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Deposits to the Rate Stabilization Fund for Non-Fuel Purchased Power Stabilization during the fiscal year are made with the approval of the CEO or CFO, provided such deposits are not in excess of JEA's total operating budget for the current fiscal year. Withdrawals from the Rate Stabilization Fund for Non-Fuel Purchased Power are to reimburse the costs associated with any non-fuel purchased power activities. Withdrawals can be made as necessary during the fiscal year and requires the approval of the CEO or the CFO.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 34,400	\$ 34,400	\$ 34,400	N/A	\$ 38,000	\$ 26,194	\$ 14,449	\$ -
Additions:								
Contributions					-	-		
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Withdrawals	1,540	1,540	8,206	9,232	3,600	11,745	14,449	
Sub-total	\$ 1,540	\$ 1,540	\$ 8,206	\$ 9,232	\$ 3,600	\$ 11,745	\$ 14,449	\$ -
Ending Balance	\$ 32,860	\$ 32,860	\$ 26,194	N/A	\$ 34,400	\$ 14,449	\$ -	\$ -

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ -	\$ -	\$ -	\$ 12,000	\$ 38,000	\$ -	\$ -	\$ 10,000	\$ 38,000
Additions:									
Contributions			12,000	26,000		12,000	19,000	19,000	26,000
Sub-total	\$ -	\$ -	\$ 12,000	\$ 26,000	\$ -	-	-	-	-
Deductions:									
Withdrawals					3,600	3,600	3,600	3,600	3,600
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 3,600	-	-	-	-
Ending balance	\$ -	\$ -	\$ 12,000	\$ 38,000	\$ 34,400	\$ -	\$ 12,000	\$ 16,880	\$ 38,000

Observations:

- The Non-Fuel Purchased Power Rate Stabilization Fund began in FY 2014.

## Electric System Environmental Reserve

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Pricing Policy

Metric: Target equals the balance in the environmental liability account

Definitions and Goals: This reserve represents the initial amounts collected from the Electric System Environmental Charge and will be deposited until the balance in this reserve equals the balance in the environmental liability account. Withdrawals from this account will represent payments for these liabilities.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 18,556	\$ 18,556	\$ 18,556	N/A	\$ 18,662	\$ 18,556	\$ 18,556	\$ 18,556
Additions:								
Contributions			-	N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Withdrawals			-	N/A	106			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 106	\$ -	\$ -	\$ -
Ending Balance	\$ 18,556	\$ 18,556	\$ 18,556	N/A	\$ 18,556	\$ 18,556	\$ 18,556	\$ 18,556

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 20,899	\$ 18,359	\$ 18,662	\$ 18,662	\$ 18,662	\$ 18,359	\$ 18,662	\$ 19,049	\$ 20,899
Additions:									
Contributions		970				970	970	970	970
Sub-total	\$ -	\$ 970	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Withdrawals	2,540	667			106	106	667	1,104	2,540
Sub-total	\$ 2,540	\$ 667	\$ -	\$ -	\$ 106	-	-	-	-
Ending balance	\$ 18,359	\$ 18,662	\$ 18,662	\$ 18,662	\$ 18,556	\$ 18,359	\$ 18,662	\$ 18,580	\$ 18,662

Observations:

- The Environmental Reserve began in FY 2008.

## Electric System Customer Deposits

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Management Directive 302 Credit and Collections and Internal Procedure CR40400 MBC302

Metric: Internal procedure CR40400 MBC302 Credit and Collections

Definitions and Goals: Pursuant to internal procedure CR40400 MBC302 Credit and Collections, JEA accesses customers a deposit that may be used to offset any future unpaid amounts during the course of providing utility service to a customer.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 41,084	\$ 41,084	\$ 41,084	N/A	\$ 42,389	\$ 41,863	\$ 41,863	\$ 41,863
Additions:								
Net Customer Activity	779	779	779	N/A	-			
Loan Repayment to ES Revenue Fund					-			
Sub-total	\$ 779	\$ 779	\$ 779	\$ -	\$ -	\$ -	\$ -	\$ -
Net Customer Activity			-		1,305			
Loan to ES Revenue Fund				N/A	-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 1,305	\$ -	\$ -	\$ -
Ending Balance	\$ 41,863	\$ 41,863	\$ 41,863	N/A	\$ 41,084	\$ 41,863	\$ 41,863	\$ 41,863

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 42,767	\$ 43,454	\$ 44,882	\$ 42,688	\$ 42,389	\$ 42,389	\$ 42,767	\$ 43,236	\$ 44,882
Additions:									
Net Customer Activity	905	1,430	-	-	-	905	1,168	1,168	1,430
Loan Repayment to ES Revenue Fund						-	-	-	-
Sub-total	\$ 905	\$ 1,430	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Net Customer Activity	218	2	2,194	299	1,305	2	299	804	2,194
Loan to ES Revenue Fund						-	-	-	-
Sub-total	\$ 218	\$ 2	\$ 2,194	\$ 299	\$ 1,305				
Ending balance	\$ 43,454	\$ 44,882	\$ 42,688	\$ 42,389	\$ 41,084	\$ 41,084	\$ 42,688	\$ 42,899	\$ 44,882

Observations:

- JEA is in the process of implementing a prepaid meter program which could reduce customer deposits starting in Fiscal Year 2014.

## Electric System Debt Service Sinking Fund

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution

Metric: Accrued interest and principal currently payable on fixed and variable rate bonds pursuant to the Bond Resolutions

Definitions and Goals: JEA is required monthly to fund from revenues an amount equal to the aggregate of the Debt Service Requirement for senior and subordinated bonds for such month into this account. On or before such interest payment date, JEA shall pay out of this account to the paying agents the amount required for the interest and principal due on such date.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
	Opening Balance	\$ 136,232	\$ 136,232	\$ 136,232	N/A	\$ 134,927	\$ 168,025	\$ 161,153
Additions:								
Revenue Fund Deposits	42,572	42,572	217,612		177,847	210,807	201,948	141,059
Bond funded interest					-			
Sub-total	\$ 42,572	\$ 42,572	\$ 217,612	\$ -	\$ 177,847	\$ 210,807	\$ 201,948	\$ 141,059
Principal and Int Payments	137,066	137,066	185,819	N/A	176,542	217,679	213,302	199,191
Sub-total	\$ 137,066	\$ 137,066	\$ 185,819	\$ -	\$ 176,542	\$ 217,679	\$ 213,302	\$ 199,191
Ending Balance	\$ 41,738	\$ 41,738	\$ 168,025	N/A	\$ 136,232	\$ 161,153	\$ 149,799	\$ 91,667

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 125,988	\$ 107,754	\$ 101,305	\$ 120,458	\$ 134,927	\$ 101,305	\$ 120,458	\$ 118,086	\$ 134,927
Additions:									
Revenue Fund Deposits	159,724	159,072	167,340	181,006	177,847	159,072	167,340	168,998	181,006
Bond funded interest						-	-	-	-
Sub-total	\$ 159,724	\$ 159,072	\$ 167,340	\$ 181,006	\$ 177,847				
Deductions:									
Principal and Int Payments	177,958	165,521	148,187	166,537	176,542	148,187	166,537	166,949	177,958
Sub-total	\$ 177,958	\$ 165,521	\$ 148,187	\$ 166,537	\$ 176,542				
Ending balance	\$ 107,754	\$ 101,305	\$ 120,458	\$ 134,927	\$ 136,232	\$ 101,305	\$ 120,458	\$ 120,135	\$ 136,232

Observations:

- September 30th ending balances are used to pay the October 1st interest and principal payments.
- This report does not include any Scherer debt service sinking funds.
- Timing differences occur due to the accrual of debt service during one fiscal year and the payment in the following fiscal year (primarily fixed rate principal and interest on October 1st of the following fiscal year).

## Electric System Debt Service Reserve Account

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution

Metric: Maximum interest payable on outstanding senior Electric System bonds as required by the Bond Resolutions

Definitions and Goals: This reserve will be funded, maintained and held for the benefit of bondholders as specified in the Supplemental Resolution authorizing the sale of the bonds to pay principal and/or interest on the bonds should revenues from operations not be sufficient for such purpose in accordance with the appropriate bond resolution. It is JEA's current practice to fund this reserve account with cash from the sale of bonds; however, revenues may be utilized to fund this reserve if necessary.

	Actual as of 12/31/2016		Full Year Budget Amounts			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
(In Thousands)								
Opening Balance	\$ 60,582	\$ 60,582	\$ 60,582	N/A	\$ 64,595	\$ 60,582	\$ 60,582	\$ 60,582
Additions:								
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Release to Revenue Fund				N/A	4,013			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 4,013	\$ -	\$ -	\$ -
Ending Balance	\$ 60,582	\$ 60,582	\$ 60,582	N/A	\$ 60,582	\$ 60,582	\$ 60,582	\$ 60,582

	Historical Actuals					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 72,226	\$ 72,226	\$ 64,841	\$ 64,841	\$ 64,595	\$ 64,595	\$ 64,841	\$ 67,746	\$ 72,226
Additions:									
Proceeds from Bonds				-	-	-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Defeasance		7,385		246	4,013	246	4,013	3,881	7,385
Sub-total	\$ -	\$ 7,385	\$ -	\$ 246	\$ 4,013	-	-	-	-
Ending balance	\$ 72,226	\$ 64,841	\$ 64,841	\$ 64,595	\$ 60,582	60,582	64,841	65,417	72,226

**Observations:**

- This report does not include any Scherer debt service reserves.
- In FY 2007, the debt service reserve requirement was satisfied 100% by the use of debt service reserve surety policies. In accordance with the bond resolution, beginning in FY 2008, cash/investments replaced the downgraded sureties due to their downgrade by the rating agencies. Sureties of \$67.6 million are still outstanding but are not eligible to be utilized as debt service reserve deposits per the Bond Resolutions.
- The debt service reserve account balance is currently in excess of the the debt service reserve requirement under the bond resolution by \$8.0 million. The excess will be used, if needed, to (1) fund an increase in the reserve requirement caused by a future issuance of new money bonds and/or variable to fixed refunding bonds, (2) help satisfy cash reserve targets instituted by the rating agencies, and/or (3) redeem bonds, in accordance with applicable tax laws.

## Electric Renewal and Replacement (R&R) / Operating Capital Outlay (OCO)

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution, Article 21 of the City of Jacksonville Charter and Pricing Policy

Metric: Renewal and Replacement required to deposit from the revenue fund annually an amount equal to the greater of 10% of the prior year defined annual net revenues or 5% of the prior year defined gross revenues per JEA's Electric System bond resolutions. Operating Capital Outlay - by 2013 the goal is to fund all non-capacity capital expenditures.

Definitions and Goals: Pursuant to the Electric System bond resolution and Article 21 of the City of Jacksonville Charter, JEA is required to deposit from the revenue fund annually an amount for Renewal and Replacement of system assets. According to the bond resolutions the amount is equal to the greater of 10% of the prior year defined annual net revenues or 5% of the prior year defined gross revenues. The funds shall be used for the purposes of paying the cost of extensions, enlargements or additions to, or the replacement of capital assets of the Electric System. In addition, as a portion of the base rate, JEA will recover from current revenue a formula driven amount for capital expenditures which is referred to as Operating Capital Outlay. This amount is calculated separately from the R&R deposit and may be allocated for use between capacity or non-capacity related expenditures based on the most beneficial economic and tax related financing structure incorporating the use of internal and bond funding.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 192,179	\$ 192,179	\$ 192,179	N/A	\$ 145,711	\$ 173,665	\$ 163,340	\$ 146,327
Additions:								
R&R/OCO Contribution	47,153	47,153	170,000		200,692	150,112	151,178	108,781
Loans betw Capital Fds					-			
Other	152	152	15,624		3,744	18,590		
Sub-total	\$ 47,305	\$ 47,305	\$ 185,624	\$ -	\$ 204,436	\$ 168,702	\$ 151,178	\$ 108,781
Deductions:								
Capital Expenditures	27,643	27,643	149,221		157,201	179,027	168,191	113,893
Transfers betw Capital Fds					-	765		
R&R/OCO Contribution								
Debt Defeasance			37,150		-			
Other	7,767	7,767	17,767					
Sub-total	\$ 35,410	\$ 35,410	\$ 204,138	\$ -	\$ 157,966	\$ 179,027	\$ 168,191	\$ 113,893
Ending Balance	\$ 204,074	\$ 204,074	\$ 173,665	N/A	\$ 192,181	\$ 163,340	\$ 146,327	\$ 141,215

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 73,727	\$ 105,235	\$ 140,486	\$ 146,910	\$ 145,711	\$ 73,727	\$ 140,486	\$ 122,414	\$ 146,910
Additions:									
R&R/OCO Contribution	142,822	124,630	85,639	110,351	200,692	85,639	124,630	132,827	200,692
Loans betw Capital Fds	-	-	-	-	-	-	-	-	-
Other	943	2,423	4,014	970	3,744	943	2,423	2,419	4,014
Sub-total	\$ 143,765	\$ 127,053	\$ 89,653	\$ 111,321	\$ 204,436				
Deductions:									
Capital Expenditures	112,257	91,802	82,889	112,483	157,201	82,889	112,257	111,326	157,201
Bond Buy Back	-	-	-	-	2	-	1	1	2
Transfer to Scherer									
Loans betw Capital Fds			340	37	765				
Other									
Sub-total	\$ 112,257	\$ 91,802	\$ 83,229	\$ 112,520	\$ 157,968				
Ending balance	\$ 105,235	\$ 140,486	\$ 146,910	\$ 145,711	\$ 192,179	\$ 105,235	\$ 145,711	\$ 146,104	\$ 192,179

Observations:

- Other includes the Oracle Financing and Sale of Property.
- Includes \$47 million for Maximum Annual Debt Service calculation.

## Electric Construction / Bond Fund

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution

Metric: Target = Capital expenditures per year minus internal funding available

Definitions and Goals: JEA maintains a senior and subordinated construction fund of which bonds proceeds are deposited and used for the payment of the costs of additions, extensions and improvements to the Electric System. The senior construction fund is limited to the costs of additions, extension and improvements relating to non-generation capital expenditures. The subordinated construction fund is used for capital projects relating to all categories of capital expenditures but primarily targeted to fund generation capital expenditures.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ -	\$ -	\$ -	N/A	\$ 4	\$ -	\$ -	\$ -
Additions:								
Bond Proceeds					-			
Line of Credit					-			
Transfers b/w Capital Fds	-				-			
Other					2			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 2	\$ -	\$ -	\$ -
Deductions:								
Capital Expenditures					6	-	-	-
Bond Funded Interest					-			
Transfers b/w Capital Fds					-			
Other					-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 6	\$ -	\$ -	\$ -
Ending Balance	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	\$ -

(In Thousands)	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 63,915	\$ 40,034	\$ 5,184	\$ 42	\$ 4	\$ -	\$ 2,613	\$ 18,197	\$ 63,915
Additions:									
Bond Proceeds		1,550				1,550	1,550	1,550	1,550
Line of Credit						-	-	-	-
Transfers b/w Capital Fds			3,091			3,091	3,091	3,091	3,091
Other		34	340	37	2	2	36	103	340
Sub-total	\$ -	\$ 1,584	\$ 3,431	\$ 37	\$ 2				
Deductions:									
Capital Expenditures	23,385	35,253	4,821	75	6	6	4,821	12,708	35,253
Bond Funded Interest						-	-	-	-
Line of Credit									
Transfers b/w Capital Fds		35	3,091			35	1,563	1,563	3,091
Other	496	1,146	661			496	661	768	1,146
Sub-total	\$ 23,881	\$ 36,434	\$ 8,573	\$ 75	\$ 6				
Ending balance	\$ 40,034	\$ 5,184	\$ 42	\$ 4	\$ -	\$ -	\$ 42	\$ 9,053	\$ 40,034

**Observations:**

- JEA's philosophy has been to borrow bond funds on a "just-in-time" basis. Staff has used line of credit borrowings and loans between capital funds to decrease borrowing costs.
- No new debt issues for the FY 2017 - 2019 projection period.

## Water and Sewer Debt Management Reserve

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Debt Management Policy

Metric: One-half percent of the par amount of outstanding variable debt (adjusted for variable to fixed rate long term swaps). Capped at 3% of the par amount of outstanding variable debt.

Definitions and Goals: For the period FY 04 through FY 09, an annual budgeted reserve contribution for variable rate debt was made. The calculation was based upon one half percent of the par amount of outstanding variable rate debt (adjusted for variable rate to fixed rate long term swaps). The budget reserve was capped at three percent of the par amount of the outstanding variable rate debt. The reserve can be used for any lawful purpose including debt service, debt repayment, and capital outlay and must be approved in writing by the CEO.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	\$ -
Additions:								
Contributions					-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deductions:								
Withdrawals					-			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ -	\$ -	\$ -	N/A	\$ -	\$ -	\$ -	\$ -

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 6,458	\$ 6,458	\$ 304	\$ 304	\$ -	\$ -	\$ 304	\$ 2,705	\$ 6,458
Additions:									
Contributions						-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Withdrawals		6,154		304		304	3,229	3,229	6,154
Sub-total	\$ -	\$ 6,154	\$ -	\$ 304	\$ -	-	-	-	-
Ending balance	\$ 6,458	\$ 304	\$ 304	\$ -	\$ -	\$ -	\$ 304	\$ 1,413	\$ 6,458

**Observations:**

- This reserve fund discontinued contributions in FY 2009 due to adoption of new policy. Reserve activity reflected in RSF - Debt Management for that year.
- \$6 million was used in Sept 2013 for a defeasance.



## Water and Sewer Rate Stabilization Debt Management

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Metric: Difference in actual interest rates for interest expense on the unhedged variable rate debt as compared to the budgeted assumptions for interest expense on unhedged variable rate debt.

Definitions and Goals: The Water & Sewer System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which deposits or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Funds provide a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as fuel, debt management and regulatory requirements or initiatives. Deposits are made to this Rate Stabilization Fund for the purpose of managing JEA's debt portfolio. Deposits to this reserve reflect the difference in the actual interest rates for interest expense on the unhedged variable rate debt as compared to the budgeted assumptions for interest expense on the unhedged variable rate debt. Additionally, deposits can be made from excess debt service budget over the actual debt service expense for any fiscal year. However, the total amounts deposited (in addition to actual debt service costs for the fiscal year) cannot exceed the total amount of the budgeted debt service for any fiscal year. At a minimum, 50% of the calculated reserve contribution, if any, will be recorded and deposited each fiscal year. Debt and Investment Committee will review and record at their option an additional contribution amount, up to the full value of the calculated reserve contribution (the remaining 50%). The reserve contributions will be calculated on a system by system basis; however, based on the calculation, any mandatory deposit will exclude the District Energy System. The reserve contributions shall cease in the event the reserve balance exceeds the cap of five percent of the par amount of the total outstanding variable rate debt of all systems. Withdrawals from the Rate Stabilization Fund for Debt Management Strategy can be made for expenses related to market disruption in the capital markets, disruption in availability of credit or unanticipated credit expenses, or to fund variable interest costs in excess of budget.

	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
<i>(In Thousands)</i>								
Opening Balance	\$ 20,290	\$ 20,290	\$ 20,290	N/A	\$ 20,290	\$ 14,209	\$ 14,209	\$ 14,209
Additions:								
Contributions	-	-	-	N/A	-			
Financial Statement Rounding								
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deductions:								
Withdrawals			6,081					
Sub-total	\$ -	\$ -	\$ 6,081	\$ -	\$ -	\$ -	\$ -	\$ -
Ending Balance	\$ 20,290	\$ 20,290	\$ 14,209	N/A	\$ 20,290	\$ 14,209	\$ 14,209	\$ 14,209

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 17,560	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 17,560	\$ 20,290	\$ 19,744	\$ 20,290
Additions:									
Contributions	2,730					-	-	-	-
Sub-total	\$ 2,730	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Withdrawals						-	-	-	-
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	-	-
Ending balance	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290	\$ 20,290

Observations:

- Contributions began in June 2009.

## Water & Sewer System Rate Stabilization - Environmental

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution and Pricing Policy

Definitions and Goals: The Water & Sewer System Bond Resolution authorizes the establishment of a Rate Stabilization Fund in which contributions or withdrawals shall be made as set forth in the current annual budget or an amount otherwise determined by an authorized officer of JEA. The Rate Stabilization Fund provides a means to minimize the year-to-year impact to customer charges and support financial metrics by providing consistent revenue collection for expenditures impacted by external factors such as debt management and regulatory requirements or initiatives.

<i>(In Thousands)</i>	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 1,699	\$ 1,699	\$ 1,699	N/A	\$ -	\$ 1,497	\$ 2,148	\$ 1,331
Additions:								
Contributions	5,907	5,907	23,321		-	23,979	24,064	24,155
Regulatory Receivable								
Sub-total	\$ 5,907	\$ 5,907	\$ 23,321	\$ -	\$ -	\$ 23,979	\$ 24,064	\$ 24,155
Deductions:								
Withdrawals	4,634	4,634	23,523		-	23,328	24,881	24,651
Regulatory Receivable								
Sub-total	\$ 4,634	\$ 4,634	\$ 23,523	\$ -	\$ -	\$ 23,328	\$ 24,881	\$ 24,651
Ending Balance	\$ 2,972	\$ 2,972	\$ 1,497	N/A	\$ -	\$ 2,148	\$ 1,331	\$ 835

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additions:									
Contributions					23,635	23,635	23,635	23,635	23,635
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 23,635	-	-	-	-
Deductions:									
Withdrawals					21,936	21,936	21,936	21,936	21,936
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 21,936	-	-	-	-
Ending balance	\$ -	\$ -	\$ -	\$ -	\$ 1,699	\$ -	\$ -	\$ 340	\$ 1,699

**Observations:**

- Rate Stabilization Fund for Environmental began in June 2010.

## Water and Sewer System Customer Deposits

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Management Directive 302 Credit and Collections and Internal Procedure CR40400 MBC302

Metric: Internal procedure CR40400 MBC302 Credit and Collections

Definitions and Goals: Pursuant to internal procedure CR40400 MBC302 Credit and Collections, JEA accesses customers a deposit that may be used to offset any future unpaid amounts during the course of providing utility service to a customer.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 13,910	\$ 13,910	\$ 13,910	N/A	\$ 13,255	\$ 13,911	\$ 13,911	\$ 13,911
Additions:								
Allocated from Electric Loan Repayment	1	1	1	N/A	655			
Sub-total	\$ 1	\$ 1	\$ 1	-	\$ 655	-	-	-
Deductions:								
Allocated from Electric Loan to W&S Operations			-	N/A	-			
Sub-total	\$ -	\$ -	\$ -	-	-	-	-	-
Ending Balance	\$ 13,911	\$ 13,911	\$ 13,911	N/A	\$ 13,910	\$ 13,911	\$ 13,911	\$ 13,911

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 9,727	\$ 12,627	\$ 13,860	\$ 12,787	\$ 13,255	\$ 9,727	\$ 12,787	\$ 12,451	\$ 13,860
Additions:									
Allocated from Electric Loan Repayment	2,900	1,233		468	655	468	562	562	655
Sub-total	\$ 3,900	\$ 1,233	-	\$ 468	\$ 655	-	-	-	-
Deductions:									
Allocated from Electric Loan to W&S Operations	1,000		1,073			1,073	1,073	1,073	1,073
Sub-total	\$ 1,000	-	\$ 1,073	-	-	-	-	-	-
Ending balance	\$ 12,627	\$ 13,860	\$ 12,787	\$ 13,255	\$ 13,910	\$ 12,627	\$ 13,255	\$ 13,288	\$ 13,910

Observations:

- JEA is in the process of implementing a prepaid meter program which could reduce customer deposits at some future date.

## Water and Sewer Debt Service Sinking Fund

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution

Metric: Accrued interest and principal currently payable on fixed and variable rate bonds pursuant to the Bond Resolutions

Definitions and Goals: JEA is required monthly to fund from revenues an amount equal to the aggregate of the Debt Service Requirement for senior and subordinated bonds for such month into this account. On or before such interest payment date, JEA shall pay out of this account to the paying agents the amount required for the interest and principal due on such date.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 65,410	\$ 65,410	\$ 65,410	N/A	\$ 67,720	\$ 82,870	\$ 82,725	\$ 84,744
Additions:								
Revenue fund deposits	28,596	28,596	119,016		97,077	119,433	122,454	122,763
Sub-total	\$ 28,596	\$ 28,596	\$ 119,016	\$ -	\$ 97,077	\$ 119,433	\$ 122,454	\$ 122,763
Deductions:								
Principal and interest payments	65,692	65,692	101,556	N/A	99,387	119,578	120,435	121,219
Sub-total	\$ 65,692	\$ 65,692	\$ 101,556	\$ -	\$ 99,387	\$ 119,578	\$ 120,435	\$ 121,219
Ending Balance	\$ 28,314	\$ 28,314	\$ 82,870	N/A	\$ 65,410	\$ 82,725	\$ 84,744	\$ 86,288

(In Thousands)	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 80,936	\$ 81,675	\$ 80,317	\$ 75,019	\$ 67,720	\$ -	\$ 77,668	\$ 64,278	\$ 81,675
Additions:									
Revenue fund deposits	125,160	119,535	117,444	102,789	97,077	97,077	117,444	112,401	125,160
Bond funded interest						-	-	-	-
Sub-total	\$ 125,160	\$ 119,535	\$ 117,444	\$ 102,789	\$ 97,077	-	-	-	-
Deductions:									
Principal and interest payments	124,421	120,893	122,742	110,088	99,387	99,387	120,893	115,506	124,421
Sub-total	\$ 124,421	\$ 120,893	\$ 122,742	\$ 110,088	\$ 99,387	-	-	-	-
Ending balance	\$ 81,675	\$ 80,317	\$ 75,019	\$ 67,720	\$ 65,410	\$ 65,410	\$ 75,019	\$ 74,028	\$ 81,675

**Observations:**

- September 30th ending balances are used to pay Oct 1st interest and principal payments.
- Timing differences occur due to the accrual of debt service during one fiscal year and the payment in the following fiscal year (primarily fixed rate principal and interest on Oct 1st of the following fiscal year).

## Water and Sewer Debt Service Reserve Account

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Bond Resolution

Metric: 125% of average annual debt service on outstanding senior fixed and variable rate bonds plus subordinated fixed rate bonds as required by the Bond Resolutions

Definitions and Goals: This reserve will be funded, maintained and held for the benefit of bondholders as specified in the Supplemental Resolution authorizing the sale of the bonds to pay principal and/or interest on the bonds should revenues from operations not be sufficient for such purpose in accordance with the appropriate bond resolution. It is JEA's current practice to fund this reserve account with cash from the sale of bonds; however, revenues may be utilized to fund this reserve if necessary.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 108,086	\$ 108,086	\$ 108,086	N/A	\$ 108,849	\$ 107,488	\$ 107,488	\$ 107,488
Additions:								
Construction reserve fund/bond issues			-	N/A	-			
Revenue fund			-	N/A	-			
Rounding			-					
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deductions:								
Revenue fund	598	598	598		763			
Sub-total	\$ 598	\$ 598	\$ 598	\$ -	\$ 763	\$ -	\$ -	\$ -
Ending Balance	\$ 107,488	\$ 107,488	\$ 107,488	N/A	\$ 108,086	\$ 107,488	\$ 107,488	\$ 107,488

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 102,214	\$ 119,131	\$ 119,915	\$ 116,829	\$ 108,849	\$ 102,214	\$ 116,829	\$ 113,388	\$ 119,915
Additions:									
Construction reserve fund/bond issues	10,917	784	-			784	5,851	5,851	10,917
Revenue fund	6,000	3,821				3,821	4,911	4,911	6,000
Sub-total	\$ 16,917	\$ 4,605	\$ -	\$ -	\$ -	-	-	-	-
Deductions:									
Revenue fund		3,821	3,086	7,980	763	763	3,454	3,913	7,980
Sub-total	\$ -	\$ 3,821	\$ 3,086	\$ 7,980	\$ 763	-	-	-	-
Ending balance	\$ 119,131	\$ 119,915	\$ 116,829	\$ 108,849	\$ 108,086	\$ 108,086	\$ 116,829	\$ 114,562	\$ 119,915

**Observations:**

- In 2008, debt service reserve sureties downgraded and JEA began replacing those downgraded sureties with cash/investments as required by the bond resolutions. Sureties of \$149.8 million are still outstanding but are not eligible to be utilized as debt service reserve deposits per the Bond Resolutions.

## Water and Sewer Renewal and Replacement (R&R) / Operating Capital Outlay (OCO)

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution, Article 21 of the City of Jacksonville Charter and Pricing Policy

Metric: Renewal and Replacement required to deposit from the revenue fund annually an amount equal to the greater of 10% of the prior year defined annual net revenues or 5% of the prior year defined gross revenues per JEA's Water and Sewer System bond resolutions. Operating Capital Outlay - by 2013 the goal is to fund all non-capacity capital expenditures.

Definitions and Goals: Pursuant to the Water and Sewer System bond resolutions and Article 21 of the City of Jacksonville Charter, JEA is required to deposit from the revenue fund annually an amount for Renewal and Replacement of system assets. According to the bond resolutions the amount is equal to the greater of 10% of the prior year defined annual net revenues or 5% of the prior year defined gross revenues. The funds shall be used for the purposes of paying the cost of extensions, enlargements or additions to, or the replacement of capital assets of the Electric System. In addition, as a portion of the base rate, JEA will recover from current revenue a formula driven amount for capital expenditures which is referred to as Operating Capital Outlay. This amount is calculated separately from the R&R deposit. In accordance with the Pricing Policy, by 2013, the objective is to fund an amount equal to all non-capacity capital expenditures with current year internally generated funds.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 76,020	\$ 76,020	\$ 76,020	N/A	\$ 37,337	\$ 48,660	\$ 43,793	\$ 17,530
Additions:								
R&R/OCO Contribution	32,893	32,893	106,924	-	124,574	130,975	109,385	110,363
Transfer from Capital Fds				-	-			
Other	1,853	1,853	10,467	-	30,889	8,600	8,600	8,600
Sub-total	\$ 34,746	\$ 34,746	\$ 117,391	\$ -	\$ 155,463	\$ 139,575	\$ 117,985	\$ 118,963
Deductions:								
Capital Expenditures	30,183	30,183	144,677	-	116,674	144,442	144,248	125,774
Transfer to Capacity Fund	74	74	74	-	-			
Transfer to Construction Fund				-	-			
R&R/OCO Contribution				-	106	-		
Sub-total	\$ 30,257	\$ 30,257	\$ 144,751	\$ -	\$ 116,780	\$ 144,442	\$ 144,248	\$ 125,774
Ending Balance	\$ 80,509	\$ 80,509	\$ 48,660	N/A	\$ 76,020	\$ 43,793	\$ 17,530	\$ 10,719

	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 28,840	\$ 64,260	\$ 78,689	\$ 59,295	\$ 37,337	\$ 28,840	\$ 59,295	\$ 53,684	\$ 78,689
Additions:									
R&R/OCO Contribution	76,157	91,245	48,373	62,793	124,574	48,373	76,157	80,628	124,574
Loans betw Capital Fds	-	-	-	22	-	-	-	7	22
Other (incl septic tank)	5,771	1,539	1,614	653	30,889	653	1,614	8,093	30,889
Sub-total	\$ 81,928	\$ 92,784	\$ 49,987	\$ 63,468	\$ 155,463				
Deductions:									
Capital Expenditures	46,508	68,355	67,488	85,426	116,674	46,508	68,355	76,890	116,674
Loan Repayment	-	-	-	-	-	-	-	-	-
Transfer to Constr. Fund	-	10,000	1,893	-	106	-	1,000	3,000	10,000
Other (incl septic tank)	-	-	-	-	-	-	-	-	-
Sub-total	\$ 46,508	\$ 78,355	\$ 69,381	\$ 85,426	\$ 116,780				
Ending balance	\$ 64,260	\$ 78,689	\$ 59,295	\$ 37,337	\$ 76,020	\$ 37,337	\$ 64,260	\$ 63,120	\$ 78,689

**Observations:**

- Other includes the Septic Tank Phase-out project, Sale of Property, and the transfer of RSF - Environmental in FY 2016 - 2019
- Includes \$20 million for Maximum Annual Debt Service calculation.
- \$57 million is projected to be withdrawn from this capital balance in FY 2016-2017 to support the capital program with lower Net Revenues as planned with the June 2012 approved reduction in the October 1, 2012 rate increase.

## Water and Sewer Capacity Fees / State Revolving Fund Loans

**For the Fiscal Quarter Ending December 31, 2016**

Reserve/Fund Authorization: Florida Statute and Rate Tariff

Metric: Tariff rate

Definitions and Goals: Capacity fees are charged to customers as a one- time fee for a new connection to the Water System and a one- time fee for a new connection to the Sewer System. Capacity charges may be used and applied for the purpose of paying costs of expansion of the Water and Sewer System or paying or providing for the payment of debt that was issued for the same purpose. In addition, the Water and Sewer System has received funds from the State Revolving Fund (SRF) program for the construction of water and wastewater treatment facilities. SRF loans are subordinated to all Water and Sewer System Revenue Bonds and Water and Sewer System Subordinated Revenue Bonds.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 103,411	\$ 103,411	\$ 103,411	N/A	\$ 90,912	\$ 75,921	\$ 53,597	\$ 46,641
Additions:								
Capacity Fees	4,579	4,579	18,829	-	21,995	19,190	19,382	
State Revolving Fd Loan				-	-			
Transfer from R&R/OCO Fund	74	74	589	-	145	650	650	
Other				-	-			
Sub-total	\$ 4,653	\$ 4,653	\$ 19,418	\$ -	\$ 22,140	\$ 19,840	\$ 20,032	\$ -
Deductions:								
Capital Expenditures	4,820	4,820	46,908	-	9,648	42,164	26,988	
Other				-	-			
Sub-total	\$ 4,820	\$ 4,820	\$ 46,908	\$ -	\$ 9,648	\$ 42,164	\$ 26,988	\$ -
Ending Balance	\$ 103,244	\$ 103,244	\$ 75,921	N/A	\$ 103,404	\$ 53,597	\$ 46,641	\$ 46,641

(In Thousands)	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 41,025	\$ 45,454	\$ 60,360	\$ 76,887	\$ 90,912	\$ 41,025	\$ 60,360	\$ 62,928	\$ 90,912
Additions:									
Capacity Fees	10,820	17,394	18,298	19,579	21,995	10,820	18,298	17,617	21,995
State Revolving Fd Loan	3,798	-	-	-	-	-	-	1,266	3,798
Loan Repayments	-	-	-	246	145	-	-	78	246
Other	-	12	-	5	7	-	5	5	12
Sub-total	\$ 14,618	\$ 17,406	\$ 18,298	\$ 19,830	\$ 22,147				
Deductions:									
Capital Expenditures	7,096	2,270	1,758	5,805	9,648	1,758	5,805	5,315	9,648
Loans betw Capital Fds	-	-	-	-	-	-	-	-	-
Other	3,093	230	13	-	-	13	230	1,112	3,093
Sub-total	\$ 10,189	\$ 2,500	\$ 1,771	\$ 5,805	\$ 9,648				
Ending balance	\$ 45,454	\$ 60,360	\$ 76,887	\$ 90,912	\$ 103,411	\$ 45,454	\$ 76,887	\$ 75,405	\$ 103,411

Observations:

## Water and Sewer Environmental

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Pricing Policy

Metric: Unit tariff rates times consumption

Definitions and Goals: The Environmental Charge will be applied to all water, sewer, irrigation and non bulk user reclaimed consumption. The environmental charge revenue will be collected from customers to partially offset current and future environmental and regulatory needs as specified in the Pricing Policy for specific environmental and regulatory programs.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 2,659	\$ 2,659	\$ 2,659	N/A	\$ -	\$ 294	\$ -	\$ -
Additions:								
Environmental Contributions	2,374	2,374	13,692	-	15,539	11,116	12,148	13,611
Loans betw Capital Fds				-	-			
Other				-	-			
Sub-total	\$ 2,374	\$ 2,374	\$ 13,692	\$ -	\$ 15,539	\$ 11,116	\$ 12,148	\$ 13,611
Deductions:								
Capital Expenditures	3,577	3,577	16,057	-	12,880	11,410	12,148	13,611
Septic Tank Phase Out				-	-			
Other	-	-	-	-	-			
Sub-total	\$ 3,577	\$ 3,577	\$ 16,057	\$ -	\$ 12,880	\$ 11,410	\$ 12,148	\$ 13,611
Ending Balance	\$ 1,456	\$ 1,456	\$ 294	N/A	\$ 2,659	\$ -	\$ -	\$ -

(In Thousands)	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 9,795	\$ (8,158)	\$ (9,857)	\$ 5,299	\$ -	\$ (9,857)	\$ -	\$ (584)	\$ 9,795
Additions:									
Environmental Contributions	21,747	21,193	21,018	22,056	15,539	15,539	21,193	20,311	22,056
Loans betw Capital Fds	-	-	-			-	-	-	-
Other						-	-	-	-
Sub-total	\$ 21,747	\$ 21,193	\$ 21,018	\$ 22,056	\$ 15,539				
Deductions:									
Capital Expenditures	39,700	22,892	5,862	7,318	12,880	5,862	12,880	17,730	39,700
Septic Tank Phase Out				203		203	203	203	203
Other				19,834		19,834	19,834	19,834	19,834
Sub-total	\$ 39,700	\$ 22,892	\$ 5,862	\$ 27,355	\$ 12,880				
Ending balance	\$ (8,158)	\$ (9,857)	\$ 5,299	\$ -	\$ 2,659	\$ (9,857)	\$ -	\$ (2,011)	\$ 5,299

Observations:



## Water and Sewer Construction / Bond Fund

For the Fiscal Quarter Ending December 31, 2016

Reserve/Fund Authorization: Bond Resolution

Metric: Capital expenditures per year minus internal funding available

Definitions and Goals: JEA maintains a senior and subordinated construction fund of which bonds proceeds are deposited and used for the payment of the costs of additions, extensions and improvements to the Water and Sewer System.

(In Thousands)	Actual as of 12/31/2016		Full Year			Projection		
	Current Quarter	Year -to-Date	2017 Forecast	2017 Budget	Prior Year Actual	2018	2019	2020
Opening Balance	\$ 152	\$ 152	\$ 152	N/A	\$ 664	\$ -	\$ -	\$ -
Additions:								
Bond Proceeds			-	-	-			
Line of Credit			-	-	-			
Transfer from R&R/OCO Fund					-			
Other					17			
Sub-total	\$ -	\$ -	\$ -	\$ -	\$ 17	\$ -	\$ -	\$ -
Deductions:								
Capital Expenditures					-			
Bond Proceeds					-			
Other			152		529			
Sub-total	\$ -	\$ -	\$ 152	\$ -	\$ 529	\$ -	\$ -	\$ -
Ending Balance	\$ 152	\$ 152	\$ -	N/A	\$ 152	\$ -	\$ -	\$ -

(In Thousands)	Historical					Statistical			
	2012	2013	2014	2015	2016	Low	Median	Mean	High
Opening Balance	\$ 29,622	\$ 7,419	\$ 2,305	\$ 326	\$ 664	\$ 326	\$ 2,305	\$ 8,067	\$ 29,622
Additions:									
Bond Proceeds	-	486	-	-	-	-	-	162	486
Line of Credit	-	-	-	-	-	-	-	-	-
Loans/trnsf btw CapFds	-	10,000	1,893	-	-	-	1,893	3,964	10,000
Other	-	3	476	344	17	-	17	168	476
Sub-total	\$ -	\$ 10,489	\$ 2,369	\$ 344	\$ 17				
Deductions:									
Capital Expenditures	20,243	14,855	3,784	6		6	9,320	9,722	20,243
Bond Proceeds	-	411	48	-	-	-	48	153	411
Line of Credit	-	-	-	-	-	-	-	-	-
Loans/trnsf btw CapFds	-	337	516	-	-	-	337	284	516
Other	1,960	-	-	-	529	-	265	622	1,960
Sub-total	\$ 22,203	\$ 15,603	\$ 4,348	\$ 6	\$ 529				
Ending balance	\$ 7,419	\$ 2,305	\$ 326	\$ 664	\$ 152	\$ 152	\$ 664	\$ 2,173	\$ 7,419

**Observations:**

- JEA's philosophy has been to borrow bond funds on a "just-in-time" basis. Staff has used line of credit borrowings and loans between capital funds to decrease borrowing costs.
- No new debt issues for the FY 2017-2019 projection.