Financial Statements, Supplementary Information, and Bond Compliance Information

JEA

Years Ended September 30, 2019 and 2018
With Report of Independent Auditors

Ernst & Young LLP

Building a better working world

JEA

Financial Statements, Supplementary Information, and Bond Compliance Information

Years Ended September 30, 2019 and 2018

Contents

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Report of Independent Auditors

The Board of Directors
JEA
Jacksonville, Florida

Report on the Financial Statements

We have audited the accompanying financial statements of JEA, a component unit of the City of Jacksonville as of and for the years ended September 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise JEA's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in conformity with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of JEA as of September 30, 2019 and 2018, and the changes in financial position and cash flows thereof for the years then ended in conformity with U.S. generally accepted accounting principles.

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Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that Management's Disclosure and Analysis, the Schedule of JEA's Proportionate Share of the Net Pension Liability and Schedule of JEA Contributions, SJRPP Pension Plan – Schedule of Changes in Net Pension Liability and Related Ratios, SJRPP Pension Plan – Investment Returns and Schedule of Contributions, OPEB Plan – Schedule of Changes in Net OPEB Liability and Related Ratios and OPEB Plan – Investment Returns and Schedule of Contributions, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The combining statements of net position, revenues, expenses and changes in net position and cash flows and Schedules of Debt Service Coverage as listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States. In our opinion, the combining statements of net position, revenues, expenses and changes in net position and cash flows and schedules of debt service coverage, as listed in the table of contents are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we also have issued our report dated December 9, 2019, on our consideration of JEA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of JEA's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering JEA's internal control over financial reporting and compliance.

Ernst + Young LLP

December 9, 2019

Management's Discussion and Analysis

Introduction

JEA is a municipal utility operating in Jacksonville, Florida (Duval County) and parts of three adjacent counties. The operation is composed of three enterprise funds – Electric Enterprise, Water and Sewer, and District Energy System (DES). Electric Enterprise is comprised of the JEA Electric System, Bulk Power Supply System (Scherer), and St. Johns River Power Park System (SJRPP). Electric Enterprise, Water and Sewer, and DES funds are presented on a combined basis in the accompanying statements of net position, statements of revenues, expenses and changes in net position, and statements of cash flows.

Overview of the Combined Financial Statements

This discussion and analysis serves as an introduction to JEA's basic financial statements. The information presented here should be read in conjunction with the financial statements and accompanying notes.

The basic financial statements are presented on a comparative basis for the fiscal years ended September 30, 2019 and 2018. The statements of net position present JEA's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the residual reported as net position. Revenue and expense information is presented in the accompanying statements of revenues, expenses, and changes in net position. The accompanying statements of cash flows present JEA's sources and uses of cash and cash equivalents and are presented using the direct method. This method provides broad categories of cash receipts and cash disbursements pertaining to cash provided by or used in operations, investing, and financing activities.

The notes to the financial statements are an integral part of JEA's basic financial statements and contain information on accounting principles and additional information on certain components of these statements.

The following tables summarize the financial condition and operations of JEA for the 2019 and 2018 fiscal years:

Condensed Statements of Net Position

	2019	2018	2017*
	(In millions)		
Assets and deferred outflows of resources			
Current assets	**$ 753**	$ 874	$ 902
Other noncurrent assets	**1,517**	1,677	1,624
Net capital assets	**5,466**	5,380	5,814
Deferred outflows of resources	**461**	435	438
Total assets and deferred outflows of resources	**$ 8,197**	$ 8,366	$ 8,778
Liabilities and deferred inflows of resources			
Current liabilities	**$ 200**	$ 207	$ 189
Current liabilities payable from restricted assets	**371**	367	449
Net pension liability	**566**	544	554
Other noncurrent liabilities	**110**	91	90
Long-term debt	**3,696**	4,053	4,410
Deferred inflows of resources	**301**	348	457
Net position			
Net investment in capital assets	**2,249**	1,857	1,622
Restricted	**400**	542	614
Unrestricted	**304**	357	393
Total liabilities, deferred inflows of resources, and net position	**$ 8,197**	$ 8,366	$ 8,778

Condensed Statements of Revenues, Expenses, and Changes in Net Position

	2019	2018	2017*
	(In millions)		
Operating revenues	**$ 1,752**	$ 1,790	$ 1,875
Operating expenses	**(1,340)**	(1,399)	(1,380)
Operating income	**412**	391	495
Nonoperating expenses, net	**(111)**	(131)	(149)
Contributions	**(103)**	(89)	(91)
Special Item	**–**	(45)	–
Change in net position	**198**	126	255
Net position – beginning of the year	**2,755**	2,629	2,377
Effect of adoption of GASB Statement No. 75	**–**	–	(3)
Net position – beginning of the year, restated	**2,755**	2,629	2,374
Net position – end of the year	**$ 2,953**	$ 2,755	$ 2,629

*Restated for implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*

Financial Analysis of JEA for fiscal years 2019 and 2018

2019 Compared to 2018

Electric Enterprise

Operating Revenues

Total operating revenues decreased approximately $66 million (4.8%) compared to fiscal year 2018. Electric revenues decreased $7 million and other operating revenues decreased by $59 million.

The $7 million decrease in electric revenues was driven by a $29 million decrease in sales to FPL as a result of the shutdown of SJRPP in January 2018. That decrease was mostly offset by a $16 million net increase in transfers from stabilization funds (see note 2, Regulatory Deferrals, for additional information) and a $6 million increase in territorial sales. Territorial MWh sales were up 40,695 megawatt hours (MWh) (0.3%), driven by a 0.9% increase in degree days that was partially offset by a 1.6% decrease in average MWhs per customer. SJRPP Sales to FPL decreased by 332,467 MWh and off-system sales increased by 25,494 MWh, which brought the change to a net decrease in MWh sales of 266,278 MWh (2.1%).

The decrease in other operating revenues was due to the cycling of the prior year FPL shutdown payment. See the St. Johns River Power Park section of note 3, Asset Retirement Obligations, for further details.

Operating Expenses

Total operating expenses decreased approximately $83 million (7.5%), compared to fiscal year 2018.

Fuel and purchased power expense decreased approximately $65 million (12.2%), compared to fiscal year 2018. Costs decreased by $76 million while MWh generated and purchased increased by $11 million. As commodity prices have fluctuated over these periods, the mix between generation and purchased power has shifted as JEA has taken advantage of the most economical sources of power. In addition, the shutdown of the SJRPP power plant has decreased power production sourced by coal significantly. Total MWh power volumes increased 0.7% compared to fiscal year 2018 to 12,964,577 MWh, with an increase of 39.8% for MWh purchased and a decrease of 8.2% for MWh generated. Detailed below is JEA's power supply mix.

	FY 2019	FY 2018
Natural gas	**49%**	48%
Purchases	**26%**	18%
Coal	**16%**	22%
Petroleum coke	**9%**	12%
Total	**100%**	100%

Operating expenses, other than fuel and purchased power, decreased approximately $18 million, compared to fiscal year 2018.

Maintenance and other operating expenses decreased $46 million. The drivers for the decrease were a $49 million reduction in SJRPP operating expenses due to the plant shutdown, a $14 million decrease in Scherer capital improvements and operating costs as outage years are in even-numbered years, and a $4 million decrease in industrial services. These decreases were offset by an $11 million increase in professional services, an $8 million increase in compensation and benefits, a $1 million increase in insurance, and a $1 million increase in maintenance.

Recognition of deferred costs and revenues, net increased $33 million due to a $22 million increase in environmental projects paid from the rate stabilization fund and $11 million in higher deferred cost amortization, primarily related to the reduced depreciation for SJRPP capital assets subsequent to the impairment. See the St. Johns River Power Park section of note 3, Asset Retirement Obligations, for additional details. Depreciation expense decreased $6 million due to a decrease in the depreciable base, driven by the impairment of the SJRPP capital assets due to the shutdown of the SJRPP plant. State utility and franchise taxes increased $1 million due to higher electric revenue taxable sales.

Water and Sewer Enterprise

Operating Revenues

Total operating revenues increased approximately $28 million (6.5%) compared to fiscal year 2018. Water revenues increased $8 million (4.5%) due to a 4.2% increase in consumption and a 2.1% increase in customer accounts. Water consumption increased 1,509,513 kilogallons (kgals) to 37,696,072 kgals. Sewer revenues increased approximately $9 million (3.9%) primarily related to a 5.3% increase in sales and a 2.6% increase in sewer accounts. Sewer sales increased 1,386,174 kgals to 27,726,796 kgals. Reuse revenues increased approximately $4 million (31.1%), primarily related to a 24.1% increase in reuse accounts and a 24.5% increase in sales. Reuse sales increased 764,471 kgals to 3,884,210 kgals. Water and sewer revenues also increased due to a $5 million net increase in transfers from stabilization funds. See note 2, Regulatory Deferrals, for additional information. Other operating revenues increased by $2 million as a result of increases in miscellaneous service revenues.

Operating Expenses

Operating expenses increased $24 million (7.6%), compared to fiscal year 2018. Maintenance and other expenses increased $11 million due to a $7 million increase in compensation and benefits and a $4 million increase in professional and industrial services. Depreciation expense increased $8 million due to an increase in the depreciable base. Recognition of deferred costs and revenues, net increased $5 million due to an increase in environmental projects paid from the rate stabilization fund.

District Energy System

Operating Revenues

Operating revenues remained flat when compared to fiscal year 2018 at $9 million.

Operating Expenses

Operating expenses remained flat when compared to fiscal year 2018 at $7 million.

2018 Compared to 2017

Electric Enterprise

Operating Revenues

Total operating revenues decreased approximately $62 million (4.4%) compared to fiscal year 2017. Electric revenues decreased $114 million and other operating revenues increased by $52 million. The $114 million decrease in electric revenues was due to a $97 million decrease in sales to FPL as a result of the shutdown of SJRPP in January 2018, and a $40 million decrease in transfers from stabilization funds. See note 2, Regulatory Deferrals, for additional information. The decrease was partially offset by $23 million increase in territorial sales. Territorial MWh sales were up 314,205 megawatt hours (MWh) (2.6%), resulting in a 1.0% increase in average MWhs per customer, driven by a 13.9% increase in degree days. SJRPP Sales to FPL decreased by 1,360,616 MWh and off-system sales decreased by 115,206 MWh, which brought the change to a net decrease in MWh sales of 1,161,617 MWh (8.4%). The increase in other operating revenues was driven by the FPL shutdown payment. See note 3, St. Johns River Power Park Decommissioning, for further details.

Operating Expenses

Total operating expenses increased approximately $14 million (1.3%), compared to fiscal year 2017.

Fuel and purchased power expense decreased approximately $6 million (1.1%), compared to fiscal year 2017. Costs decreased by $19 million while MWh generated and purchased increased by $13 million. As commodity prices have fluctuated over these periods, the mix between generation and purchased power has shifted as JEA has taken advantage of the most economical sources of power. In addition, the shutdown of the SJRPP power plant has decreased power production sourced by coal significantly. Total MWh power volumes increased 1.6% compared to fiscal year 2017 to 12,874,102 MWh, with an increase of 41.6% for MWh purchased and a decrease of 4.5% for MWh generated. Detailed below is JEA's power supply mix.

	FY 2018	**FY 2017**
Natural gas	**48%**	39%
Coal	**22%**	43%
Purchases	**18%**	12%
Petroleum coke	**12%**	6%
Total	**100%**	100%

Operating expenses, other than fuel and purchased power, increased approximately $20 million, compared to fiscal year 2017.

Maintenance and other operating expenses increased $30 million. The drivers for the increase were a $19 million increase in Scherer capital improvements and operating costs, $14 million in SJRPP renewal and replacement expenses, and $5 million increase in maintenance costs. These increases were offset by an $8 million reduction in SJRPP operating expenses due to the plant shutdown.

Depreciation expense decreased $28 million due to a decrease in the depreciable base, driven by the impairment of the SJRPP capital assets due to the shutdown of the SJRPP plant. State utility and franchise taxes increased $2 million due to higher electric revenue taxable sales. Recognition of deferred costs and revenues, net increased $16 million as a result of higher deferred cost amortization, primarily related to the reduced depreciation for SJRPP capital assets subsequent to the impairment. See note 3, St. Johns River Power Park Decommissioning, for additional details.

Water and Sewer Enterprise

Operating Revenues

Total operating revenues decreased approximately $22 million (4.9%) compared to fiscal year 2017. Water revenues decreased $10 million (5.5%) due to a 2.8% decrease in consumption, which was partially offset by a 2.1% increase in customer accounts. Water consumption decreased 1,058,629 kgals to 36,186,559 kgals. Sewer revenues decreased approximately $4 million (1.6%) primarily related to a 1.4% decrease in sales, which was partially offset by a 2.5% increase in sewer accounts. Sewer sales decreased 372,148 kgals to 26,340,622 kgals. The water and sewer revenue decreases were driven by a 22.4% increase in rain days. Reuse revenues increased approximately $1 million (3.4%), primarily related to a 22.4% increase in reuse accounts, which was partially offset by a 5.2% decrease in sales. Reuse sales decreased 170,572 kgals to 3,119,739 kgals. Water and sewer revenues were impacted by an $11 million net decrease in transfers from stabilization funds. See note 2, Regulatory Deferrals, for additional information. Other operating revenues increased by $2 million due to additional waste disposal revenues.

Operating Expenses

Operating expenses increased $5 million (1.7%), compared to fiscal year 2017. Maintenance and other expenses increased $8 million due to a $5 million increase in professional services, industrial services, and compensation and a $3 million increase in interfund charges. Depreciation expense increased $2 million due to an increase in the depreciable base. Recognition of deferred costs and revenues, net decreased $5 million due to a decrease in environmental projects paid from the rate stabilization fund.

District Energy System

Operating Revenues

Operating revenues remained flat when compared to fiscal year 2017 at $9 million.

Operating Expenses

Operating expenses remained flat when compared to fiscal year 2017 at $7 million.

Nonoperating Revenues and Expenses

2019 Compared to 2018

There was a decrease of approximately $20 million (14.9%) in total nonoperating expenses, net over the prior year. Detailed below are the drivers.

	FY 2019 *(in millions)*
Changes in nonoperating expenses, net	
Write-off of losses on refundings due to defeasances	$ (24)
Investment gains – fair value adjustments	17
Decrease in scheduled interest on debt	16
Increase in investment income	11
Increase in allowance for funds used during construction	2
Cycling of prior year gain on sale of assets	(2)
Decrease in The Energy Authority earnings	(2)
Increase in other nonoperating income - timber	2
Total change in nonoperating expenses, net	$ 20

2018 Compared to 2017

There was a decrease of approximately $18 million (12.1%) in total nonoperating expenses, net over the prior year. Detailed below are the drivers.

	FY 2018 *(in millions)*
Changes in nonoperating expenses, net	
Decrease in interest on debt	$ 16
Investment gains – fair value adjustments	4
Decrease in investment income	(3)
Decrease in The Energy Authority earnings	(2)
Gain on sale of assets	2
Decrease in other nonoperating expenses - timber	2
Increase in other interest expense	(1)
Total change in nonoperating expenses, net	$ 18

Capital Assets and Debt Administration for Fiscal Years 2019 and 2018

Capital Assets

As of September 30, 2019, JEA had approximately $5,465 million in capital assets, net of accumulated depreciation. This included $2,684 million in electric plant, $2,748 million in water and sewer plant, and $33 million in chilled water plant. During fiscal year 2019, capital additions were $487 million, which included $277 million in electric plant, $209 million in water and sewer plant, and $1 million in chilled water plant. As of September 30, 2018, JEA had approximately $5,380 million in capital assets, net of accumulated depreciation. This included $2,662 million in electric plant, $2,683 million in water and sewer plant, and $35 million in chilled water plant. During fiscal year 2018, capital additions were $387 million, which included $183 million in electric plant, $203 million in water and sewer plant, and $1 million in chilled water plant. Also during fiscal year 2018, a $451 million write down was recorded to the Electric Enterprise capital accounts due to the shutdown of the SJRPP power plant. More detailed information is presented in note 3, St. Johns River Power Park Decommissioning, to the financial statements.

With the adoption of the depreciation ratemaking policy in 2014, the depreciation of contributed assets are not included in rates charged to customers, because it has already been recovered with the contribution. In accordance with GASB 62, the contributed assets will be expensed in capital contributions as a reduction of plant cost through contributions. During fiscal year 2019, $5 million of contributed capital related to the Electric System and $62 million related to Water and Sewer System was recorded as a reduction of plant cost through contributions. During fiscal year 2018, $2 million of contributed capital related to the Electric System and $52 million related to Water and Sewer System was recorded as a reduction of plant cost through contributions.

JEA has ongoing capital improvement programs for the Electric Enterprise Fund and the Water and Sewer Fund. The capital programs consist of: (a) the Electric Enterprise Fund capital requirements for improvements to existing generating facilities that are determined to be necessary as a result of JEA's annual resource planning process; (b) the Electric Enterprise Fund's capital requirements for transmission and distribution facilities and other capital items; and (c) the Water and Sewer Fund capital requirements that are determined to be necessary as a result of the annual resource planning process. The cost of the capital improvement program is planned to be provided from revenues generated from operations and existing construction fund balances.

Scherer is subject to a joint ownership agreement. JEA's share of the estimated capital expenditures relating to this plant is $10 million and is included in the Electric Enterprise Fund amount above.

Debt Administration

Debt outstanding at September 30, 2019, was $3,621 million, a decrease of approximately $379 million from the prior fiscal year. This decrease was due to defeasance of principal of $195 million and regular principal payments of $186 million, being partially offset by new debt issued of $2 million.

Debt outstanding at September 30, 2018, was $3,999 million, a decrease of approximately $402 million from the prior fiscal year. This decrease was due to defeasance of principal of $994 million and regular principal payments of $229 million, being partially offset by new debt issued of $821 million.

JEA's debt ratings on its long-term debt per Standard & Poor's and Fitch remained unchanged from fiscal year 2018. On October 11, 2018, Moody's Investors Service lowered its ratings with respect to the Bonds of JEA as follows:

(a) with respect to Electric System Revenue Bonds, Bulk Power Supply System Revenue Bonds, and SJRPP System Revenue Bonds, the long-term debt ratings were lowered from "Aa2" to "A2";

(b) with respect to Electric System Subordinated Revenue Bonds, the long-term ratings were lowered from "Aa3" to "A3";

(c) with respect to Water and Sewer Revenue Bonds and Water and Sewer Subordinated Revenue Bonds, the long term ratings were lowered from "Aa2" to "A2"; and

(d) with respect to DES Revenue Bonds, the long-term ratings were lowered from "Aa3" to "A3".

	2019					2018				
	Electric System	**Water and Sewer System**	**SJRPP**	**Scherer**	**District Energy System**	**Electric System**	**Water and Sewer System**	**SJRPP**	**Scherer**	**District Energy System**
Senior debt:										
Moody's Investors Service	**A2**	**A2**	**A2**	**A2**	**A3**	Aa2	Aa2	Aa2	Aa2	Aa3
Standard & Poor's	**A+**	**AAA**	**A+**	**A+**	**AA+**	A+	AAA	A+	A+	AA+
Fitch	**AA**	**AA**	**AA**	**AA**	**AA**	AA	AA	AA	AA	AA
Subordinated debt:										
Moody's Investors Service	**A3**	**A2**	*	*	*	Aa3	Aa2	*	*	*
Standard & Poor's	**A**	**AA+**	*	*	*	A	AA+	*	*	*
Fitch	**AA**	**AA**	*	*	*	AA	AA	*	*	*

* There are no subordinated bonds related to this system.

Currently Known Facts Expected to have a Significant Effect on Financial Position and/or Changes in Operations

Setting of Rates

The setting of rates is the responsibility of the Board. Base rate changes are implemented after a public rate hearing and Board approval. Fuel rate changes are implemented solely with Board approval.

JEA has an ongoing plan to review, update and, where possible, expand its rate options to provide customers more rate choices for their utility services. As part of this initiative, the Board approved, at its March 2019 meeting, the following two changes to the electric tariff:

- Residential Demand Rate Pilot modifications to continue evaluating a pricing platform that may provide revenue stability, deliver positive customer impact, and promote efficient system utilization and

- removal of the expiration date of the JEA SolarMax Rider to continue to provide large commercial customers a choice to have up to 100 percent of their business's energy needs met by solar power.

Requests for Information

The financial report is designed to provide a general overview of JEA's finances for all those with an interest in JEA's finances. Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Controller, JEA, 21 West Church Street, Jacksonville, Florida, 32202.

Audited Financial Statements

JEA

Statements of Net Position
(In Thousands)

	September 2019	September 2018
Assets		
Current assets:		
Cash and cash equivalents	**$ 414,438**	$ 441,206
Investments	**2,399**	85,310
Customer accounts receivable, net of allowance ($1,341 for 2019 and $1,830 for 2018)	**226,848**	232,858
Inventories:		
Materials and supplies	**58,962**	59,204
Fuel	**30,898**	36,871
Other current assets	**19,592**	18,290
Total current assets	**753,137**	873,739
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	**265,784**	114,576
Investments	**380,250**	731,627
Accounts and interest receivable	**1,071**	62
Total restricted assets	**647,105**	846,265
Costs to be recovered from future revenues	**851,046**	808,096
Other assets	**19,016**	22,686
Total noncurrent assets	**1,517,167**	1,677,047
Net capital assets	**5,465,444**	5,380,259
Total assets	**7,735,748**	7,931,045
Deferred outflows of resources		
Unrealized pension contributions and losses	**131,554**	171,367
Unamortized deferred losses on refundings	**108,875**	143,722
Accumulated decrease in fair value of hedging derivatives	**161,485**	86,356
Unrealized asset retirement obligation	**50,329**	29,173
Unrealized OPEB contributions and losses	**9,100**	4,078
Total deferred outflows of resources	**461,343**	434,696
Total assets and deferred outflows of resources	**$ 8,197,091**	$ 8,365,741

See accompanying notes to financial statements.

JEA

Statements of Net Position (continued)

(In Thousands)

	September 2019	2018
Liabilities		
Current liabilities:		
Accounts and accrued expenses payable	**$ 53,827**	$ 81,770
Customer deposits and prepayments	**73,974**	70,213
Billings on behalf of state and local governments	**26,292**	25,970
Current portion of asset retirement obligations	**18,884**	6,646
Compensation and benefits payable	**17,228**	12,688
City of Jacksonville payable	**10,269**	9,957
Total current liabilities	**200,474**	207,244
Current liabilities payable from restricted assets:		
Debt due within one year	**192,555**	185,790
Interest payable	**64,775**	73,737
Renewal and replacement reserve	**46,955**	54,370
Construction contracts and accounts payable	**66,775**	53,369
Total current liabilities payable from restricted assets	**371,060**	367,266
Noncurrent liabilities:		
Net pension liability	**566,372**	544,203
Asset retirement obligation	**31,445**	22,526
Net OPEB liability	**18,256**	18,835
Other liabilities	**59,840**	49,227
Total other noncurrent liabilities	**675,913**	634,791
Long-term debt:		
Debt payable, less current portion	**3,428,080**	3,813,680
Unamortized premium, net	**118,125**	152,891
Fair value of debt management strategy instruments	**149,887**	86,356
Total long-term debt	**3,696,092**	4,052,927
Total liabilities	**4,943,539**	5,262,228
Deferred inflows of resources		
Revenues to be used for future costs	**238,690**	286,832
Unrealized pension gains	**50,880**	50,124
Unrealized OPEB gains	**11,249**	8,712
Accumulated increase in fair value of hedging derivatives	**-**	2,536
Total deferred inflows of resources	**300,819**	348,204
Net position		
Net investment in capital assets	**2,248,863**	1,856,725
Restricted for:		
Capital projects	**165,186**	331,157
Debt service	**193,063**	187,172
Other purposes	**42,005**	23,708
Unrestricted	**303,616**	356,547
Total net position	**2,952,733**	2,755,309
Total liabilities, deferred inflows of resources, and net position	**$ 8,197,091**	$ 8,365,741

See accompanying notes to financial statements.

JEA

Statements of Revenues, Expenses, and Changes in Net Position

(In Thousands)

	September 2019	September 2018
Operating revenues		
Electric	**$ 1,259,815**	$ 1,267,202
Water and sewer	**450,116**	423,480
District energy system	**8,504**	8,348
Other	**33,526**	90,952
Total operating revenues	**1,751,961**	1,789,982
Operating expenses		
Operations and maintenance:		
Fuel	**330,328**	421,052
Purchased power	**135,245**	109,194
Maintenance and other operating expenses	**395,692**	431,269
Depreciation	**362,313**	360,609
State utility and franchise taxes	**71,569**	70,027
Recognition of deferred costs and revenues, net	**44,792**	6,856
Total operating expenses	**1,339,939**	1,399,007
Operating income	**412,022**	390,975
Nonoperating revenues (expenses)		
Interest on debt	**(175,046)**	(166,508)
Investment income	**39,745**	11,826
Allowance for funds used during construction	**14,099**	11,764
Other nonoperating income, net	**9,082**	9,857
Earnings from The Energy Authority	**2,412**	4,074
Other interest, net	**(1,626)**	(1,825)
Total nonoperating expenses, net	**(111,334)**	(130,812)
Income before contributions	**300,688**	260,163
Contributions (to) from		
General Fund, City of Jacksonville, Florida	**(132,802)**	(116,620)
Developers and other	**97,726**	82,157
Reduction of plant cost through contributions	**(68,188)**	(54,114)
Total contributions, net	**(103,264)**	(88,577)
Special items	**-**	(45,099)
Change in net position	**197,424**	126,487
Net position, beginning of year	**2,755,309**	2,628,822
Net position, end of year	**$ 2,952,733**	$ 2,755,309

See accompanying notes to financial statements.

JEA

Statements of Cash Flows
(In Thousands)

	September 2019	September 2018
Operating activities		
Receipts from customers	**$ 1,679,527**	$ 1,740,598
Payments to suppliers	**(709,908)**	(799,895)
Payments to employees	**(233,377)**	(258,636)
Other operating activities	**33,088**	84,869
Net cash provided by operating activities	**769,330**	766,936
Noncapital and related financing activities		
Contribution to General Fund, City of Jacksonville, Florida	**(132,707)**	(116,569)
Net cash used in noncapital and related financing activities	**(132,707)**	(116,569)
Capital and related financing activities		
Defeasance of debt	**(195,045)**	(993,690)
Proceeds received from debt	**2,000**	821,000
Acquisition and construction of capital assets	**(466,730)**	(375,544)
Repayment of debt principal	**(185,790)**	(229,095)
Interest paid on debt	**(169,836)**	(182,849)
Capital contributions	**29,538**	28,043
Other capital financing activities	**(3,835)**	63,197
Net cash used in capital and related financing activities	**(989,698)**	(868,938)
Investing activities		
Purchase of investments	**(415,403)**	(1,037,966)
Proceeds from sale and maturity of investments	**863,004**	1,179,471
Investment income	**27,471**	15,301
Distributions from The Energy Authority	**2,443**	3,513
Net cash provided by investing activities	**477,515**	160,319
Net change in cash and cash equivalents	**124,440**	(58,252)
Cash and cash equivalents at beginning of year	**555,782**	614,034
Cash and cash equivalents at end of year	**$ 680,222**	$ 555,782
Reconciliation of operating income to net cash provided by operating activities		
Operating income	**$ 412,022**	$ 390,975
Adjustments:		
Depreciation and amortization	**363,534**	361,889
Recognition of deferred costs and revenues, net	**44,792**	6,856
Other nonoperating income, net	**2,035**	1,073
Changes in noncash assets and noncash liabilities:		
Accounts receivable	**(2,403)**	26,486
Accounts receivable, restricted	**8**	16
Inventories	**6,215**	46,419
Other assets	**2,418**	(2,612)
Accounts and accrued expenses payable	**(22,743)**	979
Current liabilities payable from restricted assets	**(5,299)**	(49,998)
Other noncurrent liabilities and deferred inflows	**(31,249)**	(15,147)
Net cash provided by operating activities	**$ 769,330**	$ 766,936
Noncash activity		
Contribution of capital assets from developers	**$ 68,188**	$ 54,114
Unrealized gains (losses) on fair value of investments, net	**$ 13,314**	$ (3,386)

See accompanying notes to financial statements.

(Dollars in Thousands)

1. Summary of Significant Accounting Policies and Practices

(a) Reporting Entity

JEA is currently organized into three enterprise funds – Electric Enterprise, Water and Sewer, and District Energy System (DES). Electric Enterprise is comprised of the Electric System; the Bulk Power Supply System (Scherer), which consists of Scherer Unit 4, a coal-fired, 846-megawatt generating unit operated by Georgia Power Company (Georgia Power) and owned by JEA (23.64% ownership interest) and Florida Power & Light Company (FPL) (76.36% ownership interest); and St. Johns River Power Park System (SJRPP), which is jointly owned and operated by JEA (80% ownership interest) and FPL (20% ownership interest). Water and Sewer consists of water and sewer system activities. DES consists of chilled water activities. Separate accounting records are currently maintained for each system. These financial statements include JEA's ownership interest in Scherer. The following information relates to JEA's ownership interest in Scherer as of September 30, 2019 and 2018:

	2019	2018
Inventories	**$ 4,753**	$ 7,463
Costs to be recovered from future revenues	**3,970**	6,155
Capital assets, net	**127,207**	135,595
Unrealized asset retirement obligations	**32,282**	-
Current portion of asset retirement obligations	**837**	-
Debt due within one year	**6,150**	5,710
Asset retirement obligations	**31,445**	-
Long-term debt	**88,403**	94,602
Revenues to be used for future costs	**33,682**	37,560

The funds are governed by the JEA Board of Directors (Board). The Board is responsible for setting rates based on operating and maintenance expenses and depreciation of the operations. The operations of Scherer and SJRPP are subject to joint ownership agreements and rates are established on a cost-of-service basis, including operating and maintenance expenses and debt service. See note 1(t), Setting of rates.

At the July 23, 2019 board meeting, the JEA board authorized JEA's senior leadership team to explore four different forms of ownership: 1) community ownership, 2) initial public offering, 3) private placement offering equity shares, or 4) a conversion to a corporation with controlling interest purchased by a tech-focused company, oil and gas-focused company, or utility company. On August 2, 2019, as part of this process, JEA issued an invitation to negotiate (ITN) for strategic alternatives. Negotiations are ongoing with the nine respondents that have been moved to the negotiation phase. The impact to JEA's financial reporting of the results of the ITN process is unknown at this time.

1. Summary of Significant Accounting Policies and Practices (continued)

(b) Basis of Accounting

JEA is presenting financial statements combined for the Electric Enterprise Fund, the Water and Sewer Fund, and the District Energy System. JEA uses the accrual basis of accounting for its operations and the uniform system of accounts prescribed by the Federal Energy Regulatory Commission for the Electric Enterprise Fund and the National Association of Regulatory Utility Commissioners for the Water and Sewer Fund.

The financial statements have been prepared in conformity with the Governmental Accounting Standards Board (GASB) codification, which defines JEA as a component unit of the City of Jacksonville, Florida (City). Accordingly, the financial statements of JEA are included in the Comprehensive Annual Financial Report of the City.

JEA presents its financial statements in accordance with the GASB pronouncements that establish standards for external financial reporting for all state and local governmental entities that include a statement of net position, a statement of revenues, expenses, and changes in net position, and a statement of cash flows. It requires the classification of net position into three components – net investment in capital assets, restricted, and unrestricted. These classifications are defined as follows:

- Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any debt that is attributable to those assets and increased/reduced by costs to be recovered from future revenues or revenues to be used for future costs.

- Restricted consists of assets that have constraints placed upon their use through external constraints imposed either by creditors (such as through debt covenants) or through laws, regulations, or constraints imposed by law through constitutional provisions or enabling legislation, reduced by any liabilities to be paid from these assets.

- Unrestricted consists of net position that does not meet the definition of restricted or net investment in capital assets.

JEA's bond resolutions specify the flow of funds from revenues and specify the requirements for the use of certain restricted and unrestricted assets.

(c) Revenues

Operating revenues are defined as revenues generated from the sale of primary products or services through normal business operations. Nonoperating revenues include investment income and earnings from investments recorded on the equity method.

(Dollars in Thousands)

1. Summary of Significant Accounting Policies and Practices (continued)

Operating revenues reported in the accompanying statements of revenues, expenses, and changes in net position are shown net of discounts, estimated allowances for bad debts, and amounts transferred to stabilization funds. Discounts and allowances totaled $34,996 in fiscal year 2019 and $32,441 in 2018. JEA withdrew the net amount of $36,713 in fiscal year 2019 and $15,813 in 2018 from stabilization funds. Electric Enterprise and Water and Sewer Fund revenues are recorded as earned. JEA earned 0.1% of its electric revenue from billings to FPL in fiscal year 2019 and 2.4% in 2018. Operating revenues include amounts estimated for unbilled services provided during the reporting period of $78,973 in 2019 and $82,576 in 2018.

(d) Capital Assets

Utility plant represents four classes of capital assets – real property, tangible property, tangible personal property, and intangible property. All capital assets are recorded at historical cost and must have a useful life greater than one year. The costs of capital asset additions and replacements are capitalized. The costs of capital projects include direct labor and benefits of JEA employees working on capital projects and an allocation of overhead from certain JEA departments. Maintenance and replacements of minor items are charged to operating expenses. The cost of depreciable plant retired is removed from the capital asset accounts and such cost plus removal expense less salvage value is charged to accumulated depreciation.

SJRPP and Scherer are required by its bond resolutions to deposit certain amounts in a renewal and replacement fund. These amounts are then required to be expended on capital expenditures to maintain and improve the system or applied to other designated uses as specifically allowed under the bond resolutions. The Electric Fund records the amounts deposited in the fund as a purchased power expense when deposited. The purchase of capital assets funded from the renewal and replacement fund is not capitalized by SJRPP or Scherer.

(e) Allowance for Funds Used During Construction

An allowance for funds used during construction (AFUDC) is included in construction work-in-progress and as a reduction of interest expense. JEA capitalizes interest on construction projects financed with revenue bonds and renewal and replacement funds. The average AFUDC rate for the debt of each system is listed in the table below.

Average AFUDC Rate (%)	**2019**	**2018**
Electric Enterprise Fund	**4.4%**	4.3%
Water and Sewer Fund	**4.3%**	4.3%
District Energy System	**3.8%**	3.7%

The amount capitalized is the interest cost of the debt less any interest earned on investment of debt proceeds from the date of the borrowing until the assets are placed in service. Total interest incurred was $175,046 for fiscal year 2019 and $166,508 for 2018, of which $14,099 was capitalized in fiscal year 2019 and $11,764 in 2018. Investment income on bond proceeds was $186,189 in fiscal year 2019 and $0 in 2018.

(Dollars in Thousands)

1. Summary of Significant Accounting Policies and Practices (continued)

(f) Depreciation

Depreciation of capital assets is computed on a straight-line basis at rates based upon the estimated service lives of the various property classes. Depreciation begins on the date the assets are placed in service. Generally, recurring renewal and replacement capital additions are placed in service at the end of each fiscal year. The depreciation rates are based on depreciation studies performed by an outside consultant that are updated periodically. The latest depreciation study was completed during fiscal year 2019 and the rates for that study become effective in fiscal year 2020. The effective rate of depreciation based upon the average depreciable plant in service balance was 3.18% and 3.24% for fiscal years 2019 and 2018, respectively. The average depreciable life in years of the depreciable capital assets for each system is listed in the table below.

Average Depreciable Life *(Years)*	**2019**	**2018**
Electric Enterprise Fund	**23.7**	23.9
Water and Sewer Fund	**27.4**	27.6
District Energy System	**23.7**	23.7

(g) Amortization

Amortization of bond discounts and premiums is computed on a straight-line basis, which approximates the effective-interest method over the remaining term of the outstanding bonds.

(h) Losses on Refundings

Losses on refundings of JEA revenue bonds are deferred and amortized as a component of interest on debt using the straight-line method over the remaining life of the old debt or the new debt, whichever is shorter. Unamortized deferred losses on refundings are reported as deferred outflows of resources on the accompanying statements of net position. Whereas JEA has incurred accounting losses on refundings, calculated as the difference between the net carrying value of the refunded and the refunding bonds, JEA has over time realized economic gains calculated as the present value difference in the future debt service on the refunded and refunding bonds.

(i) Investments

Investments are presented at fair value or cost, which is further explained in note 14, *Fair Value Measurements*. Realized and unrealized gains and losses for all investments are included in investment income on the statements of revenues, expenses, and changes in net position. The investment in The Energy Authority (TEA) is recorded on the equity method (see note 7, Investment in The Energy Authority, for additional information).

1. Summary of Significant Accounting Policies and Practices (continued)

(j) Cash and Cash Equivalents

For purposes of reporting cash flows, cash and cash equivalents include cash on hand, bank demand accounts, money market mutual funds, and short-term liquid investments purchased with an original maturity of 90 days or less.

(k) Interest Rate Swap Agreements

JEA's risk management policies allow for the use of interest rate swaps to manage financial exposures, but prohibit the use of these instruments for speculative or trading purposes. JEA utilizes interest rate swaps to manage the interest rate risk associated with various assets and liabilities. Interest rate swaps are used in the area of debt management to take advantage of favorable market interest rates. Interest rate swaps are authorized under the policy to be used in the area of investment management to increase the yield on revolving short-term investments.

JEA applies GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* (GASB 53), where applicable for effective hedging instruments. For effective hedging instruments, the changes in fair value are recorded on the statements of net position as deferred outflows and inflows of resources. For ineffective hedging instruments or investment derivatives, the changes in fair value are recorded on the statements of revenues, expenses, and changes in net position as an adjustment to investment income.

Under JEA's interest rate swap programs, JEA either pays a variable rate of interest, which is based on various indices, and receives a fixed rate of interest for a specified period of time (unless earlier terminated) or JEA pays a fixed rate of interest and receives a variable rate of interest, which is based on various indices for a specified period of time (unless earlier terminated). These indices are affected by changes in the market. The net amounts received or paid under the swap agreements are recorded as either an adjustment to investment income (asset management) or interest on debt (debt management) in the statements of revenues, expenses, and changes in net position. No money is initially exchanged when JEA enters into a new interest rate swap transaction.

During fiscal years 2019 and 2018, JEA did not have any interest rate swaps outstanding under JEA's asset management interest rate swap program. See the Debt Management Strategy section in note 8, Long-Term Debt, for more information on JEA's debt management interest rate swap program.

(l) Inventory

Inventories are maintained for fuel and materials and supplies. Fuel inventories are maintained at levels sufficient to meet generation requirements. Inventories are valued at average cost, with obsolete items being expensed when identified.

1. Summary of Significant Accounting Policies and Practices (continued)

(m) Energy Market Risk Management Program

The energy market risk management program is intended to help manage the risk of changes in the market prices of fuel consumed by JEA for electric generation. JEA executes over-the-counter forward purchase and sale contracts and swaps. For effective derivative transactions, hedge accounting is applied in accordance with GASB 53 and the fair market value changes are recorded on the accompanying statements of net position as either a deferred outflow of resources or a deferred inflow of resources until such time that the transactions end. The related settled gains and losses from these transactions are recognized as fuel expenses on the accompanying statements of revenues, expenses, and changes in net position.

(n) Capital Contributions

Capital contributions represent contributions of cash and capital assets from the City, developers, customers, and other third parties. Capital contributions are recorded in the accompanying statement of revenues, expenses, and changes in net position at the time of receipt. Assets received are recorded as contributions from developers and others at acquisition cost. Corresponding expenses of $68,188 and $54,114 were recorded in fiscal years 2019 and 2018 to recognize the costs of the assets since it will not be included in revenue requirements charged to customers in the future.

(o) Pension

For purposes of measuring the net liability, deferred outflows of resources and deferred inflows of resources related to pensions, pension expense and fiduciary net position; JEA's portion of the City's General Employees' Retirement Plan (GERP) and St. Johns River Power Park System Employees' Retirement Plan (SJRPP Plan) have been determined on the same basis as reported in the GERP and SJRPP Plan financial statements. Employer contributions made subsequent to the measurement date and before the fiscal year end are recorded as a deferred outflow of resources.

Basis of Accounting – The pension trust financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contribution, benefit payments and refunds are recognized when due and payable in accordance with the terms of the plans. Florida law and the Florida Division of Retirement require plan contributions be made annually in amounts determined by an actuarial valuation stated as a percent of covered payroll or in dollars. The Florida Division of Retirement reviews and approves the GERP actuarial report to ensure compliance with actuarial standards. The SJRPP Plan is governed by a three-member Pension Committee to ensure compliance with actuarial standards.

1. Summary of Significant Accounting Policies and Practices (continued)

Method Used to Value Investments – Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. The fair value of real estate investments in GERP is based on independent appraisals or estimates of fair value as provided by third-party fund managers. Investments that do not have an established market are reported at estimated fair value as provided by third-party fund managers. Investments are managed by third-party money managers while cash and securities are generally held by the independent custodians.

(p) Compensated Absences

JEA employees accumulate earned personal leave benefits (compensated absences) at various rates within limits specified in collective bargaining agreements and other employment plans. Accrued leave may be taken at any time when authorized. In addition, employees may elect to sell back any leave accrued during the fiscal year. Leave accrued over the maximum allowed leave balances is paid to the employee after the end of the fiscal year.

Upon termination from employment, employees are paid for their unused leave balances. In accordance with GASB Statement No. 16, *Accounting for Compensated Absences* (GASB 16), the amount reflected as the current portion is estimated based upon historical trends of retirements and attrition.

This liability reflects amounts attributable to employee services already rendered, cumulative, probable for payment, and reasonably estimated in conformity with GASB 16.

Compensated absences liabilities are accrued when incurred in the financial statements in conformity with generally accepted accounting principles (GAAP). The compensated absences liability is determined based on current rates of pay.

The compensated absence liability as of September 30, 2019 was $32,094. Of this amount, $2,660 was included in compensation and benefits payable on the accompanying statements of net position. The remaining balance of $29,434 was included in other liabilities on the accompanying statements of net position. During fiscal year 2019, annual leave earned totaled $22,794 and annual leave taken totaled $21,583. The compensated absence liability as of September 30, 2018, was $30,854. Of this amount, $1,423 was included in compensation and benefits payable on the accompanying statements of net position. The remaining balance of $29,431 was included in other liabilities on the accompanying statements of net position. During fiscal year 2018, annual leave earned totaled $21,983 and annual leave taken totaled $22,788.

(q) Pollution Remediation Obligations

JEA applies GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*. See note 15, Commitments and Contingent Liabilities, for further discussion.

1. Summary of Significant Accounting Policies and Practices (continued)

(r) Asset Retirement Obligations

JEA applies GASB Statement No. 83, *Certain Asset Retirement Obligations* (GASB 83). See note 3, Asset Retirement Obligations, for further discussion.

(s) Costs to Be Recovered from Future Revenues/Revenues to Be Used for Future Costs

JEA records certain assets and liabilities (or deferred inflows) that result from the effects of the ratemaking process that would not be recorded under GAAP for nonregulated entities. Currently, the electric utility industry is predominantly regulated on a basis designed to recover the cost of providing electric power to its customers. If cost-based regulation were to be discontinued in the electric industry for any reason, market prices for electricity could be reduced or increased and utilities might be required to reduce their statements of net position amounts to reflect market conditions.

Discontinuance of cost-based regulation could also require affected utilities to write off their associated regulatory assets and liabilities. Management cannot predict the potential impact, if any, of the change in the regulatory environment on JEA's future financial position and results of operations.

(t) Setting of Rates

The setting of rates is the responsibility of the Board. Base rate changes are implemented after a public rate hearing and Board approval. Fuel rate changes are implemented solely with Board approval.

JEA has an ongoing plan to review, update and, where possible, expand its rate options to provide customers more rate choices for their utility services. As part of this initiative, the Board approved, at its March 2019 meeting, the following two changes to the electric tariff:

- Residential Demand Rate Pilot modifications to continue evaluating a pricing platform that may provide revenue stability, deliver positive customer impact, and promote efficient system utilization and
- removal of the expiration date of the JEA SolarMax Rider to continue to provide large commercial customers a choice to have up to 100 percent of their business's energy needs met by solar power.

(u) Reclassifications

Certain 2018 amounts have been reclassified to conform to the 2019 presentation.

1. Summary of Significant Accounting Policies and Practices (continued)

(v) Pervasiveness of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and deferred outflows of resources, liabilities and deferred inflows of resources, and disclosure of contingent assets at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(w) Newly Adopted Standards for Fiscal Year 2019

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The objective of this statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. This statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. For notes to financial statements related to debt, this statement also requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. See note 8, Long-Term Debt, for the additional disclosures.

(x) Recently Issued Accounting Pronouncements Not Yet Effective

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. This statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. This statement is effective for JEA in fiscal year 2020. The impact on JEA's financial reporting will be the reporting of its pension and other postemployment benefit plans in fiduciary fund financial statements.

1. Summary of Significant Accounting Policies and Practices (continued)

In June 2017, GASB issued Statement No. 87, *Leases*. The objective of this statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. This statement is effective for JEA in fiscal year 2021. The impact on JEA's financial reporting has not been determined.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. The objectives of this statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. However, GASB allows those entities meeting the criteria for regulated operations, and electing to apply the related provisions of Statement 62, to continue to capitalize qualifying interest cost as a regulatory asset. This statement is effective for JEA in fiscal year 2021. The impact on JEA's financial reporting has not been determined.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61*. The objectives of this statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. This statement is effective for JEA in fiscal year 2020. The implementation of this statement is not expected to have an impact on JEA's financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*. The primary objectives of this statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. This statement is effective for JEA in fiscal year 2022. The implementation of this statement is not expected to have an impact on JEA's financial statements.

(Dollars in Thousands)

2. Regulatory Deferrals

Based on regulatory action taken by the Board and in accordance with the Regulated Operations section within GASB Statement 62, JEA has recorded the following regulatory assets and liabilities that will be included in the ratemaking process and recognized as expenses and revenues, respectively, in future periods. These amounts are shown under costs to be recovered from future revenues or deferred inflows of resources on the accompanying statements of net position.

Regulatory Assets

The following is a summary of JEA's regulatory assets at September 30:

Regulatory Asset	2019	2018
Unfunded pension costs	**$ 485,698**	$ 433,583
SJRPP and Bulk Power cost to be recovered	**248,343**	264,526
Environmental projects	**74,129**	59,859
Unfunded OPEB costs	**20,405**	23,469
Storm costs to be recovered	**15,683**	18,966
Debt issue cost	**6,788**	7,693
Total regulatory assets	**$ 851,046**	$ 808,096

Unfunded Pension Costs – Accrued pension represents a regulatory asset related to unrecognized actuarial gains and losses, unrecognized prior service cost, and unrecognized transition obligation. In fiscal year 2019, the balance includes amounts attributable to JEA's portion of the GERP and amounts related to the SJRPP Plan. In fiscal year 2018, the asset consisted of amounts attributable to JEA's portion of the GERP. For the SJRPP pension plan, JEA made excess contributions during fiscal year 2018 that resulted in a regulatory liability. See excess pension contributions in the Regulatory Liabilities section of this footnote. The regulatory asset is amortized with the recognition of actuarial gains and losses, prior service cost, and transition obligations to net periodic benefit costs for pension.

2. Regulatory Deferrals (continued)

SJRPP and Bulk Power costs to be recovered – SJRPP deferred debt-related costs of $245,104 at September 30, 2019 and $259,165 at September 30, 2018 are the result of differences between expenses in determining rates and those used in financial reporting. During fiscal year 2018, operations of SJRPP, as generating facility, ceased and the majority of the assets were dismantled. A write down of $451,037 of undepreciated book value of the assets was recognized during fiscal year 2018 and $128,280 of bonds were defeased as a result of the shutdown of SJRPP. As of September 30, 2019, SJRPP has remaining plant in service assets of $9,734 and outstanding debt of $278,885. The details relating to the shutdown of SJRPP are further discussed in the St. Johns River Power Park section of note 3, Asset Retirement Obligations. The JEA board approved the deferral of this regulatory asset. SJRPP has a contract with the JEA Electric System to recover these costs from future revenues that will coincide with retirement of long-term debt. The amount recovered each year will be the difference between debt principal maturities (adjusted for the effects of premiums, discounts, and amortization of gains and losses) and straight-line depreciation and results in recognition of deferred costs on the accompanying statements of revenues, expenses, and changes in net position. The Bulk Power Supply System deferred debt-related costs were $3,239 at September 30, 2019 and $5,361 at September 30, 2018. The amount recovered each year will be the difference between debt principal maturities (adjusted for the effects of premiums, discounts, and amortization of gains and losses) and straight-line depreciation. The Bulk Power Supply System will recover these costs from future revenues that will coincide with the retirement of long-term debt.

Environmental Projects – The Board approved the recovery of previously approved water environmental capital projects that had not been collected through the environmental surcharge over a ten-year period beginning October 1, 2015. The amount approved for recovery and transferred out of capital assets was $101,277 of which $51,307 and $59,859 remained unrecovered as of September 30, 2019 and 2018, respectively. This deferral is being amortized over ten years. The Board also approved the recovery of previously approved electric environmental capital projects that had not been collected through the environmental surcharge over a five-year period beginning October 1, 2018. The amount approved for recovery and transferred out of capital assets was $28,527 of which $22,822 remained unrecovered as of September 30, 2019. This deferral is being amortized over five years.

Unfunded OPEB Costs – Accrued OPEB represents a regulatory asset related to unrecognized actuarial gains and losses, unrecognized prior service cost, and unrecognized transition obligation attributable to JEA's other postemployment benefit plan. The regulatory asset is amortized with the recognition of actuarial gains and losses, prior service cost, and transition obligations to net periodic benefit costs for OPEB. The Board approved the recovery of the unfunded amounts in future revenue requirements with the adoption of GASB 75 in fiscal year 2018. In addition, the Board approved the deferral of the difference between the annual contributions (funding) and OPEB expense.

Storm costs to be recovered – This amount represents storm costs that are expected to be recovered from insurance and the Federal Emergency Management Agency (FEMA). See note 16, Storm Costs, for further details.

Debt issue costs – With the application of regulatory accounting in fiscal year 2015, the Board approved deferral of the issue costs on all new debt issues with the amounts being amortized over the life of the bonds, as they are included in revenue requirements. These costs are incurred in connection with the issuance of debt obligations and are mainly underwriter fees and legal costs.

(Dollars in Thousands)

2. Regulatory Deferrals (continued)

Regulatory Liabilities

The following is a summary of JEA's regulatory liabilities at September 30:

Regulatory Liabilities	**2019**	**2018**
Fuel stabilization	**$ 47,153**	$ 74,376
Environmental	**41,319**	55,077
Nonfuel purchase power	**56,870**	53,493
Debt management stabilization	**44,093**	44,093
Bulk Power revenues to be used for future costs	**33,682**	37,560
Excess pension contributions	**–**	10,624
Self-insurance medical reserve	**11,210**	8,139
Customer benefit stabilization	**4,363**	3,470
Total regulatory liabilities	**$ 238,690**	$ 286,832

Fuel stabilization – This account represents the difference between the fuel costs incurred and fuel charge revenues collected from customers, inclusive of accrued utility revenue and fuel costs. Net expense incurred in excess of the revenue collected and recognized as a reduction of the regulatory liability during fiscal years 2019 and 2018 was $27,223 and $57,339, respectively.

Environmental – The Board has authorized an environmental surcharge that is applied to all electric customer kilowatt-hour and water customer kilogallon sales. Electric costs included in the surcharge include all costs of environmental remediation and compliance with new and existing environmental regulations, excluding the amount already collected in the Environmental Liability Reserve. Water costs included in the surcharge include operating and capital costs of environmentally driven or regulatory required projects approved by the Board to be included in the surcharge. Any amounts under or over-collected are recorded as a regulatory asset or liability. During fiscal year 2019, $32,678 was collected through the surcharge with $14,257 of recovery of previously approved environmental capital projects, $26,827 of capital projects, and $5,352 of operations and maintenance costs being incurred with the remaining $13,758 recognized as a reduction of the regulatory liability. During fiscal year 2018, $31,401 was collected through the surcharge with $8,551 of recovery of previously approved environmental capital projects, $6,169 of capital projects, and $3,234 of operations and maintenance costs being incurred with the remaining $13,447 recognized as an addition to the regulatory liability.

Nonfuel purchased power – JEA entered into a power purchase agreement related to the Alvin W. Vogtle Nuclear Plant in Burke County, Georgia (Plant Vogtle). This agreement is discussed in further detail in note 10, Fuel Purchase and Purchased Power Commitments. Related to that agreement, the JEA Board approved a nonfuel purchased power stabilization fund to balance the timing of the payments for Plant Vogtle's debt service with the anticipated in service date. It may be used for other purposes with the Board's approval. The amounts included in the fund are to be used for Plant Vogtle or refunded to customers if not needed. Deposits made to the stabilization fund were $17,566 and $40,000 for fiscal years 2019 and 2018, respectively.

(Dollars in Thousands)

2. Regulatory Deferrals (continued)

Debt management stabilization – The Board has authorized the use of a debt management stabilization fund. Amounts are included in the fund based on differences between budgeted and actual debt cost up to an established maximum reserve fund. At the September 2019 board meeting, the Board approved the elimination of the debt management stabilization fund and the use of the corresponding funds to execute Phase 2 of the Strategic and Timely Asset Realignment (STAR) plan. See note 18, Subsequent Events, for more information.

Bulk Power revenues to be used for future costs – This amount represents Bulk Power Supply System early debt principal paid in excess of straight-line depreciation.

Excess pension contributions – Excess pensions contributions represents a regulatory liability related to unrecognized actuarial gains and losses, unrecognized prior service cost, and unrecognized transition obligation attributable to the SJRPP Plan. The regulatory liability is amortized with the recognition of actuarial gains and losses, prior service cost, and transition obligations to net periodic benefit costs for pension.

Self-insurance medical reserve – The Board has established, from operating revenues, an internally designated "Health Self-Insurance Fund" to cover reserve requirements for its self-insurance health program over medical and prescription benefits. The Board, as part of the budget process, will approve amounts to be collected in rates that include both the current anticipated cost less approved amounts to be contributed by employees as well as amounts to maintain an adequate reserve for future costs.

Under the self-insurance program, JEA is liable for all claims. JEA retains an additional stop-loss policy for claims in excess of $250 per employee. There have been no significant reductions in coverage from the prior year. The health insurance benefits program is administered through a third-party insurance company and, as such, the administrator is responsible for processing the claims in accordance with the benefit specifications with JEA reimbursing the insurance company for its payouts. Liabilities associated with the health care program are determined based on an actuarial study and include claims that have been incurred but not reported.

The changes in the self-insurance medical reserve for the years ended September 30, 2019 and 2018 are as follows:

	2019	2018
Beginning balance	**$ 8,139**	$ 9,214
Contributions	**32,116**	29,561
Incurred claims	**(29,045)**	(30,636)
Ending balance	**$ 11,210**	$ 8,139

Customer benefit stabilization – The pricing policy adopted by the Board includes a demand side management surcharge. The costs approved for recovery through the surcharge included programs for the electrification, direct load control, demand side management, residential low-income efficiency programs, and customer utility optimization education programs.

3. Asset Retirement Obligations

Scherer

As part of JEA's ownership of Scherer, it has a proportionate ownership interest in associated common facilities (Common Facilities) of 5.91% (23.64% divided by 4, as there are 4 units in total). There is no majority owner of the Common Facilities. Georgia Power is the nongovernmental minority owner that has operational responsibility of the Common Facilities and, as such, is responsible for calculating any associated asset retirement obligations (AROs). The AROs at Scherer are primarily related to the ash pond.

In accordance with GASB 83, JEA's minority share of the AROs is reported using the measurement produced by Georgia Power, who is registered with the Securities and Exchange Commission and is subject to accounting rules set by the Financial Accounting Standards Board.

At September 30, 2019, the total amount of the AROs at Scherer are $546,227, with JEA's minority share being $32,282. Of the total liability, $837 is recorded in current portion of asset retirement obligations and $31,445 in asset retirement obligations in noncurrent liabilities on the statement of net position. These amounts are offset by $32,282, which is recorded in the separate line item, unrealized asset retirement obligation, in deferred outflows of resources.

There are no legally required funding or assurance provisions associated with JEA's minority share of the AROs and JEA has not restricted any of its assets for payment of this liability.

St. Johns River Power Park

JEA and FPL entered into an Agreement for Joint Ownership, Construction and Operation of SJRPP Coal Units #1 and #2 (JOA) dated as of April 2, 1982. JEA owns 80% and FPL owns 20% of SJRPP. A Purchased Power Agreement (PPA) in the JOA assigned 37.5% of JEA's 80% generation to FPL, which effectively provided 50% of the generation to both owners of SJRPP. The JOA ends on April 2, 2022. JEA and FPL reached an agreement to close SJRPP, including early termination of the PPA. On May 16, 2017, JEA's board of directors approved the Asset Transfer and Contract Termination Agreement, which outlined the terms of the retirement, decommissioning, and dismantling of the plant. The week following, FPL approved the contract and filed a petition with the Florida Public Service Commission (FPSC) for approval to shut down SJRPP. The final order was approved by FPSC in October 2017.

Shutdown occurred on January 5, 2018. On that date, FPL paid JEA $90,400, made up of FPL's cash reserves at SJRPP and a shutdown cash payment of $51,869 as a result of the early termination of the PPA. The payment was recorded as other operating revenue and the expenses related to the shutdown were charged to maintenance and other operating expenses on the statement of revenues, expenses, and changes in net position. In addition, on that date, FPL paid JEA the FPL Debt Service Reserves, which JEA then paid to an escrow account to consummate the bond defeasance of $128,280 of Issue Two debt. On January 5, 2018, JEA defeased all of the SJRPP System Revenue Issue Two debt and, on March 21, 2018, JEA satisfied and discharged the First Power Park Resolution.

3. Asset Retirement Obligations (continued)

As part of the agreement, JEA assumed all payment obligations and other liabilities related to separation benefits for the qualifying SJRPP employees and any amounts required to be deposited into the SJRPP Pension Fund. JEA paid a total of $8,974 in separation benefits for SJRPP employees in fiscal year 2018.

FPL conveyed their 20% interest in SJRPP's fuel inventory to JEA. The fuel inventory received, totaling $4,595, was recorded at fair value. The remaining coal at SJRPP was transferred and consumed at JEA Northside Units 1 and 2. These transactions were recorded at the book value of the coal as the coal was transferred. Based on a physical inventory, the book balance of coal inventory at September 30, 2018 was written down by $11,484 to reflect the remaining coal at SJRPP of $1,015. As of September 30, 2019, all of the SJRPP coal has been consumed.

FPL received a credit for their estimated share of the material and supplies inventory balance at shutdown, pending sale of the inventory. After the sales period passed, FPL paid a shutdown payment adjustment for their share of 20% of the loss on the remaining materials and supplies inventory. JEA is in the process of liquidating the material and supplies inventory. The remaining materials and supplies was written down to fair value in fiscal year 2018 with the recording of an adjustment of $22,444. The value remaining is $106 and $665 at September 30, 2019 and 2018, respectively.

As part of the agreement, the parties agreed that all operation of SJRPP as a generating facility would cease at shutdown. As such, the majority of the plant assets were dismantled. Because of the shutdown of SJRPP and in accordance with GASB 42, *Accounting and Financial Reporting for Impairment of Capital Assets*, an impairment loss of $451,037 was recorded, as a special item, on the un-depreciated book value of the assets that are being dismantled in fiscal year 2018. In conjunction with the recording of the impairment loss related to SJRPP decommissioning, it was determined that there were certain items included in the regulatory asset balance that were no longer going to be recovered through the ratemaking process, primarily those costs deferred related to debt issues that were defeased. As a result, an additional adjustment of $45,099 to regulatory balances was included in the statement of revenues, expenses and changes in net position in the current period, as a special item in fiscal year 2018. The remaining regulatory balance will be amortized over the life of the remaining debt outstanding related to Issue Three debt. See note 2, Regulatory Deferrals, for additional information related to SJRPP's regulatory deferrals.

FPL conveyed their 20% undivided ownership of plant in service assets to JEA. The retained plant in service assets were recorded at fair value. In addition, FPL will convey their 20% undivided ownership interest in the SJRPP site to JEA upon completion of dismantlement and environmental remediation. Under a service management agreement, FPL will pay 20% of the dismantlement and remediation costs incurred. Dismantlement and remediation is expected to be complete by July 2020. Monitoring of the site will continue for thirty years subsequent to the completion date. JEA's share of the estimated cost for dismantlement and remediation is approximately $42,400. The remaining liability, $18,047, is recorded in current portion of asset retirement obligations and is offset by the separate line item, unrealized asset retirement obligation, in the statement of net position. Currently, JEA does not possess sufficient information to reasonably estimate the amounts of additional liabilities, if any, on the site until completion of future environmental studies. In addition, conditions that are currently unknown could result in additional exposure, the amount and materiality of which cannot presently be reasonably estimated. Based upon information currently available, however, JEA believes its ARO accurately reflects the estimated cost of remedial actions currently required.

(Dollars in Thousands)

4. Restricted Assets

Restricted assets were held in the following funds at September 30, 2019 and 2018:

	September 30, 2019				
	Electric	SJRPP	Water and Sewer	DES	Total
Renewal and Replacement Fund	**$ 83,017**	**$ 46,955**	**$ 48,803**	**$ 4,398**	**$ 183,173**
Sinking Fund	**153,650**	**19,635**	**80,775**	**2,356**	**256,416**
Debt Service Reserve Fund	**65,433**	**10,984**	**63,441**	**–**	**139,858**
Revenue Fund	**–**	**28,079**	**–**	**–**	**28,079**
Adjustment to fair value of investments	**4,388**	**107**	**4,225**	**–**	**8,720**
Environmental Fund	**–**	**–**	**1,891**	**–**	**1,891**
Construction Fund	**–**	**–**	**28,968**	**–**	**28,968**
Total	**$ 306,488**	**$ 105,760**	**$ 228,103**	**$ 6,754**	**$ 647,105**

	September 30, 2018				
	Electric	SJRPP	Water and Sewer	DES	Total
Renewal and Replacement Fund	$ 189,929	$ 52,610	$ 141,423	$ 1,078	$ 385,040
Sinking Fund	167,483	7,446	81,242	2,340	258,511
Debt Service Reserve Fund	65,433	11,354	102,850	–	179,637
Revenue Fund	–	26,014	–	–	26,014
Adjustment to fair value of investments	(3,302)	66	(1,347)	–	(4,583)
Environmental Fund	–	–	1,159	–	1,159
Construction Fund	203	–	284	–	487
Total	$ 419,746	$ 97,490	$ 325,611	$ 3,418	$ 846,265

The Electric System, SJRPP System, Bulk Power Supply, Water and Sewer System, and DES are permitted to invest restricted funds in specified types of investments in accordance with their bond resolutions and the investment policy.

(Dollars in Thousands)

4. Restricted Assets (continued)

The requirements of the respective bond resolutions for contributions to the respective systems' renewal and replacement funds are as follows:

Electric System:	An amount equal to the greater of 10% of the prior year defined net revenues or 5% of the prior year defined gross revenues.
SJRPP System:	An amount equal to 12.5% of aggregate debt service, as defined, on bonds issued under the First SJRPP Bond Resolution. An amount equal to 12.5% of aggregate debt service, as defined, on bonds issued under the Second SJRPP Bond Resolution. However, no such deposit is required under the Second SJRPP Bond Resolution as long as the First SJRPP Bond Resolution has not been discharged. On January 5, 2018, JEA defeased all the SJRPP System Revenue Issue Two bonds in their entirety and on March 21, 2018, JEA satisfied and discharged the First Power Park Resolution; therefore, the deposits required under the Second SJRPP Bond Resolution began in fiscal year 2018.
Bulk Power Supply System:	An amount equal to 12.5% of aggregate debt service, as defined.
Water and Sewer System:	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.
DES:	An amount equal to the greater of 10% of the prior year defined annual net revenues or 5% of the prior year defined revenues.

5. Cash and Investments

JEA maintains cash and investment pools that are utilized by all funds except for the bond funds. Included in the JEA cash balances are amounts on deposit with JEA's commercial bank, as well as amounts held in various money market funds as authorized in the JEA Investment Policy. The commercial bank balances are covered by federal depository insurance or collateralized subject to the Florida Security for Public Deposits Act of Chapter 280, Florida Statutes. Amounts subject to Chapter 280, Florida Statutes, are collateralized by securities deposited by JEA's commercial bank under certain pledging formulas with the State Treasurer or other qualified custodians.

JEA follows GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*, which requires the adjustments of the carrying value of investments to fair value to be presented as a component of investment income. Investments are presented at fair value or cost, which is further explained in note 14, Fair Value Measurements.

(Dollars in Thousands)

5. Cash and Investments (continued)

At September 30, 2019 and 2018, the fair value of all securities, regardless of statement of net position classification as cash equivalent or investment, was as follows:

	2019	2018
Securities:		
U.S. Treasury and government agency securities	**$ 184,525**	$ 462,897
State and local government securities	**183,116**	223,845
Local government investment pool	**188,130**	194,786
Commercial paper	**44,266**	133,074
Money market mutual funds	**126,452**	23,208
Total securities, at fair value	**$ 726,489**	$ 1,037,810

These securities are held in the following accounts:

	2019	2018
Current assets:		
Cash and cash equivalents	**$ 414,438**	$ 441,206
Investments	**2,399**	85,310
Restricted assets:		
Cash and cash equivalents	**265,784**	114,576
Investments	**380,250**	731,627
Total cash and investments	**1,062,871**	1,372,719
Plus: interest due on securities	**1,838**	2,878
Less: cash on deposit	**(338,220)**	(337,787)
Total securities, at fair value	**$ 726,489**	$ 1,037,810

JEA is authorized to invest in securities as described in its investment policy and in each bond resolution. As of September 30, 2019, JEA's investments in securities and their maturities are categorized below in accordance with GASB Statement No. 40, *Deposit and Investment Risk Disclosures – an amendment of GASB Statement No. 3*. It is assumed that callable investments will not be called. Puttable securities are presented as investments with a maturity of less than one year.

(Dollars in Thousands)

5. Cash and Investments (continued)

The maturity distribution of the investments held at September 30, 2019 is listed below.

Type of Investments	Less than One Year	One to Five Years	Five to Ten Years	Ten to Twenty Years	Total
U.S. Treasury and government agency securities	$ 30,085	$ 140,128	$ 5,144	$ 9,168	$ 184,525
State and local government securities	44,301	44,897	26,489	67,429	183,116
Local government investment pools	188,130	–	–	–	188,130
Commercial paper	44,266	–	–	–	44,266
Money market mutual funds	126,452	–	–	–	126,452
Total securities, at fair value	$ 433,234	$ 185,025	$ 31,633	$ 76,597	$ 726,489

Interest Rate Risk – As a means of limiting its exposure to fair value losses arising from rising interest rates, JEA's investment policy requires the investment portfolio to be structured in such a manner as to provide sufficient liquidity to pay obligations as they come due. To the extent possible, investment maturities are matched with known cash needs and anticipated cash flow requirements. Additionally, maturity limitations for investments related to the issuance of debt are outlined in the bond resolution relating to those bond issues. JEA's investment policy also limits investments in commercial paper to maturities of less than nine months.

Credit Risk – JEA's investment policy is consistent with the requirements for investments of state and local governments contained in the Florida Statutes and its objectives are to seek reasonable income, preserve capital, and avoid speculative investments. Consistent with JEA's investment policy and bond resolutions: (1) the U.S. government agency securities held in the portfolio are issued or guaranteed by agencies created pursuant to an Act of Congress as an agency or instrumentality of the United States of America; (2) the state and local government securities are rated by two nationally recognized rating agencies and are rated at least AA- by Standard & Poor's, Aa3 by Moody's Investors Services, or AA- by Fitch Ratings; and (3) the money market mutual funds are rated AAA by Standard & Poor's or Aaa by Moody's Investors Services. JEA's investment policy limits investments in commercial paper to the highest whole rating category issued by at least two nationally recognized rating agencies, and the issuer must be a Fortune 500 company, a Fortune Global 500 company with significant operations in the U.S., or the governments of Canada or Canadian provinces and the ratings outlook must be positive or stable at the time of the investment. As of September 30, 2019, JEA's investments in commercial paper are rated at least A-1 by Standard & Poor's and P-1 by Moody's Investors Services. In addition, JEA's investment policy limits the commercial paper investment in any one issuer to $12,500. Additionally, JEA's investment policy limits investments in commercial paper to 25% of the total cash and investment portfolio regardless of statement of net position classification as cash equivalent or investment. As of September 30, 2019, JEA had 6.1% of its investments in commercial paper.

5. Cash and Investments (continued)

Custodial Credit Risk – For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, JEA will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. All of JEA's investments are held by JEA or by an agent in JEA's name.

Concentration of Credit Risk – As of September 30, 2019, investments in any one issuer representing 5% or more of JEA's investments included $148,467 (20.4%) invested in issues of the Federal Home Loan Bank. JEA's investment policy limits the maximum holding of any one U.S. government agency issuer to 35% of total cash and investments regardless of statement of net position classification as cash equivalent or investment. Other than investments in U.S. Treasury securities or U.S. Treasury money market funds, JEA's investment policy limits the percentage of the total cash and investment portfolio (regardless of statement of net position classification as cash equivalent or investment) that may be held in various security types. As of September 30, 2019, investments in all security types were within the allowable policy limits.

(Dollars in Thousands)

6. Capital Assets

Capital asset activity for the year ended September 30, 2019 is as follows:

	Balance September 30, 2018	Additions	Retirements	Transfers/ Adjustments	Balance September 30, 2019
Electric Enterprise Fund:					
Generation assets	$ 3,699,914	$ –	$ (2,114)	$ 100,217	$ 3,798,017
Transmission assets	593,858	–	(3,853)	3,906	593,911
Distribution assets	2,000,076	–	(16,326)	66,556	2,050,306
Other assets	448,877	–	(5,558)	29,079	472,398
Total capital assets	6,742,725	–	(27,851)	199,758	6,914,632
Less: accumulated depreciation and amortization	(4,385,170)	(208,287)	27,851	–	(4,565,606)
Land	130,286	–	(3)	834	131,117
Construction work-in-process	174,527	276,978	–	(247,604)	203,901
Net capital assets	2,662,368	68,691	(3)	(47,012)	2,684,044
Water and Sewer Fund:					
Pumping assets	525,648	–	(2,320)	38,547	561,875
Treatment assets	646,269	–	(1,746)	36,778	681,301
Transmission and distribution assets	1,206,880	–	(1,226)	48,374	1,254,028
Collection assets	1,508,598	–	(52)	23,737	1,532,283
Reclaimed water assets	137,534	–	–	1,309	138,843
General and other assets	407,065	–	(3,768)	20,464	423,761
Total capital assets	4,431,994	–	(9,112)	169,209	4,592,091
Less: accumulated depreciation	(2,108,027)	(148,250)	9,111	4,189	(2,242,977)
Land	61,215	–	(11)	89	61,293
Construction work-in-process	297,682	209,331	–	(169,297)	337,716
Net capital assets	2,682,864	61,081	(12)	4,190	2,748,123
District Energy System:					
Chilled water plant assets	56,376	–	(261)	1,035	57,150
Total capital assets	56,376	–	(261)	1,035	57,150
Less: accumulated depreciation	(25,554)	(2,429)	255	–	(27,728)
Land	3,051	–	–	–	3,051
Construction work-in process	1,154	679	–	(1,029)	804
Net capital assets	35,027	(1,750)	(6)	6	33,277
Total	$ 5,380,259	$ 128,022	$ (21)	$ (42,816)	$ 5,465,444

(Dollars in Thousands)

6. Capital Assets (continued)

Capital asset activity for the year ended September 30, 2018 is as follows:

	Balance September 30, 2017	Additions	Retirements	Transfers/ Adjustments	Balance September 30, 2018
Electric Enterprise Fund:					
Generation assets	$ 3,685,363	$ –	$ (5,686)	$ 20,237	$ 3,699,914
Transmission assets	571,810	–	(175)	22,223	593,858
Distribution assets	1,927,058	–	(5,881)	78,899	2,000,076
Other assets	459,240	–	(1,754)	(8,609)	448,877
Total capital assets	6,643,471	–	(13,496)	112,750	6,742,725
Less: accumulated depreciation and amortization	(3,718,060)	(680,606)	13,496	–	(4,385,170)
Land	130,246	–	(197)	237	130,286
Construction work-in-process	106,012	183,278	–	(114,763)	174,527
Net capital assets	3,161,669	(497,328)	(197)	(1,776)	2,662,368
Water and Sewer Fund:					
Pumping assets	509,490	–	(9,533)	25,691	525,648
Treatment assets	627,165	–	(7,037)	26,141	646,269
Transmission and distribution assets	1,182,420	–	(312)	24,772	1,206,880
Collection assets	1,485,168	–	(427)	23,857	1,508,598
Reclaimed water assets	138,535	–	(730)	(271)	137,534
General and other assets	397,765	–	(1,512)	10,812	407,065
Total capital assets	4,340,543	–	(19,551)	111,002	4,431,994
Less: accumulated depreciation	(1,991,742)	(140,025)	19,551	4,189	(2,108,027)
Land	61,259	–	(11)	(33)	61,215
Construction work-in-process	205,890	202,761	–	(110,969)	297,682
Net capital assets	2,615,950	62,736	(11)	4,189	2,682,864
District Energy System:					
Chilled water plant assets	55,240	–	(940)	2,076	56,376
Total capital assets	55,240	–	(940)	2,076	56,376
Less: accumulated depreciation	(24,091)	(2,403)	940	–	(25,554)
Land	3,051	–	–	–	3,051
Construction work-in process	1,980	1,250	–	(2,076)	1,154
Net capital assets	36,180	(1,153)	–	–	35,027
Total	$ 5,813,799	$ (435,745)	$ (208)	$ 2,413	$ 5,380,259

(Dollars in Thousands)

7. Investment in The Energy Authority

JEA is a member of TEA, a municipal power marketing and risk management joint venture, headquartered in Jacksonville, Florida. TEA currently has eight members, and JEA's ownership interest in TEA is 17.6%. TEA provides wholesale power marketing and resource management services to members (including JEA) and nonmembers and allocates transaction savings and operating expenses pursuant to a settlement agreement. TEA also assists members (including JEA) and nonmembers with natural gas procurement and related gas hedging activities. JEA's earnings from TEA were $2,412 in fiscal year 2019 and $4,074 in 2018 for all power marketing activities. JEA's distributions from TEA were $2,443 in fiscal year 2019 and $3,513 in 2018. The investment in TEA was $6,999 at September 30, 2019 and $7,030 at September 30, 2018 and is included in noncurrent assets on the accompanying statement of net position.

The following is a summary of the unaudited financial information of TEA for the nine months ended September 30, 2019 and 2018. TEA issues separate audited financial statements on a calendar-year basis.

	Unaudited	
	2019	**2018**
Condensed statement of net position:		
Current assets	**$ 167,808**	$ 165,904
Noncurrent assets	**23,666**	21,510
Total assets	**$ 191,474**	$ 187,414
Current liabilities	**$ 151,620**	$ 146,768
Noncurrent liabilities	**50**	15
Members' capital	**39,804**	40,631
Total liabilities and members' capital	**$ 191,474**	$ 187,414
Condensed statement of operations:		
Operating revenues	**$ 1,279,819**	$ 1,334,738
Operating expenses	**1,217,046**	1,252,868
Operating income	**$ 62,773**	$ 81,870
Net income	**$ 61,568**	$ 81,975

As of September 30, 2019, JEA is obligated to guaranty, directly or indirectly, TEA's electric trading activities in an amount up to $28,929 and TEA's natural gas procurement and trading activities up to $34,600, in either case, plus attorney's fees that any party claiming and prevailing under the guaranty might incur and be entitled to recover under its contract with TEA. JEA has approved up to $60,000 (plus attorney fees) for TEA's natural gas procurement and trading activities.

7. Investment in The Energy Authority (continued)

Generally, JEA's guaranty obligations for electric trading would arise if TEA did not make the contractually required payment for energy, capacity, or transmission that was delivered or made available, or if TEA failed to deliver or provide energy, capacity, or transmission as required under a contract. Generally, JEA's guaranty obligations for natural gas procurement and trading would arise if TEA did not make the contractually required payment for natural gas or transportation that was delivered or purchased or if TEA failed to deliver natural gas or transportation as required under a contract.

Upon JEA's making any payments under its electric guaranty, it has certain contribution rights with the other members of TEA in order that payments made under the TEA member guaranties would be equalized ratably, based upon each member's equity ownership interest in TEA. Upon JEA's making any payments under its natural gas guaranty, it has certain contribution rights with the other members of TEA in order that payments under the TEA member guaranties would be equalized ratably in proportion to their respective amounts of guaranties, as adjusted by the actual natural gas member volumes and prices for the calendar year. After such contributions have been effected, JEA would only have recourse against TEA to recover amounts paid under the guaranty.

The term of these guaranties is generally indefinite, but JEA has the ability to terminate its guaranty obligations by causing to be provided advance notice to the beneficiaries thereof. Such termination of its guaranty obligations only applies to TEA transactions not yet entered into at the time the termination takes effect. Such termination would be because of JEA's withdrawal from membership in TEA, or such termination could cause JEA's membership in TEA to be terminated.

Under a separate agreement, TEA contracted with Southern Power Company ("Southern"), on JEA's behalf, for the purchase and sale of capacity and energy from Southern's Wansley plant located in Heard County, GA, covering the term from January 1, 2018 to December 31, 2019. In turn, JEA has guaranteed the payment obligations in the agreement up to $9,000 as well as all reasonable fees and expenses of Southern's counsel in any way relating to the enforcement of Southern's rights under the agreement.

8. Long-Term Debt

The Electric System, Bulk Power Supply System, SJRPP System, Water and Sewer System, and DES revenue bonds (JEA Revenue Bonds) are each governed by one or more bond resolutions. The Electric System bonds are governed by both a senior and a subordinated bond resolution; the Bulk Power Supply System bonds are governed by a single bond resolution; the Water and Sewer System bonds are governed by both a senior and a subordinated bond resolution; the SJRPP System bonds are governed by the Second Power Park Resolutions; and the DES bonds are governed by a single bond resolution. In accordance with the bond resolutions of each system, principal and interest on the bonds are payable from and secured by a pledge of the net revenues of the respective system. In general, the bond resolutions require JEA to make monthly deposits into the separate debt service sinking funds for each System in an amount equal to approximately one-twelfth of the aggregate amount of principal and interest due and payable on the bonds within the bond year. Interest on the fixed rate bonds is payable semiannually on April 1 and October 1, and principal is payable on October 1.

The various bond resolutions provide for certain other covenants, the most significant of which (1) requires JEA to establish rates for each system such that net revenues with respect to that system are sufficient to exceed (by a certain percentage) the debt service for that system during the fiscal year and any additional amount required to make all reserve or other payments required to be made in such fiscal year by the resolution of that system and (2) restricts JEA from issuing additional parity bonds unless certain conditions are met.

(Dollars in Thousands)

8. Long-Term Debt (continued)

Below is the schedule of outstanding indebtedness for the fiscal years 2019 and 2018.

Long-Term Debt	Interest Rates[1]	Payment Dates	September 30 2019	September 30 2018
Electric System Senior Revenue Bonds:				
Series Three 2004A	5.000%	2039	**$ 5**	$ 5
Series Three 2005B	4.750%	2033	**100**	100
Series Three 2008A[2]	Variable	2027-2036	**51,680**	51,680
Series Three 2008B-1[3]	Variable	2019-2040	**59,620**	60,020
Series Three 2008B-2[2]	Variable	2025-2040	**41,900**	41,900
Series Three 2008B-3[2]	Variable	2024-2036	**37,000**	37,000
Series Three 2008B-4[3]	Variable	2019-2036	**49,010**	49,410
Series Three 2008C-1[2]	Variable	2024-2034	**44,145**	44,145
Series Three 2008C-2[2]	Variable	2024-2034	**43,900**	43,900
Series Three 2008C-3[2]	Variable	2030-2038	**25,000**	25,000
Series Three 2008D-1[3]	Variable	2019-2036	**106,275**	108,900
Series Three 2009D[4]	6.056%	2033-2044	**45,955**	45,955
Series Three 2010A	4.000%	2019	**5,070**	10,065
Series Three 2010C	4.500%	2031	**1,290**	1,950
Series Three 2010D	4.250-5.000%	2020-2038	**1,205**	7,210
Series Three 2010E[4]	5.350-5.482%	2028-2040	**34,255**	34,255
Series Three 2012A	4.000-4.500%	2027-2033	**16,210**	16,995
Series Three 2012B	2.000-5.000%	2019-2039	**85,615**	85,615
Series Three 2013A	3.000-5.000%	2019-2026	**49,050**	74,865
Series Three 2013B	3.000-5.000%	2026-2038	**7,500**	7,500
Series Three 2013C	4.600-5.000%	2019-2030	**10,555**	19,335
Series Three 2014A	3.500-5.000%	2019-2034	**9,350**	12,870
Series Three 2015A	3.000-5.000%	2019-2041	**59,005**	69,975
Series Three 2015B	3.375-5.000%	2019-2031	**17,225**	23,900
Series Three 2017A	5.000%	2019	**18,670**	18,670
Series Three 2017B	3.375 - 5.000%	2026-2039	**198,095**	198,095
Total Electric System Senior Revenue Bonds			**1,017,685**	1,089,315

(Dollars in Thousands)

8. Long-Term Debt (continued)

Long-Term Debt	Interest Rates[1]	Payment Dates	September 30 2019	2018
Electric System Subordinated Revenue Bonds:				
2000 Series A[2]	Variable	2021-2035	**$ 30,965**	$ 30,965
2000 Series F-1[2]	Variable	2026-2030	**37,200**	37,200
2000 Series F-2[2]	Variable	2026-2030	**24,800**	24,800
2008 Series D[2]	Variable	2024-2038	**39,455**	39,455
2009 Series D	N/A	N/A	**–**	11,660
2009 Series E	N/A	N/A	**–**	295
2009 Series F[4]	4.900-6.406%	2019-2034	**62,155**	63,670
2009 Series G	4.000-5.000%	2019	**14,665**	16,090
2010 Series B	4.000-5.000%	2019-2020	**3,115**	4,605
2010 Series D[4]	4.150-5.582%	2019-2027	**42,050**	44,125
2012 Series A	3.250-5.000%	2019-2033	**55,515**	62,440
2012 Series B	3.250-5.000%	2019-2037	**50,030**	52,995
2013 Series A	3.000-5.000%	2019-2030	**37,330**	44,585
2013 Series B	3.000-5.000%	2019-2026	**17,165**	21,275
2013 Series C	1.375-5.000%	2019-2038	**74,750**	78,330
2013 Series D	4.375-5.250%	2019-2035	**50,115**	88,660
2014 Series A	4.000-5.000%	2019-2039	**94,265**	121,320
2017 Series A	3.000%	2019	**1,290**	31,790
2017 Series B	3.375-5.000%	2019-2034	**171,700**	185,745
Total Electric System Subordinated Revenue Bonds			**806,565**	960,005
Bulk Power Supply System Revenue Bonds:				
Series 2010A[4]	4.800-5.920%	2019-2030	**$ 34,355**	$ 37,400
Series 2014A	2.000-4.125%	2019-2038	**60,655**	63,320
Total Bulk Power System Revenue Bonds			**95,010**	100,720
SJRPP System Revenue Bonds:				
Issue Three, Series One	4.500%	2037	**100**	100
Issue Three, Series Two	5.000%	2034-2037	**29,370**	29,370
Issue Three, Series Four[4]	4.700-5.450%	2019-2028	**20,690**	22,410
Issue Three, Series Six	2.375-5.000%	2019-2037	**91,330**	91,330
Issue Three, Series Seven	2.000-5.000%	2019-2033	**79,500**	79,500
Issue Three, Series Eight	2.000-5.000%	2019-2039	**57,895**	57,895
Total SJRPP System Revenue Bonds			**278,885**	280,605

(Dollars in Thousands)

8. Long-Term Debt (continued)

Long-Term Debt	Interest Rates[1]	Payment Dates	September 30 2019	2018
Water and Sewer System Senior Revenue Bonds:				
2006 Series B[5]	Variable	2019-2022	**$ 24,850**	$ 30,370
2008 Series A-2[2]	Variable	2028-2042	**51,820**	51,820
2008 Series B[2]	Variable	2023-2041	**85,290**	85,290
2009 Series B	3.750%	2019	**8,915**	18,295
2010 Series A[4]	6.210-6.310%	2026-2044	**83,115**	83,115
2010 Series B	5.200-5.700%	2019-2025	**12,110**	13,840
2010 Series C	N/A	N/A	**–**	3,000
2010 Series D	4.000-5.000%	2019-2039	**24,125**	42,525
2010 Series E	4.000-5.000%	2023-2039	**8,570**	11,865
2010 Series F[4]	3.900-5.887%	2019-2040	**42,095**	44,275
2012 Series A	3.000-5.000%	2019-2041	**153,175**	162,430
2012 Series B	2.250-5.000%	2019-2037	**73,270**	76,380
2013 Series A	4.500-5.000%	2019-2027	**17,575**	63,660
2014 Series A	2.000-5.000%	2019-2040	**212,960**	217,790
2017 Series A	3.125-5.000%	2022-2041	**360,775**	378,220
Total Water and Sewer System Senior Revenue Bonds			**1,158,645**	1,282,875
Water and Sewer System Subordinated Revenue Bonds:				
Subordinated 2008 Series A-1[2]	Variable	2019-2038	**48,850**	50,950
Subordinated 2008 Series A-2[2]	Variable	2030-2038	**25,600**	25,600
Subordinated 2008 Series B-1[2]	Variable	2030-2036	**30,885**	30,885
Subordinated 2010 Series A	5.000%	2019	**2,790**	8,275
Subordinated 2010 Series B	4.000-5.000%	2023-2025	**2,060**	3,255
Subordinated 2012 Series A	N/A	N/A	**–**	1,440
Subordinated 2012 Series B	3.250-5.000%	2030-2043	**29,685**	29,685
Subordinated 2013 Series A	2.125-5.000%	2019-2029	**25,210**	37,435
Subordinated 2017 Series A	2.750-5.000%	2021-2034	**58,940**	58,940
Total Water and Sewer System Subordinated Revenue Bonds			**224,020**	246,465

(Dollars in Thousands)

8. Long-Term Debt (continued)

Long-Term Debt	Interest Rates[1]	Payment Dates	September 30 2019	September 30 2018
Water and Sewer System Other Subordinated Debt:				
Revolving Credit Agreement[6]	Variable	2021	**$ 5,000**	$ 3,000
Total Water and Sewer System Other Subordinated Debt			**5,000**	3,000
District Energy System:				
2013 Series A	2.065-4.538%	2019-2034	**34,825**	36,485
Total District Energy System			**34,825**	36,485
Total Debt Principal Outstanding			**3,620,635**	3,999,470
Less: Debt Due Within One Year			**(192,555)**	(185,790)
Total Long-Term Debt			**$ 3,428,080**	$ 3,813,680

(1) Interest rates apply only to bonds outstanding at September 30, 2019. Interest on the outstanding variable rate debt is based on either the daily mode, weekly mode, or the flexible mode, which resets in time increments ranging from 1 to 270 days. In addition, JEA has executed fixed-payer weekly mode interest rate swaps to effectively fix a portion of its net payments relative to certain variable rate bonds. The terms of the interest rate swaps are approximately equal to that of the fixed-payer bonds. See the Debt Management Strategy section of this note for more information related to the interest rate swap agreements outstanding at September 30, 2019 and 2018.

(2) Variable rate demand obligations – interest rates ranged from 1.40% to 1.79% at September 30, 2019.

(3) Variable rate direct purchased bonds indexed to SIFMA – interest rates were 2.08% at September 30, 2019.

(4) Federally Taxable – Issuer Subsidy – Build America Bonds where JEA expects to receive a cash subsidy payment from the United States Department of the Treasury for an amount up to 35% of the related interest.

(5) Variable rate bonds indexed to the Consumer Price Index (CPI bonds) – interest rates ranged from 2.51% to 2.55% at September 30, 2019.

(6) Revolving Credit Agreement – interest rate was 3.19% at September 30, 2019.

(Dollars in Thousands)

8. Long-Term Debt (continued)

Long-term debt activity (excluding the revolving credit agreement) for the year ended September 30, 2019 was as follows:

System	Debt Payable September 30, 2018	Par Amount of Debt Issued	Par Amount of Debt Refunded or Defeased	Scheduled Debt Principal Payments	Debt Payable September 30, 2019	Current Portion of Debt Payable September 30, 2019
Electric:						
Revenue	$ 1,830,990	$ –	$ (100,090)	$ (121,555)	$ 1,609,345	$ 112,635
Direct purchase	218,330	–	–	(3,425)	214,905	3,595
Total electric	2,049,320	–	(100,090)	(124,980)	1,824,250	116,230
Bulk Power Supply	100,720	–	–	(5,710)	95,010	6,150
SJRPP	280,605	–	–	(1,720)	278,885	13,780
Water and Sewer	1,529,340	–	(94,955)	(51,720)	1,382,665	54,705
DES	36,485	–	–	(1,660)	34,825	1,690
Total	$ 3,996,470	$ –	$ (195,045)	$ (185,790)	$ 3,615,635	$ 192,555

Long-term debt activity (excluding the revolving credit agreement) for the year ended September 30, 2018 was as follows:

System	Debt Payable September 30, 2017	Par Amount of Debt Issued	Par Amount of Debt Refunded or Defeased	Scheduled Debt Principal Payments	Debt Payable September 30, 2018	Current Portion of Debt Payable September 30, 2018
Electric:						
Revenue	$ 1,978,860	$ 383,840	$ (405,105)	$ (126,605)	$ 1,830,990	$ 121,555
Direct purchase	221,625	–	–	(3,295)	218,330	3,425
Total electric	2,200,485	383,840	(405,105)	(129,900)	2,049,320	124,980
Bulk Power Supply	105,925	–	–	(5,205)	100,720	5,710
SJRPP	450,215	–	(128,280)	(41,330)	280,605	1,720
Water and Sewer	1,603,505	437,160	(460,305)	(51,020)	1,529,340	51,720
DES	38,125	–	–	(1,640)	36,485	1,660
Total	$ 4,398,255	$ 821,000	$ (993,690)	$ (229,095)	$ 3,996,470	$ 185,790

(Dollars in Thousands)

8. Long-Term Debt (continued)

The debt service to maturity on the outstanding debt (excluding the revolving credit agreement) as of September 30, 2019 is summarized below, representing debt service accrued from October 1 through September 30 of the corresponding fiscal year, except for fiscal year 2019, which excludes payments made during the fiscal year.

Fiscal Year Ending	Electric System Revenue		Electric System Direct Purchase		Bulk Power Supply System	
September 30	Principal	Interest(1)	Principal	Interest(1)	Principal	Interest(1)
2019	$ 112,635	$ 28,978	$ 3,595	$ 312	$ 6,150	$ 1,980
2020	54,285	57,650	6,505	23,333	6,975	3,716
2021	50,545	54,944	8,595	22,995	7,080	3,498
2022	46,570	52,536	8,925	22,448	7,270	3,274
2023	8,830	50,315	7,950	21,910	7,485	3,003
2024–2028	342,455	230,769	63,300	94,522	22,515	11,565
2029–2033	467,715	153,665	69,910	50,733	20,260	5,681
2034–2038	440,690	64,927	40,805	17,429	17,275	2,271
2039–2043	80,925	8,747	5,320	346	–	–
2044–2048	4,695	284	–	–	–	–
Total	$ 1,609,345	$ 702,815	$ 214,905	$ 254,028	$ 95,010	$ 34,988

Fiscal Year Ending	SJRPP		Water and Sewer System		District Energy System		Total Debt
September 30	Principal	Interest(1)	Principal	Interest(1)	Principal	Interest	Service
2019	$ 13,780	$ 5,564	$ 54,705	$ 26,069	$ 1,690	$ 665	$ 256,123
2020	13,340	10,444	19,870	52,787	1,725	1,296	251,926
2021	14,175	9,894	22,250	52,369	1,770	1,254	249,369
2022	15,285	9,310	37,765	51,690	1,815	1,206	258,094
2023	15,865	8,693	59,310	50,210	1,870	1,152	236,593
2024–2028	87,755	33,978	291,820	211,579	10,370	4,738	1,405,366
2029–2033	68,100	18,403	302,410	145,382	12,695	2,412	1,317,366
2034–2038	46,730	6,651	367,740	82,687	2,890	131	1,090,226
2039–2043	3,855	154	220,670	19,979	–	–	339,996
2044–2048	–	–	6,125	386	–	–	11,490
Total	$ 278,885	$ 103,091	$ 1,382,665	$ 693,138	$ 34,825	$ 12,854	$ 5,416,549

(1) The interest requirement for the variable rate debt was determined by using the interest rates that were in effect at the financial statement date of September 30, 2019 and reflects gross interest, prior to any 35% cash subsidy payments, on the Federally Taxable – Issuer Subsidy – Build America Bonds.

(Dollars in Thousands)

8. Long-Term Debt (continued)

JEA, at its option, may redeem specific outstanding fixed rate JEA Revenue Bonds prior to maturity, as discussed in the official statements covering their issuance. A summary of the redemption provisions is as follows:

	Electric System	Bulk Power Supply System	SJRPP	Water and Sewer System	District Energy System
Earliest fiscal year for redemption	2020	2020	2020	2020	2023
Redemption price	100%	100%	100%	100%	100%

There was no JEA debt issued during fiscal year 2019.

The JEA Board has authorized the issuance of additional refunding bonds within certain parameters for the Electric System, Bulk Power Supply System, SJRPP, and Water and Sewer System. The following table summarizes the maximum amounts that could be issued:

	Authorization		
System	Senior	Subordinated	Expiration
Electric	$ 629,000	$ 263,000	December 31, 2020
Bulk Power Supply System	60,000	N/A	December 31, 2020
SJRPP Issue Three	250,000	N/A	December 31, 2020
Water and Sewer	313,000	151,000	December 31, 2020

Variable Rate Demand Obligations (VRDOs) – Liquidity Support

For the Electric System and the Water and Sewer System VRDOs appearing in the schedule of outstanding indebtedness, and except for the obligations noted in the following paragraphs, liquidity support is provided in connection with tenders for purchase with various liquidity providers pursuant to standby bond purchase agreements (SBPA) relating to that series of obligation. The purchase price of the obligations tendered or deemed tendered for purchase is payable from the proceeds of the remarketing thereof and moneys drawn under the applicable SBPA. At September 30, 2019, there were no outstanding draws under the SBPA. In the event of the expiration or termination of the SBPA that results in a mandatory tender of the VRDOs and the purchase of the obligations by the bank, then beginning on April 1 or October 1, whichever date is at least six months subsequent to the purchase of the obligations, JEA shall begin to make equal semiannual installments over an approximate five-year period. Commitment fees range from 0.38% to 0.55% with stated termination dates ranging from May 8, 2020 to August 22, 2022, unless otherwise extended.

8. Long-Term Debt (continued)

JEA entered into irrevocable direct-pay letter of credit and reimbursement agreement to support the payment of principal and interest on the Water and Sewer System 2008 Series A-2 VRDOs. The letter of credit agreement constitutes both a credit facility and a liquidity facility. As of September 30, 2019, there were no draws outstanding under the letter of credit agreement. Repayment of any draws outstanding at the expiration date are payable in equal semiannual installments over an approximate five-year period. The commitment fee is 0.42% with a stated expiration date of December 1, 2023, unless otherwise extended.

JEA has entered into continuing covenant agreements for the Variable Rate Electric System Revenue Bonds, Series Three 2008B-1, Series Three 2008B-4, and Series Three 2008D-1 (collectively, the Direct Purchase Bonds). Except as described below, the bank does not have the option to tender the respective Direct Purchase Bonds for purchase for a period specified in the respective continuing covenant agreements, which period would be subject to renewal under certain conditions. Any Direct Purchase Bonds that were not purchased on the scheduled mandatory tender date that occurred, upon the expiration of such period, would be required to be repaid as to principal in equal semiannual installments over a period of approximately five years from the scheduled mandatory tender date. The continuing covenant agreements specify certain events of default that require immediate repayment of outstanding amounts and other events of default that require repayment of outstanding amounts if the event of default continues from 7 days to 180 days. During the years ended September 30, 2019 and 2018, JEA did not default on any terms of the continuing covenant agreements. The current expiration date of the continuing covenant agreements is December 10, 2021, unless otherwise extended. The interest rate is variable and set weekly based upon SIFMA plus 50 basis points.

Revolving Credit Agreement

JEA has a revolving credit agreement with a commercial bank for an unsecured amount of $500,000. The revolving credit agreement may be used with respect to the Electric System, the Bulk Power Supply System, the SJRPP System, the Water and Sewer System, or the DES for operating or capital expenditures. The revolving credit agreement specifies events of default that require immediate repayment of outstanding amounts. During the years ended September 30, 2019 and 2018, JEA did not default on any terms of the revolving credit agreement. During fiscal year 2019, the revolving credit agreement was drawn upon by the Water and Sewer System for $2,000, increasing the outstanding balance to $5,000 as of September 30, 2019, with $495,000 available to be drawn. The revolving credit agreement is scheduled to expire on May 24, 2021.

Debt Management Strategy

JEA has entered into various interest rate swap agreements, executed in conjunction with debt financings for initial terms up to 35 years (unless earlier terminated). JEA utilizes floating to fixed interest rate swaps as part of its debt management strategy. For purposes of this note, the term floating to fixed interest rate swaps refers to swaps in which JEA receives a floating rate and pays a fixed rate.

(Dollars in Thousands)

8. Long-Term Debt (continued)

The fair value of the interest rate swap agreements and related hedging instruments is reported in the long-term debt section in the accompanying statements of net position; however, the notional amounts of the interest rate swaps are not reflected in the accompanying financial statements. JEA follows GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*; therefore, hedge accounting is applied where fair market value changes are recorded in the accompanying statements of net position as either deferred outflow or deferred inflow resources.

The earnings from the debt management strategy interest rate swaps are recorded to interest on debt in the accompanying statements of revenues, expenses, and changes in net position.

JEA entered into all outstanding floating to fixed interest rate swap agreements during prior fiscal years. The terms of the floating to fixed interest rate swap agreements outstanding at September 30, 2019, are as follows:

System	Hedged Bonds	Initial Notional Amount	Notional Amount Outstanding	Fixed Rate of Interest	Effective Date	Termination Date	Variable Rate Index
Electric	Series Three 2008C	**$ 174,000**	**$ 84,800**	3.7%	Sep 2003	Sep 2033	68% of one month LIBOR
Electric	Series Three 2008B	**117,825**	**82,575**	4.4%	Aug 2008	Oct 2039	SIFMA
Electric	Series Three 2008B	**116,425**	**85,200**	3.7%	Sep 2008	Oct 2035	68% of one month LIBOR
Electric	2008 Series D	**40,875**	**39,175**	3.7%	Mar 2009	Oct 2037	68% of one month LIBOR
Electric	Series Three 2008D-1	**98,375**	**62,980**	3.9%	May 2008	Oct 2031	SIFMA
Electric	Series Three 2008A	**100,000**	**51,680**	3.8%	Jan 2008	Oct 2036	SIFMA
Water and Sewer	2006 Series B	**38,730**	**24,850**	4.0-4.1%	Oct 2006	Oct 2019-2022	CPI
Water and Sewer	2008 Series B	**85,290**	**85,290**	3.9%	Mar 2007	Oct 2041	SIFMA
		$ 771,520	**$ 516,550**				

JEA entered into all outstanding floating to fixed interest rate swap agreements during prior fiscal years. The terms of the floating to fixed interest rate swap agreements outstanding at September 30, 2018, are as follows:

System	Hedged Bonds	Initial Notional Amount	Notional Amount Outstanding	Fixed Rate of Interest	Effective Date	Termination Date	Variable Rate Index
Electric	Series Three 2008C	**$ 174,000**	**$ 84,800**	3.7%	Sep 2003	Sep 2033	68% of one month LIBOR
Electric	Series Three 2008B	**117,825**	**82,575**	4.4%	Aug 2008	Oct 2039	SIFMA
Electric	Series Three 2008B	**116,425**	**85,600**	3.7%	Sep 2008	Oct 2035	68% of one month LIBOR
Electric	2008 Series D	**40,875**	**39,175**	3.7%	Mar 2009	Oct 2037	68% of one month LIBOR
Electric	Series Three 2008D-1	**98,375**	**62,980**	3.9%	May 2008	Oct 2031	SIFMA
Electric	Series Three 2008A	**100,000**	**51,680**	3.8%	Jan 2008	Oct 2036	SIFMA
Water and Sewer	2006 Series B	**38,730**	**30,370**	4.0-4.1%	Oct 2006	Oct 2018-2022	CPI
Water and Sewer	2008 Series B	**85,290**	**85,290**	3.9%	Mar 2007	Oct 2041	SIFMA
		$ 771,520	**$ 522,470**				

(Dollars in Thousands)

8. Long-Term Debt (continued)

The following table includes fiscal year 2019 and 2018 summary information for JEA's effective cash flow hedges related to the outstanding floating to fixed interest rate swap agreements.

	Changes in Fair Value		Fair Value at September 30, 2019		
System	**Classification**	**Amount**	**Classification**	**Amount[(1)]**	**Notional**
Electric	Deferred outflows	$ 48,518	Fair value of debt management strategy instruments	$ (118,621)	$ 406,410
Water and Sewer	Deferred outflows	15,013	Fair value of debt management strategy instruments	(31,266)	110,140
Total		$ 63,531		$ (149,887)	$ 516,550

	Changes in Fair Value		Fair Value at September 30, 2018		
System	**Classification**	**Amount**	**Classification**	**Amount[(1)]**	**Notional**
Electric	Deferred outflows	$ (31,247)	Fair value of debt management strategy instruments	$ (70,103)	$ 406,810
Water and Sewer	Deferred outflows	(7,666)	Fair value of debt management strategy instruments	(16,253)	115,660
Total		$ (38,913)		$ (86,356)	$ 522,470

(1) Fair value amounts were calculated using market rates and standard cash flow present valuing techniques.

For fiscal years ended September 30, 2019 and 2018, the weighted-average rates of interest for each index type of floating to fixed interest rate swap agreement and the total net swap earnings were as follows:

	2019	2018
68% of LIBOR Index:		
Notional amount outstanding	$ 209,175	$ 209,575
Variable rate received (weighted average)	1.62%	1.17%
Fixed rate paid (weighted average)	3.69%	3.69%
SIFMA Index (formerly BMA Index):		
Notional amount outstanding	$ 282,525	$ 282,525
Variable rate received (weighted average)	1.56%	1.27%
Fixed rate paid (weighted average)	4.02%	4.02%
CPI Index:		
Notional amount outstanding	$ 24,850	$ 30,370
Variable rate received (weighted average)	3.23%	2.87%
Fixed rate paid (weighted average)	4.04%	4.02%
Net debt management swap loss	$ (11,445)	$ (13,395)

(Dollars in Thousands)

8. Long-Term Debt (continued)

The following two tables summarize the anticipated net cash flows of JEA's outstanding hedged variable rate debt and related floating to fixed interest rate swap agreements at September 30, 2019:

Electric System[1]

Bond Year Ending October 1	Principal	Interest	Net Swap Interest	Total
2019	$ 425	$ 505	$ 839	$ 1,769
2020	3,200	5,669	10,055	18,924
2021	3,275	5,618	9,982	18,875
2022	3,375	5,566	9,908	18,849
2023	5,400	5,512	9,831	20,743
2024–2028	120,815	24,232	43,970	189,017
2029–2033	163,070	13,353	24,633	201,056
2034–2038	97,675	4,887	8,986	111,548
2039–2042	9,175	147	272	9,594
Total	$ 406,410	$ 65,489	$ 118,476	$ 590,375

Water and Sewer System[1]

Bond Year Ending October 1	Principal	Interest	Net Swap Interest	Total
2019	$ 5,740	$ 410	$ 366	$ 6,516
2020	9,195	1,678	2,424	13,297
2021	4,860	1,445	2,285	8,590
2022	5,055	1,322	2,212	8,589
2023	4,035	1,194	2,136	7,365
2024–2028	13,560	5,122	9,160	27,842
2029–2033	7,055	4,615	8,253	19,923
2034–2038	28,710	3,655	6,539	38,904
2039–2042	31,930	906	1,622	34,458
Total	$ 110,140	$ 20,347	$ 34,997	$ 165,484

(1) Interest requirement for the variable rate debt and the variable portion of the interest rate swaps was determined by using the interest rates that were in effect at the financial statement date of September 30, 2019. The fixed portion of the interest rate swaps was determined based on the actual fixed rates of the outstanding interest rate swaps at September 30, 2019.

(Dollars in Thousands)

8. Long-Term Debt (continued)

Credit Risk – JEA is exposed to credit risk on hedging derivative instruments that are in asset positions. To minimize its exposure to loss related to credit risk, the Board has established limits on the notional amount of JEA's interest rate swap transactions and standards for the qualification of financial institutions with which JEA may enter into interest rate swap transactions. The counterparties with which JEA may deal must be rated (i) "AAA"/"Aaa" by one or more nationally recognized rating agencies at the time of execution, (ii) "A"/"A2" or better by at least two of such credit rating agencies at the time of execution, or (iii) if such counterparty is not rated "A"/"A2" or better at the time of execution, provide for a guarantee by an affiliate of such counterparty rated at least "A/A2" or better at the time of execution where such affiliate agrees to unconditionally guarantee the payment obligations of such counterparty under the swap agreement. In addition, each swap agreement will require the counterparty to enter into a collateral agreement to provide collateral when the ratings of such counterparty (or its guarantor) fall below "AA-"/"Aa3" and a payment is owed to JEA. With respect to swap agreements entered into in 2014 between JEA and three swap counterparties, each counterparty will be required to provide collateral when (a) the ratings of such counterparty fall below "A+"/"A1" by any one of the rating agencies and (b) a termination payment would be owed to JEA above a specified threshold amount. All outstanding interest rate swaps at September 30, 2019, were in a liability position. Therefore, if counterparties failed to perform as contracted, JEA would not be subject to any credit risk exposure at September 30, 2019.

JEA's floating to fixed interest rate swap counterparty credit ratings at September 30, 2019, are as follows:

Counterparty	Counterparty Credit Ratings S&P/Moody's/Fitch	Outstanding Notional Amount
Morgan Stanley Capital Service Inc.	BBB+/A3/A	$ 170,405,000
Goldman Sachs Mitsui Marine Derivative Products L.P.	AA-/Aa2/not rated	136,480,000
JPMorgan Chase Bank, N.A.	A+/Aa2/AA	124,375,000
Merrill Lynch Derivative Products AG	A-/A2/A+	85,290,000
Total		$ 516,550,000

Interest Rate Risk – JEA is exposed to interest rate risk where changes in interest rates could affect the related net cash flows and fair values of outstanding interest rate swaps. On a pay-fixed, receive-variable interest rate swap, as the floating swap index decreases, JEA's net payment on the swap increases, and as the fixed rate swap market declines as compared to the fixed rate on the swap, the fair value declines.

Basis Risk – JEA is exposed to basis risk on certain pay-fixed interest rate swap hedging derivative instruments because the variable-rate payments received on certain hedging derivative instruments are based on a rate or index other than interest rates that JEA pays on its hedged variable-rate debt, which is reset every one or seven days. As of September 30, 2019, the weighted-average interest rate on JEA's hedged variable-rate debt (excluding variable rate CPI bonds) is 1.77%, while the SIFMA swap index rate is 1.58% and 68% of LIBOR is 1.43%.

(Dollars in Thousands)

8. Long-Term Debt (continued)

Termination Risk – JEA or its counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. If at the time of termination, a hedging derivative instrument were in a liability position, JEA would be liable to the counterparty for a payment equal to the liability.

Market Access Risk – JEA is exposed to market access risk due to potential market disruptions in the municipal credit markets that could inhibit the issuing or remarketing of bonds and related hedging instruments. JEA maintains strong credit ratings (see Debt Administration section of the Management Discussion and Analysis) and, to date, has not encountered any barriers to the credit markets.

9. Transactions with City of Jacksonville

Utility and Administrative Services

JEA is a separately governed authority and considered a discretely presented component unit of the City. JEA provides electric, water, and sewer service to the City and its agencies and bills for such service using established rate schedules. JEA utilizes various services provided by departments of the City including insurance, legal, and motor pool. JEA is billed on a proportionate cost basis with other user departments and agencies. The revenues for services provided and expenses for services received by JEA for these related-party transactions with the City were as follows:

	2019	2018
Revenues	**$ 27,494**	$ 26,513
Expenses	**$ 5,393**	$ 6,031

City Contribution

On March 22, 2016, the City and JEA entered into a five-year agreement, which established the contribution formula for the fiscal years 2017 through 2021. On February 28, 2019, the agreement was amended to extend its expiration date to September 30, 2023 and to make an additional contribution to the City of $15,155.

Although the calculation for the annual transfer of available revenue from JEA to the City is based upon formulas that are applied specifically to each utility system operated by JEA, JEA, at its sole discretion, may utilize any of its available revenues, regardless of source, to satisfy its total annual obligation to the City.

(Dollars in Thousands)

9. Transactions with City of Jacksonville (continued)

The contributions from the JEA Electric Enterprise Fund and JEA Water and Sewer Fund for fiscal years 2019 and 2018 were as follows:

	2019	2018
Electric	**$ 92,952**	$ 91,472
Water and Sewer	**$ 39,850**	$ 25,148

The JEA Electric Enterprise Fund is required to contribute annually to the General Fund of the City an amount equal to 7.468 mills per kilowatt hour delivered by JEA to retail users in JEA's service area and to wholesale customers under firm contracts having an original term of more than one year, other than sales of energy to FPL from JEA's SJRPP System. The JEA Water and Sewer Fund is required to contribute annually to the General Fund of the City an amount equal to 389.2 mills per thousand gallons of potable water and sewer service provided, excluding reclaimed water service. These calculations are subject to a minimum increase of 1% per year through 2021, using 2016 as the base year for the combined assessment for the Electric Enterprise Fund and Water and Sewer Fund. There is no maximum annual assessment.

Franchise Fees

In 2008, the City enacted a 3.0% franchise fee from designated revenues of the Electric and Water and Sewer systems. The ordinance authorizes JEA to pass through these fees to its electric and water and sewer funds. These amounts are included in operating revenues and expenses and were as follows:

	2019	2018
Electric	**$ 29,110**	$ 28,496
Water and Sewer	**$ 10,802**	$ 10,476

Insurance Risk Pool

JEA is exposed to various risks of loss related to torts, theft and destruction of assets, errors and omissions, and natural disasters. In addition, JEA is exposed to risks of loss due to injuries and illness of its employees. These risks are managed through the Risk Management Division of the City, which administers the public liability (general liability and automobile liability) and workers' compensation self-insurance program covering the activities of the City general government, JEA, Jacksonville Housing Authority, Jacksonville Port Authority, and the Jacksonville Aviation Authority. The general objectives are to formulate, develop, and administer, on behalf of the members, a program of insurance to obtain lower costs for that coverage and to develop a comprehensive loss control program.

(Dollars in Thousands)

9. Transactions with City of Jacksonville (continued)

JEA has excess coverage for individual workers' compensation claims above $1,200. Liability for claims incurred is the responsibility of, and is recorded in, the City's self-insurance plan. The premiums are calculated on a retrospective or prospective basis, depending on the claims experience of JEA and other participants in the City's self-insurance program. The liabilities are based on the estimated ultimate cost of settling the claim including the effects of inflation and other societal and economic factors. The JEA workers' compensation expense is the premium charged by the City's self-insurance plan. JEA is also a participant in the City's general liability insurance program. As part of JEA's risk management program, certain commercial insurance policies are purchased to cover designated exposures and potential loss programs. These amounts are included in operating expenses and were as follows:

	2019	2018
General liability	**$ 2,042**	$ 2,240
Workers' compensation	**$ 1,212**	$ 1,613

The following table shows the estimated workers' compensation and general liability loss accruals for the City and JEA's portion for the fiscal years ended September 30, 2019 and 2018. The amounts are recorded by the City at present value using a 4% discount rate for the fiscal years ended September 30, 2019 and September 30, 2018.

	Workers' Compensation		General Liability	
	City of Jacksonville	JEA Portion	City of Jacksonville	JEA Portion
Beginning balance	$ 99,151	$ 2,592	$ 15,300	$ 2,556
Change in provision	29,726	947	7,660	1,055
Payments	(26,119)	(675)	(6,415)	(950)
Ending balance	$ 102,758	$ 2,864	$ 16,545	$ 2,661

10. Fuel Purchase and Purchased Power Commitments

JEA has made long-term commitments to purchase 1,170,000 tons of coal for Scherer Unit 4 between October 2019 and December 2022. Additionally, in September 2019, JEA has committed to purchase approximately 70,000 and 120,000 tons of coal and pet coke, respectively, for Northside. Contract terms specify minimum annual purchase commitments at fixed prices or at prices that are subject to market adjustments. JEA has remarketing rights under the coal contracts. The majority of JEA's coal and petroleum coke supply is purchased with transportation included.

In addition, JEA participates in Georgia Power agreements with rail carriers for the delivery of coal to Scherer Unit 4. Georgia Power Company, acting for itself and as agent for JEA and the other Scherer co-owners, has entered into an agreement with Burlington Northern Santa Fe Railway Company (BNSF) that extends the rail contract through calendar year 2028. Georgia Power has also entered into an agreement with the Norfolk Southern Railway Company (NS) that extends through December 31, 2019.

(Dollars in Thousands)

10. Fuel Purchase and Purchased Power Commitments (continued)

JEA has commitments to purchase natural gas delivered to Jacksonville under a long-term contract with Shell Energy North America L.P. (Shell Energy) that expire in 2021. In October 2019, the JEA Board approved a 10-year extension of the agreement with Shell Energy. Contract terms for the natural gas supply specify minimum annual purchase commitments at market prices. JEA has the option to remarket any excess natural gas purchases. In addition to the gas delivered by Shell Energy, JEA has long-term contracts with Peoples Gas system, Florida Gas Transmission, Southern Natural Gas and SeaCoast Gas Transmission for firm gas transportation to allow the delivery of natural gas through those pipeline systems. There is no purchase commitment of natural gas associated with those transportation contracts.

In the unlikely event that JEA would not be in a position to fulfill its obligations to receive fuel and purchased power under the terms of its existing fuel and purchased power contracts, JEA would nonetheless be obligated to make certain future payments. If the conditions necessitating the future payments occurred, JEA would mitigate the financial impact of those conditions by remarketing the fuel and purchased power at then-current market prices. The aggregate amount of future payments that JEA does not expect to be able to mitigate appears in the table below:

Fiscal Year Ending	Coal and Pet Coke Fuel	Coal and Pet Coke Transportation	Natural Gas Transportation	Electric Generating Capacity / Energy	Transmission	Total
2020	$ 2,360	$ 2,748	$ 7,256	$ 2,050	$ 6,495	$ 20,909
2021	810	–	7,024	–	6,772	14,606
2022	504	–	6,606	–	7,030	14,140
2023	118	–	6,606	–	7,403	14,127
2024	–	–	6,624	–	7,780	14,404
2025-2042	–	–	44,053	–	173,961	218,014
Total	$ 3,792	$ 2,748	$ 78,169	$ 2,050	$ 209,441	$ 296,200

Vogtle Units Purchased Power Agreement

Overview

As a result of an earlier 2008 Board policy establishing a 10% of total energy from nuclear energy goal, JEA entered into a power purchase agreement (as amended, the Additional Vogtle Units PPA) with the Municipal Electric Authority of Georgia (MEAG) for 206 megawatts (MW) of capacity and related energy from MEAG's interest in two additional nuclear generating units (the Additional Vogtle Units or Plant Vogtle Units 3 and 4) under construction at the Alvin W. Vogtle Nuclear Plant in Burke County, Georgia. The owners of the Additional Vogtle Units include Georgia Power Company (Georgia Power), Oglethorpe Power Corporation, MEAG and the City of Dalton, Georgia (collectively, the Vogtle Co-Owners). The energy received under the Additional Vogtle Units PPA is projected to represent approximately 13% of JEA's total energy requirements in the year 2023.

10. Fuel Purchase and Purchased Power Commitments (continued)

The Additional Vogtle Units PPA requires JEA to pay MEAG for the capacity and energy at the full cost of production (including debt service on the bonds issued and to be issued by MEAG and on the loans made and to be made by the Project J Entity referred to below, in each case, to finance the portion of the capacity to be sold to JEA from the Additional Vogtle Units) plus a margin over the term of the Additional Vogtle Units PPA. Under the Additional Vogtle Units PPA, JEA is entitled to 103 MW of capacity and related energy from each of the Additional Vogtle Units for a 20-year term commencing on each Additional Vogtle Unit's commercial operation date and is required to pay for such capacity and energy on a "take-or-pay" basis (that is, whether or not either Additional Vogtle Unit is completed or is operating or operable, whether or not its output is suspended, reduced or the like, or terminated in whole or in part) except that JEA is not obligated to pay the margin referred to above during such periods in which the output of either Additional Vogtle Unit is suspended or terminated.

On September 11, 2018, MEAG filed a complaint in the United States District Court for the Northern District of Georgia seeking a declaratory judgment that the Additional Vogtle Units PPA is lawful and enforceable, breach of contract for JEA's alleged failure to adhere to the Additional Vogtle Units PPA's cooperation clause, and ordering specific performance from JEA with the terms of the Additional Vogtle Units PPA. On the same day, JEA and the City, as co-plaintiffs, filed a complaint in the Fourth Judicial Circuit Court of Florida seeking a declaratory judgment that the Additional Vogtle Units PPA violates the Florida Constitution and laws and public policy of the state of Florida and is therefore ultra vires, void ab initio, and unenforceable. On April 9, 2019, the district court for the Northern District of Georgia entered an order granting JEA's motion to dismiss and dismissing MEAG's complaint. MEAG has filed a notice of appeal of the dismissal to the Eleventh Circuit Court of Appeals. On July 12, 2019, the Middle District of Florida ordered the case initiated by JEA and the City transferred to the Northern District of Georgia, where the substantive issues will be tried. For additional information about such litigation, see the *Litigation and Regulatory Proceedings* section in this note.

Financing and In-Service Costs

MEAG created three separate projects (the Vogtle Units 3 and 4 Project Entities) for the purpose of owning and financing its 22.7% undivided ownership interest in the Additional Vogtle Units (representing approximately 500.308 MW of capacity and related energy based upon the nominal rating of the Units). The project corresponding to the portion of MEAG's ownership interest, which will provide the capacity and energy to be purchased by JEA under the Additional Vogtle Units PPA, is referred to herein as Project J. MEAG currently estimates that the total in-service cost for its entire undivided ownership interest in the Additional Vogtle Units will be approximately $6,375,400, including construction costs, financing costs through the estimated in-service dates, contingencies, initial fuel load costs, and switchyard and transmission costs. MEAG has additionally provided that its total capital costs for its share of the Additional Vogtle Units, including reserve funds and other fund deposits required under the financing documents, are approximately $6,851,600. Based on information provided by MEAG, (i) the portion of the total in-service cost for Plant Vogtle Units 3 and 4 allocable to Project J is approximately $2,691,200 and (ii) the portion of additional in-service costs relating to reserve funds and other fund deposits is approximately $204,200 resulting in total capital requirements of approximately $2,895,400.

10. Fuel Purchase and Purchased Power Commitments (continued)

Financing for Project J – In order to finance a portion of its acquisition and construction of Project J and to refund bond anticipation notes previously issued by MEAG, MEAG issued approximately $1,248,435 of its Plant Vogtle Units 3 and 4 Project J Bonds (the 2010 PPA Bonds) on March 11, 2010. Of the total 2010 PPA Bonds, approximately $1,224,265 were issued as Federally Taxable – Issuer Subsidy – Build America Bonds where MEAG expects to receive a cash subsidy payment from the United States Treasury for 35% of the related interest, subject to reduction due to sequestration. At this time, a portion of the interest subsidy payments with respect to the Build America Bonds is not being paid as a result of the federal government sequestration process and the Bipartisan Budget Act of 2019 for the current fiscal year through fiscal year 2029. The exact amount of such reduction is determined on or about the beginning of the federal government's fiscal year, or October 1, and is subject to adjustment thereafter. The current reduction amount of 5.9% became effective on October 1, 2019. MEAG issued $185,180 of additional Project J tax-exempt bonds on September 9, 2015. In addition, MEAG issued $570,925 of additional Project J tax-exempt bonds on July 19, 2019. JEA was not asked to, and did not, provide updated disclosure regarding JEA in connection with the preparation of MEAG's July 18, 2019 Project J Bonds Series 2019A Official Statement relating to the issuance and JEA did not make any representations or warranties, or deliver any opinions of legal counsel, in connection with the offering, issuance, and sale of the Project J Series 2019A Bonds.

On June 24, 2015, in order to obtain certain loan guarantees from the United States Department of Energy (DOE) for further funding of Plant Vogtle Units 3 and 4, MEAG divided its undivided ownership interest in Plant Vogtle Units 3 and 4 into three separate undivided interests and transferred such interests to the Vogtle Units 3 and 4 Project Entities. MEAG transferred approximately 41.175% of its ownership interest, representing 206 MW of nominally rated generating capacity (which is the portion of MEAG's ownership interest attributable to Project J), to MEAG Power SPVJ, LLC (the Project J Entity).

The Project J Entity entered into a loan guarantee agreement with the DOE in 2015, subsequently amended in 2016 and 2017, under which the Project J Entity is permitted to borrow from the Federal Financing Bank (FFB) an aggregate amount of approximately $575,738, all of which has been advanced to date.

On September 28, 2017, DOE, MEAG, and the Vogtle Units 3 and 4 Project Entities entered into a conditional commitment for additional DOE loan guarantees in the aggregate amount of $414,700. On March 22, 2019, MEAG announced that it had closed on the additional DOE loan guarantees in the aggregate amount of $414,700. The Project J Entity's portion of the $414,700 in additional loan guarantees is $111,547 and this amount currently remains undrawn. MEAG expects that the total financing needs for Project J will exceed the aggregate of the Project J Entity's FFB lending commitments and the balance will be financed in the capital markets.

(Dollars in Thousands)

10. Fuel Purchase and Purchased Power Commitments (continued)

Summary of financing associated with Project J:

Long-term bonds	
2010A Build America bonds	1,224,265
2010B tax-exempt bonds	24,170
2015A tax-exempt bonds	185,180
2019A tax-exempt bonds	570,925
Remaining financing requirement	20,646
Total long-term bonds	2,025,186
DOE advances[1]	
2015 DOE advances	345,990
2019 DOE advances	229,748
Total DOE advances	575,738
Estimated interest earnings and bond premiums	182,929
Remaining DOE capacity	111,547
Total capital requirements[2]	$ 2,895,400

(1) Includes advances and related capitalized interest accretion.

(2) Represents estimated total construction costs and required reserve deposits, net of payments received.

(Dollars in Thousands)

10. Fuel Purchase and Purchased Power Commitments (continued)

Based on information provided by MEAG, JEA's portion of the debt service on the outstanding Project J debt as of September 30, 2019 is summarized as follows:

Fiscal Year Ending September 30	Principal	Interest	Annual Debt Service	Build America Bonds Subsidy	Capitalized Interest	Net Debt Service
2020	$ 19,708	$ 132,376	$ 152,084	$ (27,392)	$ (104,984)	$ 19,708
2021	22,682	132,051	154,733	(27,100)	(104,951)	22,682
2022	25,393	130,725	156,118	(26,790)	(53,085)	76,243
2023	28,224	129,410	157,634	(26,466)	(7,124)	124,044
2024	29,554	128,037	157,591	(26,129)	–	131,462
2025	30,697	126,447	157,144	(25,776)	–	131,368
2026	31,866	124,840	156,706	(25,409)	–	131,297
2027	33,052	123,251	156,303	(25,026)	–	131,277
2028	34,367	121,387	155,754	(24,626)	–	131,128
2029	35,685	119,616	155,301	(24,209)	–	131,092
2030	37,062	117,731	154,793	(23,774)	–	131,019
2031	38,496	115,768	154,264	(23,320)	–	130,944
2032	39,944	113,836	153,780	(22,847)	–	130,933
2033	41,558	111,566	153,124	(22,353)	–	130,771
2034	43,199	109,353	152,552	(21,838)	–	130,714
2035	44,879	107,082	151,961	(21,301)	–	130,660
2036	39,348	104,715	144,063	(20,740)	–	123,323
2037	27,796	102,183	129,979	(20,155)	–	109,824
2038	22,982	99,641	122,623	(19,545)	–	103,078
2039	21,245	96,838	118,083	(18,909)	–	99,174
2040	13,004	94,020	107,024	(18,246)	–	88,778
2041	9,912	91,039	100,951	(17,553)	–	83,398
2042	5,515	45,877	51,392	(9,217)	–	42,175
2043	770	6,113	6,883	(1,249)	–	5,634
Total	$ 676,938	$ 2,583,902	$ 3,260,840	$ (519,970)	$ (270,144)	$ 2,470,726

10. Fuel Purchase and Purchased Power Commitments (continued)

Construction Arrangements for the Additional Vogtle Units

As a result of the bankruptcy of the original contractor for the Additional Vogtle Units and increases in the construction costs, the Vogtle Co-Owners have restructured the construction arrangements for the Additional Vogtle Units. Under the restructured construction arrangements:

- Bechtel Power Corporation (Bechtel) will serve as the prime construction contractor for the remaining construction activities for Plant Vogtle Units 3 and 4 under a Construction Agreement entered into between Bechtel and Georgia Power, acting for itself and as agent for the other Vogtle Co-Owners (the Construction Agreement), which is a cost reimbursable plus fee arrangement, which means that the Construction Agreement does not require Bechtel to absorb any increases in construction costs.

- In August 2018, the Vogtle Co-Owners approved amendments to their joint ownership agreements for Plant Vogtle Units 3 and 4 (as amended, the Vogtle Joint Ownership Agreements) that limit the circumstances under which the holders of at least 90% of the ownership interests in Plant Vogtle Units 3 and 4 are required to approve the continuance of the construction of the Additional Vogtle Units to a few events, including the delay of one year or more over the most recently approved project schedule. Such events do not include increases in the construction budget.

- Under the Vogtle Joint Ownership Agreements, Georgia Power has the right to cancel the project at any time in its discretion.

The estimated construction costs to complete Project J's share of the Additional Vogtle Units have significantly increased from the original project budget of approximately $1,400,000 to the current estimate of approximately $2,895,400. In addition, significant delays in the project's construction schedule have resulted in the original placed in service dates for Vogtle Unit 3 of April 2016 and for Vogtle Unit 4 of April 2017 being revised to the current projected placed in service dates for Vogtle Unit 3 and for Vogtle Unit 4 of November 2021 and November 2022, respectively.

JEA is not a party to the Construction Agreement or to the Vogtle Joint Ownership Agreements and does not have the right under the Additional Vogtle Units PPA to cause a termination of the Construction Agreement, to cancel the project, or to approve increases in the construction costs or delays in the construction schedule of the project. Accordingly, JEA can provide no assurance that construction costs for the Additional Vogtle Units will not significantly increase or that the schedule of the project will not be significantly delayed.

Increases in construction costs for Plant Vogtle Units 3 and 4 result in increases in the payment obligations of JEA for capacity and energy under the Additional Vogtle Units PPA. See the *Overview* and *Financing and In-Service Costs* sections above and *Litigation and Regulatory Proceedings* section below for a description of the complaint filed by JEA and the City challenging the enforceability of the Additional Vogtle Units PPA.

10. Fuel Purchase and Purchased Power Commitments (continued)

Litigation and Regulatory Proceedings

Litigation – As noted in the *Overview* section and under this section herein, on September 11, 2018, MEAG filed suit against JEA in the Northern District of Georgia alleging claims for (i) a declaratory judgment that the Additional Vogtle Units PPA is enforceable against JEA, (ii) breach of contract for JEA's alleged failure to adhere to the Additional Vogtle Units PPA's cooperation clause, and (iii) specific performance requiring JEA to continue to comply with the Additional Vogtle Units PPA. The same day, JEA and the City filed suit against MEAG in the Fourth Judicial Circuit Court of Florida seeking a declaratory judgment that the Additional Vogtle Units PPA is invalid and unenforceable against JEA. MEAG removed JEA's and the City's suit to the Middle District of Florida. On April 9, 2019, the district court for the Northern District of Georgia entered an order granting JEA's motion to dismiss and dismissing MEAG's complaint. The court gave several reasons for dismissing MEAG's complaint, including because MEAG lacks standing due to failing to allege a definite threat of future injury and because its claim for breach of the cooperation clause is not actionable absent allegations that JEA had breached another provision of the Additional Vogtle Units PPA. MEAG filed a notice of appeal of the dismissal to the Eleventh Circuit Court of Appeals.

On July 12, 2019, the Middle District of Florida issued an order denying JEA's and the City's motions to remand the case to Florida state court. The court's July 12, 2019 order also granted MEAG's motion to transfer the case to the district court for the Northern District of Georgia. On July 26, 2019, MEAG filed a counterclaim against JEA and the City seeking a declaratory judgment that the Additional Vogtle Units PPA is valid and enforceable, breach of contract for JEA's alleged failure to adhere to the Additional Vogtle Units PPA's cooperation clause, and specific performance requiring JEA to continue to comply with the Additional Vogtle Units PPA. On August 16, 2019, JEA filed defenses to MEAG's counterclaim and alternative counterclaims against MEAG for breach of fiduciary duty, failure to perform in good faith, and negligent performance of an undertaking, in the event the Additional Vogtle Units PPA is determined to be enforceable. On September 6, 2019, MEAG filed motions to strike JEA's defenses and to dismiss JEA's alternative counterclaims. On November 1, 2019, MEAG filed a motion for leave to file a motion for judgment on the pleadings to seek a ruling on its affirmative defenses. JEA filed a memorandum opposing that motion on November 8, 2019. On November 5, 2019, JEA filed a motion for summary judgment seeking a declaration that the Additional Vogtle Units PPA is void and unenforceable. On November 8, 2019, the district court entered an order striking JEA's motion for summary judgment and setting a status conference with the parties. The same date, JEA filed a motion for leave to file a motion for summary judgment. On November 15, 2019, the district court conducted a status conference with the parties and subsequently entered an order staying all motions in the case pending submission of a revised scheduling order by December 15, 2019. On November 25, 2019, the court entered an order denying in whole MEAG's motion to strike certain of JEA's and the City of Jacksonville's affirmative defenses. The Court also dismissed two of JEA's counterclaims against MEAG, but left intact JEA's claim against MEAG for breach of the PPA based on a negligent undertaking theory, which claim is contingent and brought only in the event of a finding that the PPA is enforceable.JEA will vigorously defend and prosecute these actions, but provides no assurances regarding the outcome or consequences of the litigation.

Settlement Negotiations – JEA and MEAG have commenced negotiations in an attempt to arrive at a mutually beneficial commercial resolution of their dispute. The ultimate outcome of this matter cannot be determined at this time.

10. Fuel Purchase and Purchased Power Commitments (continued)

Regulatory Proceedings – On September 17, 2018, JEA filed a petition with the Federal Energy Regulatory Commission (FERC) seeking a determination that FERC has exclusive jurisdiction pursuant to the Federal Power Act over the Additional Vogtle Units PPA (FERC Petition). Numerous entities, including MEAG, public utilities, municipalities, and trade groups, filed comments with FERC challenging the theories of law and arguments raised in the FERC Petition. On February 21, 2019, FERC issued an order denying the FERC Petition and disclaimed jurisdiction over the Additional Vogtle Units PPA. JEA did not seek FERC's reconsideration of the order.

Option to Purchase Interest in Lee Nuclear Station

On February 1, 2011, JEA entered into an option agreement with Duke Energy Carolinas, LLC (Duke Carolinas), a wholly owned subsidiary of Duke Energy Corporation, pursuant to which JEA has the option (but not the obligation) to purchase an undivided ownership interest of not less than 5% and not more than 20% of the proposed two-unit nuclear station currently known as William States Lee III Nuclear Station, Units 1 and 2 to be constructed at a site in Cherokee County, South Carolina (the Lee Project). The Lee Project planned to have 2,234 MW of electric generating capacity with a projected on-line date of 2026 with respect to Unit 1 and 2028 with respect to Unit 2. The total cost of the option was $7,500, with $3,750 paid in both fiscal year 2011 and 2012, respectively. JEA obtained this option in furtherance of its 2010 policy target to acquire up to 30% of JEA's energy requirements from nuclear sources by 2030.

The option agreement requires that JEA and Duke Carolinas complete negotiation of an ownership agreement and an operation and maintenance agreement for the Lee Project prior to JEA exercising the option. The option exercise period will be opened by Duke Carolinas after it (i) receives NRC approval of the COL for the Lee Project and (ii) executes an engineering, procurement, and construction agreement for the Lee Project. The Lee Project COL was received from the NRC in December 2016. In August 2017, Duke Carolinas filed with the North Carolina Utilities Commission and the South Carolina Public Service Commission to cancel the plant. This cancellation allows Duke Carolinas to seek cost recovery for the expenditures on licensing the plant, however, the NRC license remains active and the cancellation is not permanent. There is currently no schedule for negotiating an EPC agreement.

Once the exercise period is opened, JEA will have 90 days within which to exercise the option, and, if it does exercise the option, it must specify the percentage undivided ownership interest in the Lee Project that it will acquire.

After JEA exercises the option (should it elect to do so) and various regulatory approvals are obtained, JEA must pay Duke Carolinas the exercise price for the option. Such price is generally JEA's pro rata share, based on its percentage ownership interest in the Lee Project, of the development and pre construction cost for the Lee Project incurred by Duke Carolinas from the beginning of the Lee Project through the closing date of the option exercise. JEA is undecided as to the financing structure it would employ to finance its interest in the Lee Project, should it elect to exercise its option.

Under certain circumstances, should the Lee Project be terminated by Duke Carolinas, Duke may be obligated to provide JEA with options for alternative resources (but not necessarily from nuclear resources) to replace JEA's optional portion of the projected Lee Project capacity.

10. Fuel Purchase and Purchased Power Commitments (continued)

Such alternative resources are to be available to JEA within two years of the projected online date for the Lee Project, once such date is set. No alternative resource for the Lee Project has yet been proposed by Duke Carolinas.

Solar Projects

In 2009, JEA entered into a 30-year purchased power agreement with Jacksonville Solar, LLC for the produced energy, as well as the associated environmental attributes from a solar farm, Jacksonville Solar, which has been constructed in JEA's service territory. The facility, which consists of 200,000 photovoltaic panels on a JEA-leased 100-acre site, is owned by PSEG Solar Source, LLC and generated approximately 18,018 MWh of electricity in 2019 and 18,391 MWh of electricity in 2018. JEA pays only for the energy produced. Purchases of energy were $3,619 for fiscal year 2019 and $3,592 in 2018.

As part of JEA's continued commitment to the environment, and to increase JEA's level of carbon-free renewable energy generation, in December 2014, the Board established a solar policy to add up to 38 MWac of solar photovoltaic capacity. To support this policy, JEA issued Requests for Proposals for Power Purchase Agreements (PPAs) in December 2014 and April 2015. Seven PPAs, representing 27 MWac, have been finalized. The solar PPAs are distributed around JEA's service territory.

The projects for this 2014 initiative are scheduled for completion in 2019. As of the end of fiscal year 2019, six of the seven projects had been completed: NW Jacksonville Solar, Old Plank Road Solar, Starratt Solar, Simmons Solar, Blair Road Solar, and Old Kings Solar. JEA entered into 20-25 year purchased power agreements for the energy and the associate environmental attributes from each solar farm. The solar facilities generated approximately 41,932 MWh in 2019 and 36,755 MWh in 2018. JEA pays only for the energy produced. Purchases of energy were $3,133 for fiscal year 2019 and $2,703 in 2018.

The JEA Board approved a further solar expansion consisting of five 50 MWac solar facilities to be constructed on JEA owned property. These projects, totaling 250 MWac, are structured as PPAs. EDF-DS was selected as the vendor for the sites and contract were executed in January 2019. Preliminary site work is underway. It is expected the facilities will be phased into service with all sites completed by 2022.

Trail Ridge Landfill

JEA purchases energy from two landfill gas-to-energy facilities through PPA agreements with Landfill Energy Systems (LES). Each agreement is for 9.6 MWs. Currently, JEA purchases 9.6 MW from Trail Ridge Landfill in Jacksonville, FL and 6.4 MW from Sarasota Landfill in Sarasota, FL. LES can supply the remaining 3.2 MW from Sarasota if it is expanded and becomes available. JEA pays only for the energy produced. LES pays all transmission and ancillary charges associated with transmitting the energy from Sarasota to Jacksonville, which came online in January 2015. Purchases of landfill energy were 87,864 MWh for $5,813 in fiscal year 2019 and 89,682 MWh for $4,554 in 2018.

11. Energy Market Risk Management Program

The energy market risk management program is intended to help manage the risk of changes in the market prices of fuel consumed by JEA for electric generation. JEA entered into financial swaps that locked in the monthly commodity price of natural gas for calendar year 2018 and February 2019 through December 2022, covering approximately 40% in calendar year 2018 and approximately 44% in calendar years 2019 through 2022 of its expected annual natural gas requirements.

JEA executes over-the-counter forward purchase and sale contracts and swaps. For effective derivative transactions, hedge accounting is applied in accordance with GASB Statement No. 53 and the fair market value changes are recorded on the accompanying statements of net position as either a deferred charge or a deferred credit until such time that the transactions end. At September 30, 2019, deferred charges of $11,598 were included in accumulated decrease in fair value of hedging derivatives and, at September 30, 2018, deferred credits of $2,536 were included in accumulated increase in fair value of hedging derivatives on the statements of net position. The related settled gains and losses from these transactions are recognized as fuel expenses on the accompanying statements of revenues, expenses, and changes in net position. There were realized gains offsetting fuel expense of $789 in fiscal year 2019 and $4,191 in 2018.

12. Pension Plans

Substantially all employees of the Electric System and Water and Sewer System participate in and contribute to the GERP, as amended. The GERP is a cost-sharing, multiple-employer contributory defined benefit pension plan with a defined contribution alternative. GERP, based on laws outlined in the City's Ordinance Code and applicable Florida statutes, provides for retirement, survivor, death, and disability benefits. Its latest financial statements and required supplementary information are included in the 2018 Comprehensive Annual Financial Report of the City. This report may be obtained at: http://www.coj.net/departments/finance/docs/budget/city-of-jacksonville-2018-cafr-sec.aspx or by writing to the City of Jacksonville, Florida, Accounting Division, City Hall at St. James Building, 117 West Duval Street, Suite 375, Jacksonville, Florida 32202-5725.

The first phase of pension reform was approved by the City in April 2017. The reform provides for a dedicated funding source for the GERP, Corrections Officers Plan, and Police and Fire Pension Plan through the extension of the Better Jacksonville Plan half-cent sales tax. The surtax will remain in effect until the earlier of December 31, 2060 or when it is determined by the actuarial report to the Florida Department of Management Services that the funding level of each of the City's three defined benefit retirement plans, which are funded by surtax, is expected to reach or exceed 100%.

In order for the plan to benefit from the sales tax revenue, the defined benefit pension plan portion of the GERP was closed to new members and employees as of September 30, 2017.

12. Pension Plans (continued)

Plan Benefits Provided – Participation in the GERP is mandatory for all full-time employees of JEA, Jacksonville Housing Authority, North Florida Transportation Planning Authority, and the City, other than police officers and firefighters. Appointed officials and permanent employees not in the civil service system may opt to become members of GERP. Elected officials are members of the Florida Retirement System Elected Officer Class. Members of the GERP are eligible to retire with a normal pension benefit upon achieving one of the following: (a) completing 30 years of credited service, regardless of age; (b) attaining age 55 with 20 years of credited service; or (c) attaining age 65 with five years of credited service. There is no mandatory retirement age.

Upon reaching one of the three conditions for retirement described above, a member is entitled to a retirement benefit of 2.5% of final average compensation, multiplied by the number of years of credited service, up to a maximum benefit of 80% of final monthly compensation. A time service retirement benefit is payable bi-weekly, to commence upon the first payday coincident with or next payday following the member's actual retirement, and will continue until death.

Each member and survivor is entitled to a cost of living adjustment (COLA). The COLA consists of a 3% increase of the retiree's or survivor's pension benefits, which compounds annually. The COLA commences in the first full pay period of April occurring at least 4.5 years (and no more than 5.5 years) after retirement. In addition, there is a supplemental benefit. The supplemental benefit is equal to five dollars ($5) multiplied by the number of years of credited service. This benefit may not exceed $150 per month.

Contributions – Florida law requires plan contributions be made annually in amounts determined by an actuarial valuation in either dollars or as a percentage of payroll. The Florida Division of Retirement reviews and approves the City's actuarial report to ensure compliance with actuarial standards and appropriateness for funding purposes. In fiscal years 2019 and 2018, JEA plan members were required to contribute 10% of their annual covered salary. JEA's contribution of the covered payroll for the JEA plan members was $34,345 (25.62%) in fiscal year 2019 and $35,459 (26.36%) in 2018. Contributions were made in accordance with contribution requirements determined through an actuarial valuation.

Defined Contribution Plan

The City has, by ordinance, a defined contribution (DC) plan within the Jacksonville Retirement System for GERP participants as an employee choice alternative to the defined benefit (DB) plans. Beginning in fiscal year 2011, employees had the option to participate in a DC plan. Employees vest in the employer contributions to the plan at 25% after two years, and 25% per year thereafter until fully vested after five years of service. Employees hired prior to September 30, 2017 can electively change from the DC plan to the DB plan, or vice versa, up to three times within their first five years of participation. All employees hired after September 30, 2017 now enter this plan.

In fiscal years 2019 and 2018, JEA plan members of the defined contribution plan were required to contribute 8% of their annual covered salary. JEA's contribution for the members of the defined contribution plan was $2,783 (11.25%) in fiscal year 2019 and $1,886 (11.31%) in 2018. Any contribution forfeitures were used to offset plan expenses.

(Dollars in Thousands)

12. Pension Plans (continued)

Disability Program Fund

All contributions for both the defined contribution and defined benefit plans of the City were separated between the pension contribution and a disability program fund. However, beginning with the October 1, 2018 valuation, the assets and liabilities associated with the fund were transferred back to the GERP to consolidate the administration of the disability benefits within the pension.

Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflow of Resources Related to Pensions

Net Pension Liability – JEA's net pension liability at September 30, 2019 and September 30, 2018 was measured based on an actuarial valuation as of September 30, 2018 and September 30, 2017, respectively. JEA's allocated share of the net pension liability is $562,371 (50.59%) as of September 30, 2019, based on an allocation proportional to the actual contributions paid during the year ended September 30, 2018. JEA's allocated share of the net pension liability is $527,680 (51.68%) as of September 30, 2018, based on an allocation proportional to the actual contributions paid during the year ended September 30, 2017.

For the year ended September 30, 2019 and 2018, JEA's recognized pension expense is $80,303 and $77,111, respectively. As JEA has implemented regulatory accounting for pensions, the difference between the recognized pension expense and the cash contributions paid has been deferred as a regulatory asset. See note 2, Regulatory Deferrals, for additional details.

JEA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	September 30	
	2019	**2018**
Deferred outflows of resources		
Changes in assumptions	**$ 64,906**	$ 59,741
Contributions subsequent to the measurement date	**34,345**	35,459
Differences between expected and actual experience	**17,176**	25,477
Changes in proportion	**11,588**	16,452
Total	**$ 128,015**	$ 137,129
Deferred inflows of resources		
Net difference between projected and actual earnings on pension investments	**$ (31,964)**	$ (37,760)
Changes in proportion	**$ (7,680)**	$ –
Changes in assumptions	**(1,826)**	(3,730)
Differences between expected and actual experience	**(3,244)**	(1,543)
Total	**$ (44,714)**	$ (43,033)

(Dollars in Thousands)

12. Pension Plans (continued)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended September 30	Recognition of Deferred Outflows (Inflows)
2020	$ 65,231
2021	14,954
2022	3,413
2023	(297)
Total	$ 83,301

Actuarial Assumptions – The total pension liability was determined by an actuarial valuation as of September 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75%
Salary increases assumption	3.00%-7.50%, of which 2.50% is the Plan's long-term payroll inflation
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Healthy pre-retirement mortality rates	50% RP2000 Combined Healthy White Collar and 50% RP2000 Combined Healthy Blue Collar, set forward 2.5 years, projected generationally with Scale BB for males; RP2000 Combined Healthy White Collar, set forward 2.5 years, projected generationally with Scale BB for females.
Healthy post-retirement mortality rates	50% RP2000 White Collar Annuitant and 50% RP2000 Blue Collar Annuitant, set forward 2.5 years, projected generationally with Scale BB for males; RP2000 White Collar Annuitant, set forward 2.5 years, projected generationally with Scale BB for females.
Disabled mortality rates	RP-2000 Disabled Retiree Mortality Table, setback four years for males and set forward two years for females

The actuarial assumptions used in the valuations were based on the results of an experience study for the period October 1, 2012 to September 30, 2017. Data from the experience study is reviewed in conjunction with each annual valuation and updates to the mortality improvement scale and discount rate have been made as of September 30, 2018.

(Dollars in Thousands)

12. Pension Plans (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentages and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2018, are summarized in the following table. The long-term expected real rates of return are based on 20-year projections of capital market assumptions provided by Segal Marco Advisors.

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Domestic equity	30.0%	6.41%
Fixed income	20.0%	1.96%
International equity	20.0%	6.96%
Real estate	15.0%	4.76%
Alternatives	7.5%	3.83%
Private equity	7.5%	10.41%
Total	100%	

Discount Rate – The discount rate used to measure the total pension liability is 7.00%. The projection of cash flows used to determine the discount rate assumed plan member contributions would be made at their applicable contribution rates and that City contributions would be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on the Plan's investments was applied to all periods of projected benefit payments to determine the total pension liability. Cash flow projections were run for a 120-year period.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate – The following presents the net pension liability of the Jacksonville GERP, calculated using the discount rate of 7.00% for 2019 and 7.20% for 2018, as well as what the Jacksonville GERP's net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the discount rate used:

	Net Pension Liability	
	2019	**2018**
1% decrease	**$ 756,293**	$ 713,777
Current discount	**562,371**	527,680
1% increase	**400,894**	372,518

Pension Plan Fiduciary Net Position – Detailed information about the pension plan's fiduciary net position is included in the 2018 Comprehensive Annual Financial Report of the City.

12. Pension Plans (continued)

St. Johns River Power Park Plan Description

Plan Description – The SJRPP Plan is a single employer contributory defined benefit plan that covers former employees of SJRPP. The SJRPP Plan provides for pension, death, and disability benefits. Participation in the SJRPP Plan was required as a condition of employment. The SJRPP Plan is subject to provisions of Chapter 112 of the State of Florida Statutes and the oversight of the Florida Division of Retirement. The SJRPP Plan is governed by a three-member pension committee (Pension Committee). As part of the Asset Transfer Agreement with FPL related to the shutdown of SJRPP, JEA assumed all payment obligations and other liabilities related to separation benefits for the qualifying SJRPP employees and any amounts required to be deposited in SJRPP Pension Fund.

The SJRPP Plan periodically issues stand-alone financial statements, with the most recent report issued for the year ended September 30, 2018. This report may be obtained at https://www.jea.com/About/Investor_Relations/Financial_Reports/SJRPP_Pension.

Pursuant to the February 25, 2013 amendment, the SJRPP Plan consists of two tiers: Tier One is the Defined Benefits Tier and Tier Two is the Cash Balance Tier. Tier One participants will remain in the traditional defined benefit plan and Tier Two employees (defined as employees with less than 20 years of experience) will participate in a modified defined benefit plan, or “cash balance” plan, with an employer match provided for any Tier Two employee who contributes to the 457 Plan. Participants hired after February 25, 2013 are only eligible to accrue Tier Two benefits.

Plan Benefits Provided – Members of the SJRPP Plan are eligible to retire with a normal pension benefit upon achieving one of the following: (a) completing 30 years of credited service, regardless of age; (b) attaining age 55 with 20 years of credited service; or (c) attaining age 65 with five years of credited service. There is no mandatory retirement age.

Upon reaching one of the three conditions for retirement described above, a member in Tier One is entitled to a retirement benefit of:

- 2.0% of final average earnings (FAE) multiplied by the number of years of credited service, not to exceed 15 years

- plus 2.4% of FAE multiplied by the number of years of credited service in excess of 15 years, but not to exceed 30 years

- plus .65% of the excess FAE over the Social Security Average Wages multiplied by years of credited service, not to exceed 35 years

FAE is the annual average of a participant’s earnings over the highest 36 consecutive complete months out of the last 120 months of participation immediately preceding retirement or termination. Retirement benefits are payable bi-weekly beginning on the first day of the month following or coincident with the participant’s Earliest Retirement Age.

(Dollars in Thousands)

12. Pension Plans (continued)

As of February 25, 2013, the accrued benefits in Tier One of newly classified Tier Two participants were frozen. Distribution of frozen Tier One Benefits is governed by the provisions applicable to Tier One. Tier Two Benefits employees receive annual pay credits to their Cash Balance accounts in the amount of 6.0% of earnings between February 25, 2013 and September 30, 2015 and 8.5% of earnings on or after October 1, 2015. Cash Balance Accounts are credited with interest at the rate of 4% per year. Benefits may be distributed as a lump sum, by rollover in accordance with the Internal Revenue Service Code or as an annuity, at the election of the participant.

For participants retired on or after October 1, 2003, each member and survivor of Tier One is entitled to a COLA. The COLA consists of a 1% increase of the retiree's or survivor's pension benefits, which compounds annually. The COLA commences each October 1 following the fifth anniversary of payment commencement.

Employees Covered by Benefit Terms – At September 30, 2019 and September 30, 2018, the following employees were covered by the benefit terms:

	2019	**2018**
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	**379**	309
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	**85**	54
Active Plan Members	**5**	159
Total Plan Members	**469**	522

Contributions – The SJRPP Plan's funding policy provides for biweekly employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. In fiscal years 2019 and 2018, SJRPP plan members were required to contribute 4% of their annual covered salary. SJRPP did not make any employer contributions in fiscal year 2019. In fiscal year 2018, SJRPP employer's contribution to the SJRPP Plan was $26,409 (454.62%).

Net Pension Liability – SJRPP's net pension liability at September 30, 2019 and September 30, 2018 was measured based on an actuarial valuation as of September 30, 2018 and September 30, 2017, respectively.

(Dollars in Thousands)

12. Pension Plans (continued)

Actuarial Assumptions –The total pension liability in the October 1, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation Date:	October 1, 2018
Measurement Date:	September 30, 2018
Methods and Assumptions Used to Determine Net Pension Liability:	
Actuarial Cost Method	Entry Age Normal
Inflation	2.50%
Salary increases	2.5%–12.5% per year, including inflation
Investment rate of return	6.00% per year compounded annually, net of investment expenses
Retirement Age	Experience-based table of rates based on year of eligibility. Rates of termination and retirement for 9/30/2017 measurement date were modified to reflect retirements and separation upon the SJRPP plant closure.
Mortality rates	Mortality tables used for Regular Class and Special Risk Class members in the July 1, 2017 actuarial valuation of the Florida Retirement System. They are based on the results of a statewide experience study covering the period 2008 through 2013.
Other Information:	
Changes in Assumptions	Long term Expected Rate of Return was changed to 6% per year for the 9/30/2018 measurement date from 7% per year used for 9/30/2017 measurement date.

The actuarial assumptions used in the October 1, 2018 valuation were based on the demographic experience from 2008 through 2013 and economic forecasts available at the time the report was issued. Mortality rates were developed by the Florida Retirement System in a recent experience study and are mandated by the State Statutes for funding valuations.

(Dollars in Thousands)

12. Pension Plans (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation at the measurement date of September 30, 2018, are summarized in the following table.

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Domestic equity	47%	7.35%
Fixed income	45%	2.50%
International equity	8%	6.00%
Total	100%	

Discount Rate – The discount rate used to measure the total pension liability is 6.00%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at their applicable contribution rates and that the employer's contributions will be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on the Plan's investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate – The following presents the net pension liability of SJRPP, calculated using a discount rate of 6.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

	2019	2018
1% decrease	**$ 22,759**	$ 33,976
Current discount rate	**4,001**	16,523
1% increase	**(11,781)**	1,896

(Dollars in Thousands)

12. Pension Plans (continued)

Changes in the net pension liability are detailed below.

	2018	2017
Total pension liability		
Beginning balance	**$ 169,321**	$ 158,926
Service cost	**112**	1,032
Interest on the total pension liability	**11,163**	10,768
Difference between expected and actual experience	**(1,784)**	10,826
Changes in assumptions	**15,782**	26
Benefit payments	**(19,928)**	(12,257)
Ending balance	**174,666**	169,321
Plan fiduciary net postion		
Beginning balance	**152,798**	142,286
Employer contributions	**26,409**	8,039
Employee contributions	**232**	625
Pension plan net investment income (loss)	**11,499**	14,571
Benefit payments	**(19,928)**	(12,257)
Administrative expense	**(345)**	(466)
Ending balance	**170,665**	152,798
Net pension liability	**$ 4,001**	$ 16,523

Plan Assets – Cash balances are amounts on deposit with the SJRPP Plan's trust bank, as well as amounts held in various money market funds as authorized in the Investment Policy Statement (Policy). All investments shall comply with the Policy as approved by the Pension Committee, and with the fiduciary standards set forth by the Employee Retirement Income Security Act and requirements set forth by the Florida Statutes. The trust bank balances are collateralized and subject to the Florida Security for Public Deposits Act of Chapter 280, Florida Statutes.

The Plan follows GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*. Investments are presented at fair value, which is based on available or equivalent market values. The money market mutual fund is a 2a-7 fund registered with the SEC and, therefore is presented at actual pooled share price, which approximates fair value.

(Dollars in Thousands)

12. Pension Plans (continued)

At September 30, 2018, the SJRPP Plan's cash and cash equivalents consist of the following:

Cash on hand	$	7
Cash equivalents:		
Wells Fargo Treasury Plus Money Market Account		10,785
Total cash and cash equivalents	$	10,792

The Policy specifies investment objectives and guidelines for the SJRPP Plan's investment portfolio and provides asset allocation targets for various asset classes.

At September 30, 2018, investments controlled by the SJRPP Plan that represent 5% or more of the SJRPP Plan's net position were the Alliance Domestic Passive Collective Trust with a basis of $16,670 and a fair market value of $49,516. This investment represent 29% of the fiduciary net position available for benefits.

Risk

In accordance with GASB Statement No. 40, investments also require certain disclosures regarding policies and practices with respect to the risks associated with them (see discussion in the following paragraphs).

Interest Rate Risk

Interest rate risk is the risk that changes in the market interest rates will adversely affect the fair value of an investment. Generally speaking, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. As a means of limiting its exposure to interest rate risk, the SJRPP Plan's fixed income portfolio manager monitors the duration of the fixed maturity securities portfolio as part of the strategy to manage interest rate risk. As of September 30, 2018, the average modified duration of the managed fixed securities portfolio was 4.5 years.

Credit risk

Credit risk is the risk that a security or a portfolio will lose some or all of its value due to real or perceived changes in the ability of the issuer to repay its debt. The SJRPP Plan's rated debt instruments as of September 30, 2018 were rated by Standard & Poor's and/or an equivalent nationally recognized statistical rating organization.

The fixed income managers limit their investments to securities with an investment grade rating (BBB or equivalent) and the overall weighted average composite quality rating of the managed fixed income portfolio was Aa3.

(Dollars in Thousands)

12. Pension Plans (continued)

Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the SJRPP Plan will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. All the SJRPP Plan's investments are held by the SJRPP Plan's directed trustee and custodian in the SJRPP Plan's name, or by an agent in the SJRPP Plan's name.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investments in a single issuer. The Policy specifies an overall target allocation of 55% equities and 45% fixed income, including cash. The Policy further specifies target allocations for the equity investments among several asset classes.

The fair value of the asset classes and portfolio as of September 30, 2018, and specific target allocations are as follows:

	Fair Value	Actual Percent	Target Percent
U.S. Government Securities and Agencies	$ 30,002	18%	N/A
Corporate bonds – non-convertible	29,498	17%	N/A
Money Market/Cash	10,792	6%	N/A
Total fixed income	70,292	41%	45%
S&P 500 Index Fund	49,516	29%	28%
S&P 400 Mid-Cap Index Fund	20,967	13%	11%
Small and Mid-Cap Value Fund	15,256	9%	8%
International equities	14,273	8%	8%
Total equities	$ 100,012	59%	55%
Total	$ 170,304		

The Policy allows the percentage allocation to each asset class to vary by plus or minus 5% depending upon market conditions.

For the year ended September 30, 2018, the annual money-weighted rate of return on pension plan investments was 7.37%. This reflects the changing amounts actually invested.

(Dollars in Thousands)

12. Pension Plans (continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in the exchange rates will adversely affect the fair market value of the investment or a deposit. The Plan is exposed to foreign currency risk through its investments in an international equity mutual fund. Investments in international equities are limited by the Policy's target asset allocation for that asset class. The target for international equities is 8% of the total portfolio. The international fund comprised 8% of total investments as of September 30, 2018.

Fair Value Disclosures

GASB Statement No. 72, *Fair Value Measurement and Application*, addresses accounting and financial reporting issues related to fair value measurements. It provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements.

The SJRPP Plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset or liability.

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that are accessible at the measurement date
- Level 2 – Inputs – other than quoted prices included within Level 1 – that are observable for an asset or liability, either directly or indirectly
- Level 3 – unobservable inputs for an asset or liability

The table below summarizes the SJRPP Plan's investments. Level 1 investments are valued using prices quoted in active markets for those securities. Level 2 investments are valued using direct market observations combined with quantitative pricing models to generate prices.

	Level 1	Level 2	Total
U.S. Government Securities and Agencies	$ 18,173	$ 11,829	$ 30,002
Corporate bonds - non-convertible	–	29,498	29,498
Money Market/Cash	10,792	–	10,792
Total fixed income	28,965	41,327	70,292
S&P 500 Index Fund	49,516	–	49,516
S&P 400 Mid-Cap Index Fund	20,103	864	20,967
Small and Mid-Cap Value Fund	13,281	1,975	15,256
International equities	–	14,273	14,273
Total equities	82,900	17,112	100,012
Total	$ 111,865	$ 58,439	$ 170,304

(Dollars in Thousands)

12. Pension Plans (continued)

Pension Plan Fiduciary Net Position – Detailed information about the pension plan's fiduciary net position is available in the separately issued SJRPP Pension Plan financial report.

Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to the Pension

Net Pension Liability – SJRPP's net pension liability at September 30, 2019 and September 30, 2018 was measured based on an actuarial valuation as of September 30, 2018 and September 30, 2017, respectively. SJRPP's net pension liability is $4,001 as of September 30, 2019 and $16,523 as of September 30, 2018. As discussed in note 3, St. Johns River Power Park, during fiscal year 2018, JEA assumed FPL's portion of the pension obligation in accordance with the shutdown agreement.

For the year ended September 30, 2019 and 2018, SJRPP recognized pension expense is $17,020 and $14,408, respectively. As JEA has implemented regulatory accounting for pensions, the difference between the recognized pension expense and the cash contributions paid has been deferred as a regulatory asset. See note 2, Regulatory Deferrals, for additional details.

SJRPP Plan reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

	September 30	
	2019	**2018**
Deferred outflows of resources		
Contributions subsequent to the measurement date	**$ –**	$ 26,641
Net difference between projected and actual earnings on pension plan investments	**2,045**	4,091
Differences between expected and actual experience	**1,192**	2,451
Changes in assumptions	**302**	1,055
Total	**$ 3,539**	$ 34,238
Deferred inflows of resources		
Net difference between projected and actual earnings on pension plan investments	**$ (6,166)**	$ (7,091)
Total	**$ (6,166)**	$ (7,091)

(Dollars in Thousands)

12. Pension Plans (continued)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended September 30	Recognition of Deferred Outflows (Inflows)
2020	$ 1,251
2021	(2,071)
2022	(1,379)
2023	(428)
Total	$ (2,627)

13. Other Postemployment Benefits

Plan Description

Plan administration – JEA maintains a medical benefits plan (OPEB Plan) that it makes available to its retirees. The medical plan is a single-employer, experience rated insurance contract plan that provides medical benefits to employees and eligible retirees and their beneficiaries.

JEA currently determines the eligibility, benefit provisions, and changes to those provisions applicable to eligible retirees. The OPEB Plan does not issue separate financial statements.

13. Other Postemployment Benefits (continued)

Plan membership – As of September 30, 2018 (the actuarial valuation date), the OPEB Plan membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	490
Active plan members	1,891
Total	2,381

Benefits provided – The postretirement benefit portion of the JEA benefits plan (OPEB Plan) refers to the benefits applicable to current and future retirees and their beneficiaries. These benefits consist of continued access to medical, dental, and vision benefits as well as life insurance coverage upon retirement through the plan sponsored by JEA. Premiums for the first $5,000 of coverage are being subsidized by JEA and, as such, are considered as other postemployment benefits for purposes of GASB Statement No. 75.

Contributions – Retired members pay the full premium associated with the health coverage elected. There is no direct JEA subsidy currently applicable; however, there is an implicit cost. Spouses and other dependents are also eligible for coverage and the member is responsible for payment of the applicable premiums.

Florida law prohibits JEA from separately rating retirees and active employees. Therefore, JEA assigns to both groups blended-rate premiums.

In 2008, JEA began to advance-fund the OPEB obligation. This was accomplished by establishing a separate trust into which JEA makes periodic deposits and withdrawals to reimburse operations for costs incurred on a pay-as-you-go basis.

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

Actuarial assumptions – The total OPEB liability actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation Date	September 30, 2018
Measurement Date	September 30, 2018
Methods and Assumptions Used to Determine Net OPEB Liability:	
Actuarial Cost Method	Entry Age Normal
Inflation	2.50%
Discount Rate	6.00%, the resulting Single Discount Rate based on the expected rate of return on OPEB plan investments as of September 30, 2018 at 6.00% and the long-term municipal bond rate as of September 28, 2018 at 3.83%
Salary increases	2.5% to 12.5%, including inflation; varies by years of service
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	Mortality tables used for Regular Class members in the July 1, 2018 actuarial valuation of the Florida Retirement System. They are based on the results of a statewide experience study covering the period 2008 through 2013.
Healthcare cost trend rates	Based on the Getzen Model, with trend starting at 6.75% and gradually decreasing to an ultimate trend rate of 4.57% (including the impact of the excise tax).
Aging Factors	Based on the 2013 SOA Study "Health Care Costs – From Birth to Death".
Expenses	Investment returns are net of the investment expenses; and, Administrative expenses related to the operation of the health plan are included in the premium costs.
Other Information:	
Notes	The following changes in assumptions are reflected in the schedule of changes in TOL: - Long Term Rate of Return was reduced from 7% to 6% - First year trend on premiums was reduced from 6.75% to 6.58% - Initial cost of coverage was increased from previously projected $1,045 per subscriber per month to assumed $1,077 per subscriber per month, partially offset by an increase in the first year average premium to $656 per month from expected $641 per month Health-related assumptions are based on experience over the plan year ending December 31, 2018.

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the OPEB plan's target asset allocation at the measurement date of September 30, 2018 and September 30, 2017, are summarized in the following table.

	2018		2017	
Asset Class	Target Allocation	Long-term Expected Nominal Rate of Return	Target Allocation	Long-term Expected Nominal Rate of Return
Large cap domestic equity	**34%**	**8.1%**	34%	8.0%
Global fixed income	**15%**	**4.5%**	18%	4.6%
International equity	**15%**	**8.5%**	15%	8.5%
Domestic fixed income	**15%**	**4.3%**	12%	4.3%
Small cap domestic equity	**11%**	**8.5%**	11%	8.5%
Real estate	**10%**	**7.3%**	10%	7.4%
Total	**100%**		100%	

Discount Rate – GASB Statement No. 75 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total OPEB Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As the assets are projected to be sufficient to meet benefit payments, the assumed valuation discount rate of 6.00% was used.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate – The following presents the net OPEB liability, calculated using a discount rate of 6.00%, as well as what the net OPEB liability would be if it were calculated using a rate that is 1% lower or 1% higher than the current rate:

	2019	2018
1% decrease	**$ 23,663**	$ 23,779
Current discount rate	**18,256**	18,835
1% increase	**13,708**	14,662

Healthcare Cost Trend Rate – JEA followed the Getzen model with trend rates for costs and premiums declining from 6.75% assumed for the year 2018 to the ultimate level of 4.57%.

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate – The following presents the net OPEB liability, calculated using a healthcare cost trend rate of 6.75% down to 4.57%, as well as what the net OPEB liability would be if it were calculated using a trend rate that is 1% lower or 1% higher than the current trend rate:

	2019	2018
1% decrease	**$ 13,443**	$ 14,401
Current healthcare cost trend rate	**18,256**	18,835
1% increase	**23,977**	24,098

Changes in the net OPEB liability are detailed below.

	2019	2018
Total OPEB liability		
Beginning balance	**$ 44,547**	$ 60,949
Service cost	**499**	811
Interest on the total OPEB liability	**3,044**	4,253
Changes in benefit terms	**–**	(11,556)
Difference between expected and actual experience	**(4,057)**	(7,891)
Change of assumptions	**5,794**	–
Benefit payments	**(3,122)**	(2,019)
Ending balance	**46,705**	44,547
Plan fiduciary net postion		
Beginning balance	**25,712**	21,441
Employer contributions	**4,078**	5,240
Net investment income	**1,989**	2,942
Reimbursements to employer	**(3,308)**	(3,911)
OPEB plan administrative expense	**(22)**	–
Ending balance	**28,449**	25,712
Net OPEB liability	**$ 18,256**	$ 18,835
Plan fiduciary net position as a percentage of the total OPEB liability	**60.91%**	57.72%
Covered payroll	**$156,042**	$155,326
Net OPEB liability as a percentage of covered payroll	**11.70%**	12.13%

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

Plan Assets – The assets of the plan consist of shares held in the Florida Municipal Investment Trust (FMIT), which is administered by the Florida League of Cities. The FMIT is an interlocal governmental entity created under the laws of the State of Florida and an Authorized Investment under Sec. 163.01 Florida Statutes. It is considered an external investment pool for reporting purposes. JEA owns shares in the OPEB Fund A as directed in the Master Trust Agreement. OPEB Fund A target asset allocation is 60% equities, 30% fixed income, and 10% real estate.

At September 30, 2018 and September 30, 2017, the OPEB Plan's cash and money market balance within the OPEB Fund A was $171 and $309, respectively.

Risk

In accordance with GASB Statement No. 40, investments also require certain disclosures regarding policies and practices with respect to the risks associated with them (see discussion in the following paragraphs).

Interest Rate Risk

Interest rate risk is the risk that changes in the market interest rates will adversely affect the fair value of an investment. Generally speaking, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The table below details the interest rate risk in years for investments in the trust.

	September 30, 2018		September 30, 2017	
Fixed Income Fund	**Modified Duration**	**Weighted Average Maturity**	**Modified Duration**	**Weighted Average Maturity**
FMIT Broad Market High Quality Bond Fund	**5.00**	**6.40**	4.74	6.10
FMIT Core Plus Fixed Income Fund	**2.13**	**7.00**	2.24	7.40

Credit risk

Credit risk is the risk that a security or a portfolio will lose some or all of its value due to real or perceived changes in the ability of the issuer to repay its debt. The FMIT Broad Market High Quality Bond Fund was rated by Fitch as AAf/S4 as of September 30, 2018 and September 30, 2017. The remaining funds of the trust are unrated.

Money-Weighted rates of return

The money-weighted rates of return for the fiscal years ended September 30, 2018 and September 30, 2017 were 7.54% and 13.35%, respectively.

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

Fair Value Disclosures

The table below summarizes the OPEB Plan's investments. Level 1 investments are valued using prices quoted in active markets for those securities. Level 2 investments are valued using direct market observations combined with quantitative pricing models to generate prices. JEA's investment is in shares of the FMIT OPEB Fund A. The disclosure below is based on the asset allocation provided by the FMIT of those investments held by OPEB Fund A.

	September 30, 2018			September 30, 2017		
	Level 2	**Level 3**	**Total**	**Level 2**	**Level 3**	**Total**
FMIT Core Plus Fixed Income Fund	**$ –**	**$ 4,780**	**$ 4,780**	$ –	$ 5,785	$ 5,785
FMIT Broad Market High Quality Bond Fund	**4,523**	**–**	**4,523**	3,831	–	3,831
Total fixed income	**4,523**	**4,780**	**9,303**	3,831	5,785	9,616
FMIT Russell 1000 Enhanced Index Portfolio	**–**	**–**	**–**	5,991	–	5,991
FMIT Large Cap Diversified Value Portfolio	**8,962**	**–**	**8,962**	2,160	–	2,160
FMIT International Equity Portfolio	**4,125**	**–**	**4,125**	2,674	–	2,674
FMIT Diversified Small to Mid Cap Equity Portfolio	**3,243**	**–**	**3,243**	2,905	–	2,905
FMIT Core Real Estate Portfolio	**–**	**2,646**	**2,646**	–	–	–
FMIT High Quality Growth Portfolio	**–**	**–**	**–**	2,057	–	2,057
Total equities	**16,330**	**2,646**	**18,976**	15,787	–	15,787
Total	**$ 20,853**	**$ 7,426**	**$ 28,279**	$ 19,618	$ 5,785	$ 25,403

OPEB Liabilities, OPEB Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to the OPEB

Net OPEB Liability – JEA's net OPEB liability at September 30, 2019 and September 30, 2018 was measured based on an actuarial valuation as of and with the measurement dates of September 30, 2018 and September 30, 2017, respectively. JEA's net OPEB liability is $18,256 as of September 30, 2019 and $18,835 as of September 30, 2018.

For the year ended September 30, 2019 and 2018, JEA recognized OPEB expense is $652 and ($9,272), respectively. As JEA has implemented regulatory accounting for OPEB, the difference between the recognized OPEB expense and the cash contributions paid has been deferred as a regulatory asset. See note 2, Regulatory Deferrals, for additional details.

(Dollars in Thousands)

13. Other Postemployment Benefits (continued)

The JEA Plan recorded deferred outflows of resources and deferred inflows of resources related to OPEB as detailed in the table below.

	September 30 2019	September 30 2018
Deferred outflows of resources		
Change of assumptions	**$ 5,197**	$ –
Contributions subsequent to the measurement date	**3,903**	4,078
Total	**$ 9,100**	$ 4,078
Deferred inflows of resources		
Differences between expected and actual experience	**$ (9,952)**	$ (7,102)
Net difference between projected and actual earnings on pension plan investments	**(1,297)**	(1,610)
Total	**$ (11,249)**	$ (8,712)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended September 30	**Recognition of Deferred Outflows (Inflows)**
2020	$ 2,816
2021	(1,086)
2022	(921)
2023	(643)
2024	(610)
Thereafter	(1,705)
Total	$ (2,149)

(Dollars in Thousands)

14. Fair Value Measurements

GASB Statement No. 72, *Fair Value Measurement and Application*, addresses accounting and financial reporting issues related to fair value measurements. It provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. For JEA, this statement applies to certain investments, interest rate swap agreements, and natural gas cash flow hedges.

JEA categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset or liability.

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date
- Level 2 – Inputs – other than quoted prices included within Level 1 – that are observable for an asset or liability, either directly or indirectly
- Level 3 – unobservable inputs for an asset or liability

Investments

JEA's investments are summarized in the table below. Level 1 investments are valued using prices quoted in active markets for those securities. Level 2 investments are valued using direct market observations combined with quantitative pricing models to generate prices. Money market mutual funds are managed to meet the requirements of Rule 2a-7 under the Investment Company Act of 1940, as amended, and are recorded at net asset value (NAV). The local government investment pools transact with participants at a stable NAV and are recorded at NAV. Certain U.S. Treasury and government agency securities and commercial paper are measured at cost.

	2019		
	Total	**Level 1**	**Level 2**
Investments by fair value level			
U.S. Treasury and government agency securities	$ 184,525	$ 2,006	$ 182,519
State and local government securities	183,116	–	183,116
Total investments by fair value level	367,641	2,006	365,635
Investments measured at NAV			
Local government investment pools	188,130		
Money market mutual funds	126,452		
Total investments measured at NAV	314,582		
Investments measured at cost			
Commercial paper	44,266		
Total investments measured at cost	44,266		
Total investments per statement of net position	$ 726,489		

(Dollars in Thousands)

14. Fair Value Measurements (continued)

	2018		
	Total	Level 1	Level 2
Investments by fair value level			
U.S. Treasury and government agency securities	$ 453,060	$ 453,060	$ –
State and local government securities	223,845	–	223,845
Total investments by fair value level	676,905	453,060	223,845
Investments measured at NAV			
Local government investment pools	194,786		
Money market mutual funds	23,208		
Total investments measured at NAV	217,994		
Investments measured at cost			
Commercial paper	133,074		
U.S. Treasury and government agency securities	9,837		
Total investments measured at cost	142,911		
Total investments per statement of net position	$ 1,037,810		

Interest Rate Swap Agreements

JEA's interest rate swap agreements are valued using market rates as of September 30, 2019 and 2018 and standard cash flow present valuing techniques, which places them at Level 2 in the fair value hierarchy. The agreements are recorded at fair value as part of long-term debt in the statements of net position. The fair value of the interest rate swap agreements is detailed below.

	2019	2018
Electric	$ (118,621)	$ (70,103)
Water and Sewer	(31,266)	(16,253)
Total	$ (149,887)	$ (86,356)

Natural Gas Cash Flow Hedges

JEA's natural gas cash flow hedges consisted of swap agreements for either a 3-month or 12-month period, covering calendar years 2018 through December 2022. These hedges were valued using prices observed on commodities exchanges and/or using industry-standard valuation techniques, such as option modeling or discounted cash flows techniques, incorporating both observable and unobservable valuation inputs, which placed them at Level 3 in the fair value hierarchy. The fair market value changes in the hedges were recorded on a net basis in the statements of net position as either a deferred charge or a deferred credit until such time that the transactions end. At September 30, 2019, deferred charges of $11,598 were included in deferred outflows of resources and, at September 30, 2018, deferred credits of $2,536 were included in deferred inflows of resources on the statements of net position.

15. Commitments and Contingent Liabilities

Grants

JEA participates in various federal and state assisted grant programs that are subject to review and audit by the grantor agencies. Entitlements to these resources are generally conditional upon compliance with the terms and conditions of grant agreements and applicable federal and state regulations, including the expenditure of resources for allowable purposes. Any disallowance resulting from a federal or state audit may become a liability of JEA. It is management's opinion that the results of these audits will have no material adverse effect on JEA's financial position or results of operations.

Regulatory Initiatives

The electric industry and water and wastewater industry have been and will continue to be affected by a number of legislative and regulatory initiatives. The following summarizes the key regulations affecting JEA:

Electric Enterprise System – On August 3, 2015, the Environmental Protection Agency (EPA) issued concurrently three separate rules pertaining to emissions of carbon dioxide (CO2) fossil fuel-fired electric generating units (EGUs):

- The Final Clean Power Plan (CPP), applicable to existing fossil fuel-fired electric EGUs.
- The Final Carbon Pollution Standards Rule (CPS), applicable to new, modified and reconstructed fossil fuel-fired EGUs.
- The Proposed Federal Plan applicable to states that fail to submit an approvable plan that achieves CPP goals.

On February 9, 2016, the United States Supreme Court (SCOTUS) issued an order staying implementation of the CPP. The SCOTUS granted the applications of numerous parties to stay the CPP pending judicial review of the rule. On March 28, 2017, President Trump issued an Executive Order establishing a national policy "in favor of energy independence, economic growth, and the rule of law". The President has directed agencies to review existing regulations that potentially burden the development of domestic energy resources, and appropriately suspend, revise, or rescind regulations that unduly burden the development of U.S. energy resources beyond what is necessary to protect the public interest or otherwise comply with the law. The Executive Order specifically directed EPA to review and, if appropriate, initiate reconsideration proceedings to suspend, revise or rescind the new EPA Final Rules pertaining to CO^2 emissions. EPA initially obtained temporary court orders to hold the court challenge of the CPP and the CPS in abeyance, pending the completion of EPA's review of the rules. EPA subsequently petitioned the court to pause the litigation indefinitely while EPA promulgates new rules.

15. Commitments and Contingent Liabilities (continued)

On August 30, 2018, EPA a proposed rule to replace the CPP. The proposed rule is titled the Affordable and Clean Energy (ACE) Rule. ACE proposes new Existing Source Performance Standards (ESPS) to regulate CO2 emissions from fossil-fueled boilers. The ACE standards are significantly less stringent than the CPP standards. ACE also proposes to simplify and remove considerable ambiguity from EPA's New Source Review (NSR) rules applicable to major improvements to generating units. EPA has also promulgated but not issued proposed New Source Performance Standards (NSPS) for fossil-fueled units. Provisions of ACE are anticipated to be complied with without significant capital expenditure and do not represent significant cost exposure for JEA. Similarly, since JEA is not presently anticipating construction of any electric generation units that would be impacted by a new NSPS, the pending rule likewise does not represent significant cost exposure for JEA. Because these rules are either proposed or pending issuance, it is difficult to know when or if the rules will become "final" and enforceable. For this reason, JEA is unable, at this time, to definitively ascertain the impact to JEA to come from prospective regulation of CO2 emissions.

On July 6, 2011, the EPA released the Cross-State Air Pollution Rule (CSAPR), which is intended as a substitute for the invalidated Clean Air Interstate Rule (CAIR). In the CSAPR, the EPA determined that 27 states in the eastern United States are in violation of the Clean Air Act, because they significantly contribute to nonattainment or interference with the maintenance of attainment of three National Ambient Air Quality Standards (NAAQS) in one or more downwind states. The three air quality standards addressed in the CSAPR are the 1997 and 2006 fine particulate matter ($PM_{2.5}$), NAAQS, and the 1997 ozone NAAQS. To address these violations, the CSAPR imposes Federal Implementation Plans (FIPs) that establish state budgets for SO2 and NOx emissions from EGUs. The EPA targeted these two pollutants, because they are precursors to the formation of $PM_{2.5}$ and ozone in the atmosphere. The budgets are allocated to individual EGUs in the form of allowances and the CSAPR permits limited interstate emissions trading and unlimited intrastate emissions trading as a means of compliance. States became subject to the emission budgets in 2012 with more stringent limits taking effect in 2014. In April 2014, the SCOTUS upheld the rule, but remanded back certain legal issues to the DCA to address. On July 28, 2015, the DCA issued an order and opinion remanding, without vacatur, certain state budgets under the CSAPR for reconsideration by the EPA, including the ozone-season NOx emissions budget for Florida. On September 7, 2016, the EPA issued a final updated CSAPR rule that removed Florida and two other eastern states from the rule. However, the EPA has made known that it is in the early stages of developing a supplemental rule (CSAPR Update II) to address the 2015 ozone and $PM_{2.5}$ NAAQS. It is possible that the CSAPR Update II may mandate deeper emission reductions and an expansion of the geographic area for regulation, possibly to again include Florida. The EPA has not established a rulemaking schedule for the CSAPR Update II. Consequently, JEA is not able to estimate any impacts from the CSAPR Update II.

On December 21, 2011, the EPA issued its Mercury and Air Toxics Standards (MATS) rule, setting forth maximum achievable control technology (MACT) standards for coal and oil generating stations. The new standards regulate four categories of hazardous air pollutants (HAPS) emitted by coal- or oil-fired EGUs, namely mercury, HAP metals, acid gases, and organic HAP.

The compliance deadline for affected sources to have all necessary pollution controls installed was April 2015. JEA's units that are regulated under MATS comply with all rule requirements.

15. Commitments and Contingent Liabilities (continued)

In April 2015, the EPA finalized rules to regulate the disposal and management of coal combustion residuals (CCRs), meaning fly ash, bottom ash, boiler slag, and flue gas desulfurization materials, destined for disposal from coal-fired power plants. The new rule became effective on October 19, 2015 and established technical requirements for surface impoundments and landfills. The rule requires protective controls, such as liners and groundwater monitoring, at landfills and surface impoundments that store CCRs. The rule, as adopted by the EPA, is enforced only by citizen-initiated lawsuits, rather than by the EPA. However, with passage of the WIIN Act in 2016, the rule can now be reformed to provide the following: 1) conversion from a “self-implementing” program to a permit program the states or EPA would have primary responsibility to administer and enforce; and, 2) flexibility for state programs to adjust and tailor federal CCR requirements to meet local, case-specific situations, so long as they are adequately protective of federal CCR requirements. Multiple federal rulemaking proceedings are underway, many of which are subject to litigation. The state has started the process to incorporate the rule and regulations, which ultimately may constitute a permitting or tailored program.

The rule applies to CCR management practices at SJRPP and Scherer. The rule does not apply to management of byproducts at Northside Generating Station (NGS) as long as it continues to burn a fuel mix with less than 50% coal. The currently operating cell within Area B of SJRPP does not have to be lined, but must comply with the operating and monitoring requirements of the rule even after the plant was decommissioned in 2018. SJRPP’s two closed byproduct storage areas (Areas I and II) are not affected by this rule. SJRPP has no regulated surface impoundments. Existing surface impoundments, like that at Scherer, are required to meet increased and more restrictive technical and operating criteria or close. Georgia Power has decided to close the surface impoundment at Scherer instead of pursuing a retrofit and the timeline for closure activities is currently projected to run through 2030.

The EPA left in place the Bevill exemption for beneficial uses of CCRs in which CCRs are recycled as components of products instead of placed in impoundments or landfills. Large quantities of CCRs are used today in concrete, cement, wallboard, and other contained applications that should not involve any exposure by the public to unsafe contaminants.

On November 22, 2010, the EPA entered into a settlement agreement with Riverkeeper, Inc. regarding rule-making dates for the EPA to set technology standards for cooling water intake systems for existing facilities under Section 316(b) of the Federal Clean Water Act. Section 316(b) requires that standards for the location, design, construction and capacity of cooling water intake systems reflect the best technology available for minimizing adverse environmental impacts. The EPA announced proposed standards for cooling water intake systems on March 28, 2011. Under the proposal, existing facilities are required to conduct studies to help their respective permitting authorities determine whether and what site-specific controls, if any, would be required to reduce the number of aquatic organisms that are captured in cooling water intake systems.

15. Commitments and Contingent Liabilities (continued)

With few changes to the proposed rule, the EPA published the final rule in the Federal Register in August 2015. The new standards will not affect any JEA facilities other than NGS. NGS is one of more than 1,260 existing facilities that use large volumes of cooling water from lakes, rivers, estuaries, or oceans to cool their plants. The new standards will likely require upgrades to the system, varying from establishment of existing facilities as the Best Technology Available (BTA) to improvements to the existing screening facilities or installation of cooling towers. A full two-year biological study is required to evaluate site-specific conditions and form a basis for assessing BTA and was initiated in 2018. Estimated final compliance deadlines are not expected until after 2025 and will depend on the level of upgrade ultimately required. Accordingly, costs of compliance have not been determined for NGS and are not included in JEA's capital program for the Electric System.

On September 30, 2016, the EPA issued the Effluent Limitation Guidelines for Steam Electric Power Plants. In setting the new and more stringent standards, the EPA evaluated the technologies and costs to remove metals and other parameters from individual wastewater streams generated by steam electric power plants and identify the BAT to affect their control. The new requirements for existing power plants must be phased in as soon as possible on or after November 1, 2018, but no later than December 31, 2023. The costs of compliance at NGS and Scherer have been evaluated and are anticipated in operating budgets and in JEA's five-year capital program for the Electric System.

Water Supply System Regulatory Initiatives – JEA was issued a 20-year Consumptive Use Permit (CUP) in May 2011 from the St. Johns River Water Management District (SJRWMD), which allows for aquifer withdrawals sufficient to completely satisfy customer demands until 2031 if certain permit conditions are met. JEA evaluates its total water management plan annually to continuously understand changes in demand and how to balance investments in a three-part program: (1) continued expansion of the reuse system, (2) measured conservation program and (3) water transfers from areas with a higher supply on JEA's north grid to areas with a lower supply on JEA's south grid via river-crossing pipelines. In North Florida, the Suwannee River Water Management District (SRWMD), Florida Department of Environmental Protection (FDEP), and the SJRWMD have set or are setting/revising Minimum Flows and Levels (MFLs) for water bodies in the region. MFLs are intended to assess the potential for ecological resource risks from water withdrawals and ensure sustainable supplies. In 2015, MFLs were adopted in the SRWMD and a determination required a recovery strategy. By permit, JEA will participate to the extent of its proportionate impact in prevention and recovery strategies that may be developed to ensure the groundwater resource remains sustainable.

15. Commitments and Contingent Liabilities (continued)

Wastewater Treatment System Regulatory Initiatives – The Sewer System is regulated by the EPA under provisions of the Federal Clean Water Act and the Federal Water Pollution Act. In Florida, the EPA has delegated the wastewater regulatory program to FDEP. The FDEP has implemented a Total Maximum Daily Load regulation (TMDL) defining the mass of nitrogen and phosphorus that can be assimilated by the St. Johns River, to which 8 of JEA's 11 wastewater treatment plants discharge. This state rule limits the amount of nitrogen and phosphorus that these eight wastewater treatment facilities are allowed to discharge by permit. JEA is meeting these limits as the result of past capital improvements to its wastewater facilities, expansion of the reclaimed water system, and phase-out of smaller old technology wastewater facilities. By virtue of exceeding its own regulatory obligation, JEA has generated nutrient reduction credits and has assisted the City in meeting a portion of their Municipal Separate Storm System nutrient requirements by transferring 33.44 short tons per year. This was recognized in JEA's annual contribution agreement negotiated in 2016. In 2013, both the FDEP and EPA reaffirmed the site-specific nutrient standard that is codified in the Lower St. Johns River TMDL.

Pollution Remediation Obligations

JEA is subject to numerous federal, state, and local environmental regulations resulting in environmental liabilities due to compliance costs associated with new regulatory initiatives, enforcement actions, legal actions, and contaminated site assessment and remediation. Based on an analysis of the cost of cleanup and other identified environmental contingencies, JEA has accrued a liability associated with the remediation efforts. In accordance with GASB No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, based on project estimates and probabilities, the liability is estimated to be $26,123 at September 30, 2019. The accrual is related to the following environmental matters: Kennedy Generating Station RCRA Corrective Action for former wood preserving site; SJRPP Area B Landfill; Sans Souci Substation remedial activities; Pearl Street Electric Shop remedial activities; WSSC PCB Issue, Northside Generating Station RCRA Corrective Action program; and remediation at a number of miscellaneous petroleum sites. Of the $26,123 that JEA has accrued as environmental liabilities, approximately $15,795 is associated with the expected cost of remediating the former wood preserving facility at the Kennedy Generating Facility. Following are other environmental matters that could have an impact on JEA; however, the resolution of these matters is uncertain and no accurate prediction of range of loss is possible at this time: Pickettville Road Landfill CERCLA site post-closure activities and the Ellis Road CERCLA site. Although uncertainties associated with these recognized environmental liabilities remain, JEA believes that the current provision for such costs is adequate and additional costs, if any, will not have a material adverse effect upon its financial position, results of operations, or liquidity. Costs associated with these obligations that were expensed prior to the approval of regulatory accounting for environmental projects are recorded in other noncurrent liabilities and total $16,568. The remaining liability is recognized as part of revenues to be used for future costs.

15. Commitments and Contingent Liabilities (continued)

Northside Generating Station Byproduct

JEA Northside Generating Station (NGS) Units 1 and 2 produce byproducts that consist of fly ash and bed ash. JEA has obtained a permit from FDEP to beneficially use the processed byproduct material in the State of Florida, subject to certain restrictions. These ash products are processed into materials marketed as EZBase and EZSorb. The expansion of rail capacity, the ability to load rail cars directly from the storage silos, and direct leasing of railcars has enabled JEA to become a full-service marketer, delivering products by truck or rail. EZSorb is currently being transported by truck and rail to leachate solidification and environmental remediation/stabilization projects in several southeastern states.

The Byproducts Storage Area is an FDEP permitted, Class I lined storage facility at NGS. JEA received a new 20-year permit effective May 4, 2015.

A case is pending in the Second Judicial Circuit in Harrison County, Mississippi. Plaintiff is suing multiple defendants seeking damages allegedly resulting from construction defects at The Promenade, a retail shopping mall in D'Iberville, Mississippi. Plaintiff amended the complaint in April 2010 to add JEA as a defendant on various product liability theories, claiming that JEA's ash byproduct was allegedly incorporated as a component of the product of another party defendant and used by other party defendants at the subject project. Plaintiff seeks injunctive relief, to remediate the site, and damages. Multiple third party claims and cross claims were raised and remain pending. JEA believes it has good and meritorious defenses in this action and will vigorously defend the case. The plaintiff is seeking approximately $75,000; however, the trial court ruled that JEA is entitled to a sovereign immunity cap of $500. The issue was argued in the Mississippi Supreme Court in January 2019. In June 2019, the U.S. Supreme Court reversed a long-standing precedent with respect to the ability of one state's courts to exercise jurisdiction over another state. The same week, the Mississippi Supreme Court dismissed Promenade's damages cap appeal and remanded the case to the trial court for consideration of JEA's jurisdiction defense in light of the U.S. Supreme Court's 2019 decision. The trial court is expected to rule on whether it has any jurisdiction over JEA late this year.

New Headquarters Building Lease

On July 11, 2019, JEA signed a 15-year building lease for a new headquarters building with the option to renew the lease for three consecutive renewal terms of 5 years each. The groundbreaking is expected to take place in the first quarter of calendar year 2020 and work is expected to continue through fall 2021, barring any delays due to inclement weather or other unforeseen factors. The costs to finance and build the new building will be paid for by the lessor and the lease term will commence once construction is complete. The annual lease payment for the initial year is estimated to be approximately $6,527 and will increase by 2.50% each year thereafter.

In additional to the annual rent, JEA will also pay an additional rental related to operating expenses for operation, maintenance, management, and repair of the building. This amount will vary each year, but will be no more than 105% of the preceding year's operating expenses. The initial year's estimate of additional rental is $1,829.

15. Commitments and Contingent Liabilities (continued)

General Litigation

JEA is party to various pending or threatened legal actions in connection with its normal operations. In the opinion of management, any ultimate liabilities that may arise from these actions are not expected to materially affect JEA's financial position, results of operations, or liquidity.

16. Storm Costs

Hurricane Matthew tracked parallel along the coast of Florida on October 7, 2016 and Hurricane Irma passed to the west of Jacksonville as a tropical storm on September 11, 2017, causing extensive damage within the JEA service territory. Damage to JEA property was primarily to the transmission and distribution systems. Because of the extensive damage, Jacksonville was declared a federal major disaster area, making JEA eligible to receive reimbursement from FEMA. Requests for Public Assistance for both declared disasters were filed and accepted.

JEA is in the midst of the cost reimbursement process through FEMA, which allows cost share of 87.5% of eligible cost (75.0% from FEMA and 12.5% from the State of Florida) of those costs not covered by insurance. As a result, $41,233 of the eligible costs were deferred as costs to be recovered from future revenues in the statement of net position with the 12.5%, or $4,000, being recognized in the maintenance and other operating expenses financial statement line item in the statement of revenues, expenses and changes in net position in fiscal year 2017. Through September 30, 2019, JEA has received $25,550, which reduced the deferred costs to be recovered from future revenues. Of the $25,550 received, $18,500 was from insurance and $7,050 from FEMA. JEA believes it is probable that reimbursement from FEMA will be received for the eligible cost incurred that is remaining.

17. Segment Information

The financial statements of JEA contain four segments, as the Electric System and Bulk Power Supply System, the SJRPP System, the Water and Sewer System, and DES represent separate identifiable activities. These systems have debt outstanding with a revenue stream pledged in support of the debt. In addition, the activities are required to be accounted for separately. JEA's Electric System and Bulk Power Supply System segment consists of an electric utility engaged in the generation, purchase, transmission, distribution, and sale of electricity primarily in Northeast Florida. JEA's SJRPP System segment consists of a generation facility that is 80% owned by JEA, which is currently in the process of being decommissioned as discussed in note 2, St. Johns River Power Park. JEA's Water and Sewer System segment consists of water collection, distribution, and wastewater treatment in Northeast Florida. The DES consists of chilled water activities.

(Dollars in Thousands)

17. Segment Information (continued)

Intercompany billing is employed between the Electric System, the Water and Sewer System, and DES and includes purchases of electricity, water, sewer, and chilled water services and the rental of inventory and buildings. The utility charges between entities are based on a commercial customer rate. All intercompany billings are eliminated in the financial statements. See intercompany charges detailed below.

	2019			**2018**		
	Electric	**W&S**	**DES**	**Electric**	**W&S**	**DES**
Electricity services	**N/A**	**$ 13,368**	**$ 3,324**	N/A	$ 13,422	$ 3,282
Water and sewer services	**382**	**N/A**	**143**	505	N/A	136
Chilled water services	**–**	**387**	**N/A**	–	408	N/A

The Electric System shares certain administrative functions with the Water and Sewer System. Generally, these costs are charged to the Electric System and the costs of these functions are allocated to the Water and Sewer System based on the benefits provided. Operating expense allocated to the Water and Sewer System was $49,238 for fiscal year 2019 and $45,869 for 2018.

In September 1999, the Water and Sewer System purchased the inventory owned by the Electric System for $32,929. This was initiated to increase the utilization of its assets between the Electric System and the Water and Sewer System. A monthly inventory carrying charge is paid by the Electric System based on the value of the inventory multiplied by one-twelfth of the prior year's Water and Sewer average cost of debt. Inventory carrying charges were $1,266 for fiscal year 2019 and $784 for 2018.

In July 1999 and July 2004, the Electric System transferred several buildings to the Water and Sewer System in the amounts of $22,940 and $6,284, respectively, an amount equal to the net book value of the assets. Monthly, the Electric System reimburses the Water and Sewer System for their equitable allocation. Annual rent paid by the Electric System to the Water and Sewer System for use of these buildings was $2,089 for fiscal year 2019 and $2,030 for 2018.

To utilize the efficiencies in the Customer Account Information billing system and reduce the administrative efforts in recording deposits, customer deposits are recorded to one Service Agreement per account. Deposits are allocated to the Electric System or Water and Sewer System based on revenues. When the deposits are credited to customer accounts, they are allocated between the service agreements.

(Dollars in Thousands)

17. Segment Information (continued)

Segment information for these activities for the fiscal years ended September 30, 2019 and 2018 was as follows:

	Electric System and Bulk Power Supply System		SJRPP System		Water and Sewer		DES	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Condensed statements of net position								
Total current assets	**$ 505,398**	$ 603,965	**$ 79,029**	$ 70,352	**$ 180,121**	$ 196,938	**$ 1,727**	$ 4,396
Total noncurrent assets	**666,020**	740,394	**359,376**	358,767	**484,893**	574,441	**6,788**	3,445
Net capital assets	**2,674,310**	2,652,224	**9,734**	10,144	**2,748,123**	2,682,864	**33,277**	35,027
Deferred outflows of resources	**307,914**	241,405	**25,088**	67,596	**128,159**	125,501	**182**	194
Total assets and deferred outflows of resources	**$ 4,153,642**	$ 4,237,988	**$ 473,227**	$ 506,859	**$ 3,541,296**	$ 3,579,744	**$ 41,974**	$ 43,062
Total current liabilities	**$ 143,254**	$ 163,168	**$ 22,301**	$ 7,668	**$ 38,330**	$ 37,101	**$ 189**	$ 103
Total current liabilities payable from restricted assets	**179,078**	184,899	**70,158**	63,435	**122,622**	117,447	**2,517**	2,601
Total noncurrent liabilities	**437,000**	373,718	**10,224**	39,049	**234,883**	221,990	**29**	34
Total long-term debt	**1,972,276**	2,166,201	**266,538**	281,359	**1,424,172**	1,570,576	**33,106**	34,791
Total liabilities	**2,731,608**	2,887,986	**369,221**	391,511	**1,820,007**	1,947,114	**35,841**	37,529
Deferred inflows of resources	**242,932**	283,185	**6,166**	17,715	**51,721**	47,304	**–**	–
Net investment in (divestment of) capital assets	**773,119**	530,479	**(12,879)**	2,138	**1,490,121**	1,325,600	**(1,498)**	(1,492)
Restricted net position	**208,946**	316,700	**42,257**	26,164	**139,648**	195,319	**6,088**	2,738
Unrestricted net position	**197,037**	219,638	**68,552**	69,331	**39,799**	64,407	**1,543**	4,287
Total net position	**1,179,102**	1,066,817	**97,930**	97,633	**1,669,568**	1,585,326	**6,133**	5,533
Total liabilities, deferred inflows of resources, and net position	**$ 4,153,642**	$ 4,237,988	**$ 473,317**	$ 506,859	**$ 3,541,296**	$ 3,579,744	**$ 41,974**	$ 43,062
Condensed statements of revenues, expenses, and changes in net position information								
Total operating revenues	**$ 1,298,085**	$ 1,275,255	**$ 28,618**	$ 147,838	**$ 463,817**	$ 435,682	**$ 8,895**	$ 8,756
Depreciation	**207,427**	203,075	**410**	10,987	**152,047**	144,144	**2,429**	2,403
Other operating expenses	**816,619**	829,441	**21,628**	115,612	**182,130**	166,291	**4,703**	4,603
Operating income	**274,039**	242,739	**6,580**	21,239	**129,640**	125,247	**1,763**	1,750
Total nonoperating expenses, net	**(68,802)**	(67,484)	**(6,283)**	(18,028)	**(35,086)**	(44,079)	**(1,163)**	(1,221)
Total contributions, net	**(92,952)**	(91,472)	**–**	–	**(10,312)**	2,895	**–**	–
Total special items	**–**	–	**–**	(45,099)	**–**	–	**–**	–
Changes in net position	**112,285**	83,783	**297**	(41,888)	**84,242**	84,063	**600**	529
Net position, beginning of year	**1,066,817**	983,034	**97,633**	139,521	**1,585,326**	1,501,263	**5,533**	5,004
Net position, end of year	**$ 1,179,102**	$ 1,066,817	**$ 97,930**	$ 97,633	**$ 1,669,568**	$ 1,585,326	**$ 6,133**	$ 5,533
Condensed statements of cash flow information								
Net cash provided by operating activities	**$ 453,417**	$ 448,267	**$ 17,773**	$ 38,185	**$ 293,244**	$ 276,604	**$ 4,896**	$ 3,880
Net cash used in noncapital and related financing activities	**(92,829)**	(91,538)	**–**	–	**(39,878)**	(25,031)	**–**	–
Net cash used in capital and related financing activities	**(586,400)**	(380,568)	**(12,946)**	(193,269)	**(386,589)**	(291,037)	**(3,763)**	(4,064)
Net cash provided by (used in) investing activities	**296,653**	(30,410)	**16,812**	174,010	**163,894**	16,616	**156**	103
Net change in cash and cash equivalents	**70,841**	(54,249)	**21,639**	18,926	**30,671**	(22,848)	**1,289**	(81)
Cash and cash equivalents at beginning of year	**285,814**	340,063	**139,953**	121,027	**123,061**	145,909	**6,954**	7,035
Cash and cash equivalents at end of year	**$ 356,655**	$ 285,814	**$ 161,592**	$ 139,953	**$ 153,732**	$ 123,061	**$ 8,243**	$ 6,954

18. Subsequent Events

On October 11, 2019, JEA defeased $48,070 Electric System Subordinated Revenue Bonds and $45,425 Water and Sewer System Revenue Bonds and Subordinated Revenue Bonds. This defeasance was part of the execution of Phase 2 of the STAR plan, which was approved by the Board in December 2018, to utilize cash from the Operations Fund, Debt Management Stabilization Fund, and Renewal and Replacement Fund to defease debt.

REQUIRED SUPPLEMENTARY INFORMATION

Required Supplementary Information – Pension
(Dollars in Thousands)

City of Jacksonville General Employees Retirement Plan

Schedule of JEA's Proportionate Share of the Net Pension Liability*

Fiscal Year	Proportional Share Percentage	Net Pension Liability	Covered Payroll	Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	48.85%	$ 386,789	$ 129,922	297.71%	68.64%
2015	48.85%	404,466	128,084	315.78%	69.06%
2016	49.15%	480,353	127,440	376.92%	64.03%
2017	50.37%	541,025	126,808	426.65%	63.00%
2018	51.68%	527,680	134,443	392.49%	63.71%
2019	50.59%	562,371	135,709	414.40%	65.23%

Schedule of JEA Contributions**

Fiscal Year Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll*	Actual Contribution as a % of Covered Payroll
2009	$ 13,280	$ 13,280	–	$ 120,727	11.00%
2010	16,257	16,257	–	125,054	13.00%
2011	17,195	17,195	–	132,269	13.00%
2012	22,301	22,301	–	127,434	17.50%
2013	27,038	27,038	–	129,990	20.80%
2014	34,149	34,149	–	129,922	26.28%
2015	40,179	40,179	–	128,084	31.37%
2016	43,156	43,156	–	127,440	33.86%
2017	48,942	48,942	–	126,808	38.60%
2018	35,459	35,929	(470)	134,443	26.72%

* These schedules are presented to illustrate the requirement to share information for ten years. However, until a full ten-year trend is compiled, only available information is shown. All information is on a measurement year basis.

** All information is on measurement year basis.

Required Supplementary Information – Pension (continued)
(Dollars in Thousands)

Actuarial valuations are performed as of the beginning of the fiscal year and assumptions below pertain to all years presented unless otherwise noted.

Notes to Schedule of Contributions

Valuation date:	Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported
Methods and Assumptions Used to Determine Contribution Rates:	
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Level percent of payroll, using 1.50% (2017) and 1.14% (2016) annual increases*
Remaining amortization period	All new bases are amortized over 30 years
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.
Actual assumptions:	
Investment rate of return	7.40% (2017) and 7.50% (2016), net of pension plan investment expense, including inflation
Inflation rate	2.75%*
Projected salary increases	3.00% – 6.00%, of which 2.75% is the Plan's long-term payroll inflation assumption
Cost-of-living adjustments	Plan provisions contain a 3.00% COLA.

* The Fund's payroll inflation assumption is 2.75% as of October 1, 2016. Per Part VII, Chapter 112.64(5)(a) of *Florida Statutes*, the payroll growth assumption for amortization purposes would have decreased from 1.14% to 0.57%. However, pursuant to Chapter 112.64(5)(b), and after adjusting this analysis to account for bargained pay level increases and inclusion of DC plan participants in the total payroll, the assumption was set at 1.50%.

JEA

Required Supplementary Information – Pension
(Dollars in Thousands)

SJRPP Plan – Schedule of Changes in Net Pension Liability and Related Ratios*

	2018	2017	2016	2015	2014
Total Pension Liability					
Beginning balance	**$ 169,321**	$ 158,926	$ 155,143	$ 148,508	$ 146,521
Service cost	**112**	1,032	1,210	1,275	1,470
Interest	**11,163**	10,768	10,514	10,271	10,026
Changes in benefit terms	**–**	–	(59)	–	–
Difference between actual and expected experience	**(1,784)**	10,826	714	2,121	–
Changes in assumptions	**15,782**	26	3,730	3,316	–
Benefit payments	**(19,928)**	(12,257)	(12,326)	(10,348)	(9,509)
Total pension liability – ending	**$ 174,666**	$ 169,321	$ 158,926	$ 155,143	$ 148,508
Plan Fiduciary Net Position					
Beginning balance	**$ 152,798**	$ 142,286	$ 138,902	$ 145,425	$ 135,019
Contributions – employer	**26,409**	8,039	2,142	3,509	5,559
Contributions – employee	**232**	625	629	648	655
Net investment income (loss)	**11,499**	14,571	13,379	(266)	13,763
Benefit payments	**(19,928)**	(12,257)	(12,326)	(10,348)	(9,509)
Administrative expense	**(345)**	(466)	(440)	(66)	(62)
Plan fiduciary net position – ending	**$ 170,665**	$ 152,798	$ 142,286	$ 138,902	$ 145,425
Net Pension Liability – Ending	**$ 4,001**	$ 16,523	$ 16,640	$ 16,241	$ 3,083
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	**97.71%**	90.24%	89.53%	89.53%	97.92%
Covered Payroll	**$ 5,809**	$ 15,621	$ 15,730	$ 16,665	$ 21,304
Net Pension Liability as a Percentage of Covered Payroll	**68.88%**	105.78%	105.79%	97.46%	14.47%

* These schedules are presented to illustrate the requirement to share information for ten years. However, until a full ten-year trend is compiled, only available information is shown. All information is on a measurement year basis.

Required Supplementary Information – Pension
(Dollars in Thousands)

SJRPP Plan – Investment Returns*

Year Ended	Return
2009	7.60%
2010	10.14%
2011	0.41%
2012	17.17%
2013	12.64%
2014	10.32%
2015	-0.19%
2016	9.99%
2017	10.39%
2018	7.37%

SJRPP Plan – Schedule of Contributions*

Fiscal Year Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2009	$ 13,453	$ 13,565	$ (112)	$ 19,431	69.81%
2010	13,453	13,565	(112)	19,431	69.81%
2011	8,919	9,028	(109)	19,895	45.38%
2012	7,995	8,005	(10)	19,318	41.44%
2013	11,845	11,885	(40)	17,761	66.92%
2014	5,397	5,559	(162)	21,304	26.09%
2015	3,414	3,509	(95)	16,665	21.06%
2016	2,050	2,142	(92)	15,730	13.62%
2017	7,967	8,039	(72)	15,621	51.46%
2018	7,728	26,409	(18,681)	5,809	454.62%

* All information is on measurement year basis

Required Supplementary Information – Pension (continued)
(Dollars in Thousands)

Actuarial valuations are performed as of the beginning of the fiscal year and assumptions below pertain to all years presented unless otherwise noted.

Notes to Schedule of Contributions

Valuation date:	Actuarially determined contributions are calculated as of October 1, which is two years prior to the end of the fiscal year in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar, Closed
Remaining amortization period	1 year
Asset valuation method	Market value of assets
Inflation	2.50%
Salary increases	2.5% - 12.5% per year, including inflation
Investment rate of return	7.00% per year, compounded annually, net of investment expenses.
Retirement age	Experience-based table of rates based on year of eligibility. Rates of termination and retirement for 10/1/2017 valuation were modified to reflect retirements and separations upon the SJRPP plant closure.
Mortality	Mortality tables used for Regular Class and Special Risk Class members in the July 1, 2017 actuarial valuation of the Florida Retirement System. They are based on the results of a statewide experience study covering the period 2008 through 2013.

JEA

Required Supplementary Information – OPEB
(Dollars in Thousands)

OPEB Plan – Schedule of Changes in Net OPEB Liability and Related Ratios*

	2018	2017	2016
Total OPEB Liability			
Beginning balance	**$ 44,547**	$ 60,949	$ 62,554
Service cost	**499**	811	781
Interest on the total OPEB liability	**3,044**	4,253	4,203
Changes in benefit terms	**–**	(11,556)	–
Difference between actual and expected experience	**(4,057)**	(7,891)	–
Change of assumptions	**5,794**	–	–
Benefit payments	**(3,122)**	(2,019)	(6,589)
Total OPEB liability – ending	**$ 46,705**	$ 44,547	$ 60,949
Plan Fiduciary Net Position			
Beginning balance	**$ 25,712**	$ 21,441	$ 18,156
Employer contributions	**4,078**	5,240	5,061
Net investment income	**1,989**	2,942	2,135
Reimbursements to employer	**(3,308)**	(3,911)	(3,911)
OPEB plan administrative expense	**(22)**	–	–
Plan fiduciary net position – ending	**$ 28,449**	$ 25,712	$ 21,441
Net OPEB Liability – Ending	**$ 18,256**	$ 18,835	$ 39,508
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	**60.91%**	57.72%	35.18%
Covered Payroll	**$ 156,042**	$ 155,326	$ 150,073
Net OPEB Liability as a Percentage of Covered Payroll	**11.70%**	12.13%	26.33%

* This schedule is presented to illustrate the requirement to share information for ten years. However, until a full ten-year trend is compiled, only available information is shown. All information is on a measurement year basis.

Required Supplementary Information – OPEB
(Dollars in Thousands)

OPEB Plan – Investment Returns*

All information is on a measurement year basis.

Year Ended	Return
2009	1.44%
2010	6.74%
2011	-1.41%
2012	15.84%
2013	11.93%
2014	8.22%
2015	-0.46%
2016	7.90%
2017	13.35%
2018	7.54%

OPEB Plan – Schedule of Contributions**

Fiscal Year Ending September 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2009	$ 5,779	$ 4,023	$ 1,756	N/A	N/A
2010	5,126	5,236	(110)	138,093	3.79%
2011	5,344	6,601	(1,257)	N/A	N/A
2012	5,211	5,423	(212)	150,714	3.60%
2013	5,433	6,185	(752)	N/A	N/A
2014	4,819	4,382	437	148,617	2.95%
2015	5,011	7,255	(2,244)	N/A	N/A
2016	5,061	7,739	(2,678)	150,073	5.16%
2017	4,138	5,240	(1,102)	155,326	3.37%
2018	3,885	4,078	(193)	161,602	2.52%

* All information is on measurement year basis

** These schedules are presented to illustrate the requirement to share information for ten years. However, until a full ten-year trend is compiled, only available information is shown. All information is on a measurement year basis.

Required Supplementary Information – OPEB
(Dollars in Thousands)

Notes to Schedule of Contributions

Actuarial valuations are performed as of the beginning of the fiscal year and assumptions below pertain to all years presented unless otherwise noted.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Percentage of Payroll, Closed
Remaining amortization period	6 years
Asset valuation method	Market value
Inflation	2.50%
Salary increases	2.5% – 12.5% per year, including inflation; varies by years of service
Investment rate of return	7.00%
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	Mortality tables used for Regular Class members in the July 1, 2017 actuarial valuation of the Florida Retirement System. They are based on the results of a statewide experience study covering the period 2008 through 2013.
Healthcare cost trend rates	Based on the Getzen Model, with trend starting at 7.00% and gradually decreasing to an ultimate trend rate of 4.57% (including the impact of the excise tax).
Aging factors	Based on the 2013 SOA Study "Health Care Costs – From Birth to Death".
Expenses	Investment returns are net of the investment expenses; and, administrative expenses related to operation of the health plan are included in the premium costs.

JEA

Combining Statement of Net Position

(In Thousands)

September 30, 2019

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Total JEA
Assets							
Current assets:							
Cash and cash equivalents	$ 282,069	$ 66,734	$ –	$ 348,803	$ 64,146	$ 1,489	$ 414,438
Investments	–	2,399	–	2,399	–	–	2,399
Customer accounts receivable, net of allowance ($1,341)	171,854	–	–	171,854	54,756	238	226,848
Inventories:							
Materials and supplies	2,219	106	–	2,325	56,637	–	58,962
Fuel	30,898	–	–	30,898	–	–	30,898
Other current assets	18,358	9,790	(13,138)	15,010	4,582	–	19,592
Total current assets	505,398	79,029	(13,138)	571,289	180,121	1,727	753,137
Noncurrent assets:							
Restricted assets:							
Cash and cash equivalents	74,586	94,858	–	169,444	89,586	6,754	265,784
Investments	230,849	10,891	–	241,740	138,510	–	380,250
Accounts and interest receivable	1,053	11	–	1,064	7	–	1,071
Total restricted assets	306,488	105,760	–	412,248	228,103	6,754	647,105
Costs to be recovered from future revenues	343,247	253,706	–	596,953	254,059	34	851,046
Other assets	16,285	–	–	16,285	2,731	–	19,016
Total noncurrent assets	666,020	359,466	–	1,025,486	484,893	6,788	1,517,167
Net capital assets	2,674,310	9,734	–	2,684,044	2,748,123	33,277	5,465,444
Total assets	3,845,728	448,229	(13,138)	4,280,819	3,413,137	41,792	7,735,748
Deferred outflows of resources							
Unrealized pension contributions and losses	78,089	3,539	–	81,628	49,926	–	131,554
Unamortized deferred losses on refundings	61,773	3,502	–	65,275	43,418	182	108,875
Accumulated decrease in fair value of hedging derivatives	130,219	–	–	130,219	31,266	–	161,485
Unrealized asset retirement obligations	32,282	18,047	–	50,329	–	–	50,329
Unrealized OPEB contributions and losses	5,551	–	–	5,551	3,549	–	9,100
Total deferred outflows of resources	307,914	25,088	–	333,002	128,159	182	461,343
Total assets and deferred outflows of resources	$ 4,153,642	$ 473,317	$ (13,138)	$ 4,613,821	$ 3,541,296	$ 41,974	$ 8,197,091

JEA

Combining Statement of Net Position (continued)

(In Thousands)

September 30, 2019

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Total JEA
Liabilities							
Current liabilities:							
Accounts and accrued expenses payable	$ 42,875	$ 4,255	$ (3,600)	$ 43,530	$ 10,156	$ 141	$ 53,827
Customer deposits and prepayments	56,714	–	–	56,714	17,260	–	73,974
Billings on behalf of state and local governments	22,406	(1)	–	22,405	3,887	–	26,292
Current portion of asset retirement obligations	837	18,047	–	18,884	–	–	18,884
Compensation and benefits payable	12,236	–	–	12,236	4,944	48	17,228
City of Jacksonville payable	8,186	–	–	8,186	2,083	–	10,269
Total current liabilities	143,254	22,301	(3,600)	161,955	38,330	189	200,474
Current liabilities payable from restricted assets:							
Debt due within one year	122,380	13,780	–	136,160	54,705	1,690	192,555
Interest payable	32,109	5,564	–	37,673	26,436	666	64,775
Renewal and replacement reserve	–	46,955	–	46,955	–	–	46,955
Construction contracts and accounts payable	24,589	3,859	(3,315)	25,133	41,481	161	66,775
Total current liabilities payable from restricted assets	179,078	70,158	(3,315)	245,921	122,622	2,517	371,060
Noncurrent liabilities:							
Net pension liability	343,046	4,001	–	347,047	219,325	–	566,372
Asset retirement obligations	31,445	–	–	31,445	–	–	31,445
Net OPEB liability	11,136	–	–	11,136	7,120	–	18,256
Other liabilities	51,373	6,223	(6,223)	51,373	8,438	29	59,840
Total noncurrent liabilities	437,000	10,224	(6,223)	441,001	234,883	29	675,913
Long-term debt:							
Debt payable, less current portion	1,796,880	265,105	–	2,061,985	1,332,960	33,135	3,428,080
Unamortized premium (discount), net	56,775	1,433	–	58,208	59,946	(29)	118,125
Fair value of debt management strategy instruments	118,621	–	–	118,621	31,266	–	149,887
Total long-term debt	1,972,276	266,538	–	2,238,814	1,424,172	33,106	3,696,092
Total liabilities	2,731,608	369,221	(13,138)	3,087,691	1,820,007	35,841	4,943,539
Deferred inflows of resources							
Revenues to be used for future costs	208,794	–	–	208,794	29,896	–	238,690
Unrealized pension gains	27,276	6,166	–	33,442	17,438	–	50,880
Unrealized OPEB gains	6,862	–	–	6,862	4,387	–	11,249
Total deferred inflows of resources	242,932	6,166	–	249,098	51,721	–	300,819
Net position							
Net investment in (divestment of) capital assets	773,119	(12,879)	–	760,240	1,490,121	(1,498)	2,248,863
Restricted							
Capital projects	83,017	–	–	83,017	77,771	4,398	165,186
Debt service	121,541	14,071	–	135,612	55,761	1,690	193,063
Other purposes	4,388	28,186	3,315	35,889	6,116	–	42,005
Unrestricted	197,037	68,552	(3,315)	262,274	39,799	1,543	303,616
Total net position	1,179,102	97,930	–	1,277,032	1,669,568	6,133	2,952,733
Total liabilities, deferred inflows of resources, and net position	$ 4,153,642	$ 473,317	$ (13,138)	$ 4,613,821	$ 3,541,296	$ 41,974	$ 8,197,091

JEA

Combining Statement of Net Position
(In Thousands)

September 30, 2018

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Total JEA
Assets							
Current assets:							
Cash and cash equivalents	$ 285,611	$ 65,840	$ –	$ 351,451	$ 86,219	$ 3,536	$ 441,206
Investments	83,268	2,042	–	85,310	–	–	85,310
Customer accounts receivable, net of allowance ($1,830)	180,731	–	–	180,731	51,267	860	232,858
Inventories:							
Materials and supplies	2,189	665	–	2,854	56,350	–	59,204
Fuel	35,856	1,015	–	36,871	–	–	36,871
Other current assets	16,310	790	(1,912)	15,188	3,102	–	18,290
Total current assets	603,965	70,352	(1,912)	672,405	196,938	4,396	873,739
Noncurrent assets:							
Restricted assets:							
Cash and cash equivalents	203	74,113	–	74,316	36,842	3,418	114,576
Investments	419,536	23,330	–	442,866	288,761	–	731,627
Accounts and interest receivable	7	47	–	54	8	–	62
Total restricted assets	419,746	97,490	–	517,236	325,611	3,418	846,265
Costs to be recovered from future revenues	301,805	261,277	–	563,082	244,987	27	808,096
Other assets	18,843	–	–	18,843	3,843	–	22,686
Total noncurrent assets	740,394	358,767	–	1,099,161	574,441	3,445	1,677,047
Net capital assets	2,652,224	10,144	–	2,662,368	2,682,864	35,027	5,380,259
Total assets	3,996,583	439,263	(1,912)	4,433,934	3,454,243	42,868	7,931,045
Deferred outflows of resources							
Unrealized pension contributions and losses	83,649	34,238	–	117,887	53,480	–	171,367
Unamortized deferred losses on refundings	85,165	4,185	–	89,350	54,178	194	143,722
Accumulated decrease in fair value of hedging derivatives	70,103	–	–	70,103	16,253	–	86,356
Unrealized asset retirement obligations	–	29,173	–	29,173	–	–	29,173
Unrealized OPEB contributions and losses	2,488	–	–	2,488	1,590	–	4,078
Total deferred outflows of resources	241,405	67,596	–	309,001	125,501	194	434,696
Total assets and deferred outflows of resources	$ 4,237,988	$ 506,859	$ (1,912)	$ 4,742,935	$ 3,579,744	$ 43,062	$ 8,365,741

JEA

Combining Statement of Net Position (continued)

(In Thousands)

September 30, 2018

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Total JEA
Liabilities							
Current liabilities:							
Accounts and accrued expenses payable	$ 69,831	$ 1,021	$ (796)	$ 70,056	$ 11,636	$ 78	$ 81,770
Customer deposits and prepayments	53,738	–	–	53,738	16,475	–	70,213
Billings on behalf of state and local governments	22,295	1	–	22,296	3,674	–	25,970
Current portion of asset retirement obligations	–	6,646	–	6,646	–	–	6,646
Compensation and benefits payable	9,458	–	–	9,458	3,205	25	12,688
City of Jacksonville payable	7,846	–	–	7,846	2,111	–	9,957
Total current liabilities	163,168	7,668	(796)	170,040	37,101	103	207,244
Current liabilities payable from restricted assets:							
Debt due within one year	130,690	1,720	–	132,410	51,720	1,660	185,790
Interest payable	37,613	5,603	–	43,216	29,841	680	73,737
Renewal and replacement reserve	–	54,370	–	54,370	–	–	54,370
Construction contracts and accounts payable	16,596	1,742	(1,116)	17,222	35,886	261	53,369
Total current liabilities payable from restricted assets	184,899	63,435	(1,116)	247,218	117,447	2,601	367,266
Noncurrent liabilities:							
Net pension liability	321,885	16,523	–	338,408	205,795	–	544,203
Asset retirement obligations	–	22,526	–	22,526	–	–	22,526
Net OPEB liability	11,489	–	–	11,489	7,346	–	18,835
Other liabilities	40,344	–	–	40,344	8,849	34	49,227
Total noncurrent liabilities	373,718	39,049	–	412,767	221,990	34	634,791
Long-term debt:							
Debt payable, less current portion	2,019,350	278,885	–	2,298,235	1,480,620	34,825	3,813,680
Unamortized premium (discount), net	76,748	2,474	–	79,222	73,703	(34)	152,891
Fair value of debt management strategy instruments	70,103	–	–	70,103	16,253	–	86,356
Total long-term debt	2,166,201	281,359	–	2,447,560	1,570,576	34,791	4,052,927
Total liabilities	2,887,986	391,511	(1,912)	3,277,585	1,947,114	37,529	5,262,228
Deferred inflows of resources							
Revenues to be used for future costs	249,085	10,624	–	259,709	27,123	–	286,832
Unrealized pension gains	26,250	7,091	–	33,341	16,783	–	50,124
Unrealized OPEB gains	5,314	–	–	5,314	3,398	–	8,712
Accumulated increase in fair value of hedging derivatives	2,536	–	–	2,536	–	–	2,536
Total deferred inflows of resources	283,185	17,715	–	300,900	47,304	–	348,204
Net position							
Net investment in (divestment of) capital assets	530,479	2,138	–	532,617	1,325,600	(1,492)	1,856,725
Restricted							
Capital projects	190,132	(1,760)		188,372	141,707	1,078	331,157
Debt service	129,870	1,843		131,713	53,799	1,660	187,172
Other purposes	(3,302)	26,081	1,116	23,895	(187)	–	23,708
Unrestricted	219,638	69,331	(1,116)	287,853	64,407	4,287	356,547
Total net position	1,066,817	97,633	–	1,164,450	1,585,326	5,533	2,755,309
Total liabilities, deferred inflows of resources, and net position	$ 4,237,988	$ 506,859	$ (1,912)	$ 4,742,935	$ 3,579,744	$ 43,062	$ 8,365,741

JEA

Combining Statement of Revenues, Expenses, and Changes in Net Position
(In Thousands)

Year Ended September 30, 2019

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Eliminations	Total JEA
Operating revenues								
Electric	$ 1,274,843	$ 28,159	$ (26,495)	$ 1,276,507	$ –	$ –	$ (16,692)	$ 1,259,815
Water and sewer	–	–	–	–	450,641	–	(525)	450,116
District energy system	–	–	–	–	–	8,891	(387)	8,504
Other	23,242	459	–	23,701	13,176	4	(3,355)	33,526
Total operating revenues	1,298,085	28,618	(26,495)	1,300,208	463,817	8,895	(20,959)	1,751,961
Operating expenses								
Operations and maintenance:								
Fuel	325,659	4,669	–	330,328	–	–	–	330,328
Purchased power	161,740	–	(26,495)	135,245	–	–	–	135,245
Maintenance and other operating expenses	248,379	2,898	–	251,277	160,671	4,703	(20,959)	395,692
Depreciation	207,427	410	–	207,837	152,047	2,429	–	362,313
State utility and franchise taxes	60,767	–	–	60,767	10,802	–	–	71,569
Recognition of deferred costs and revenues, net	20,074	14,061	–	34,135	10,657	–	–	44,792
Total operating expenses	1,024,046	22,038	(26,495)	1,019,589	334,177	7,132	(20,959)	1,339,939
Operating income	274,039	6,580	–	280,619	129,640	1,763	–	412,022
Nonoperating revenues (expenses)								
Interest on debt	(99,654)	(11,311)	–	(110,965)	(62,733)	(1,348)	–	(175,046)
Investment income	21,623	4,684	–	26,307	13,282	156	–	39,745
Allowance for funds used during construction	3,973	–	–	3,973	10,097	29	–	14,099
Other nonoperating income, net	4,392	344	–	4,736	4,346	–	–	9,082
Earnings from The Energy Authority	2,412	–	–	2,412	–	–	–	2,412
Other interest, net	(1,548)	–	–	(1,548)	(78)	–	–	(1,626)
Total nonoperating expenses, net	(68,802)	(6,283)	–	(75,085)	(35,086)	(1,163)	–	(111,334)
Income before contributions	205,237	297	–	205,534	94,554	600	–	300,688
Contributions (to) from								
General Fund, City of Jacksonville, Florida	(92,952)	–	–	(92,952)	(39,850)	–	–	(132,802)
Developers and other	5,431	–	–	5,431	92,295	–	–	97,726
Reduction of plant cost through contributions	(5,431)	–	–	(5,431)	(62,757)	–	–	(68,188)
Total contributions, net	(92,952)	–	–	(92,952)	(10,312)	–	–	(103,264)
Change in net position	112,285	297	–	112,582	84,242	600	–	197,424
Net position, beginning of year	1,066,817	97,633	–	1,164,450	1,585,326	5,533	–	2,755,309
Net position, end of year	1,179,102	97,930	–	1,277,032	1,669,568	6,133	–	2,952,733

JEA

Combining Statement of Revenues, Expenses, and Changes in Net Position
(In Thousands)

Year Ended September 30, 2018

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Eliminations	Total JEA
Operating revenues								
Electric	$ 1,253,139	$ 87,749	$ (56,982)	$ 1,283,906	$ –	$ –	$ (16,704)	$ 1,267,202
Water and sewer	–	–	–	–	424,121	–	(641)	423,480
District energy system	–	–	–	–	–	8,756	(408)	8,348
Other	22,116	60,089	–	82,205	11,561	–	(2,814)	90,952
Total operating revenues	1,275,255	147,838	(56,982)	1,366,111	435,682	8,756	(20,567)	1,789,982
Operating expenses								
Operations and maintenance:								
Fuel	356,877	64,175	–	421,052	–	–	–	421,052
Purchased power	166,176	–	(56,982)	109,194	–	–	–	109,194
Maintenance and other operating expenses	245,291	52,296	–	297,587	149,646	4,603	(20,567)	431,269
Depreciation	203,075	10,987	–	214,062	144,144	2,403	–	360,609
State utility and franchise taxes	59,551	–	–	59,551	10,476	–	–	70,027
Recognition of deferred costs and revenues, net	1,546	(859)	–	687	6,169	–	–	6,856
Total operating expenses	1,032,516	126,599	(56,982)	1,102,133	310,435	7,006	(20,567)	1,399,007
Operating income	242,739	21,239	–	263,978	125,247	1,750	–	390,975
Nonoperating revenues (expenses)								
Interest on debt	(86,808)	(20,292)	–	(107,100)	(58,034)	(1,374)	–	(166,508)
Investment income	6,910	1,196	–	8,106	3,617	103	–	11,826
Allowance for funds used during construction	3,912	–	–	3,912	7,802	50	–	11,764
Other nonoperating income, net	6,025	1,068	–	7,093	2,764	–	–	9,857
Earnings from The Energy Authority	4,074	–	–	4,074	–	–	–	4,074
Other interest, net	(1,597)	–	–	(1,597)	(228)	–	–	(1,825)
Total nonoperating expenses, net	(67,484)	(18,028)	–	(85,512)	(44,079)	(1,221)	–	(130,812)
Income before contributions	175,255	3,211	–	178,466	81,168	529	–	260,163
Contributions (to) from								
General Fund, City of Jacksonville, Florida	(91,472)	–	–	(91,472)	(25,148)	–	–	(116,620)
Developers and other	1,597	–	–	1,597	80,560	–	–	82,157
Reduction of plant cost through contributions	(1,597)	–	–	(1,597)	(52,517)	–	–	(54,114)
Total contributions, net	(91,472)	–	–	(91,472)	2,895	–	–	(88,577)
Special items	–	(45,099)	–	(45,099)	–	–	–	(45,099)
Change in net position	83,783	(41,888)	–	41,895	84,063	529	–	126,487
Net position, beginning of year	983,034	139,521	–	1,122,555	1,501,263	5,004	–	2,628,822
Net position, end of year	1,066,817	97,633	–	1,164,450	1,585,326	5,533	–	2,755,309

JEA

Combining Statement of Cash Flows
(In Thousands)

Year Ended September 30, 2019

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Elimination of intercompany transactions	Total JEA
Operating activities								
Receipts from customers	$ 1,244,236	$ 22,150	$ (28,693)	$ 1,237,693	$ 449,924	$ 9,514	$ (17,604)	$ 1,679,527
Payments to suppliers	(646,113)	(4,877)	28,693	(622,297)	(104,542)	(4,028)	20,959	(709,908)
Payments to employees	(167,477)	41	–	(167,436)	(65,347)	(594)	–	(233,377)
Other operating activities	22,771	459	–	23,230	13,209	4	(3,355)	33,088
Net cash provided by operating activities	453,417	17,773	–	471,190	293,244	4,896	–	769,330
Noncapital and related financing activities								
Contribution to General Fund, City of Jacksonville, Florida	(92,829)	–	–	(92,829)	(39,878)	–	–	(132,707)
Net cash used in noncapital and related financing activities	(92,829)	–	–	(92,829)	(39,878)	–	–	(132,707)
Capital and related financing activities								
Defeasance of debt	(100,090)	–	–	(100,090)	(94,955)	–	–	(195,045)
Proceeds from issuance of debt	–	–	–	–	2,000	–	–	2,000
Acquisition and construction of capital assets	(260,413)	–	–	(260,413)	(205,559)	(758)	–	(466,730)
Repayment of debt principal	(130,690)	(1,720)	–	(132,410)	(51,720)	(1,660)	–	(185,790)
Interest paid on debt	(92,619)	(11,167)	–	(103,786)	(64,705)	(1,345)	–	(169,836)
Capital contributions	–	–	–	–	29,538	–	–	29,538
Other capital financing activities	(2,588)	(59)	–	(2,647)	(1,188)	–	–	(3,835)
Net cash used in capital and related financing activities	(586,400)	(12,946)	–	(599,346)	(386,589)	(3,763)	–	(989,698)
Investing activities								
Purchase of investments	(235,745)	(97,635)	–	(333,380)	(82,023)	–	–	(415,403)
Proceeds from sale and maturity of investments	515,390	109,768	–	625,158	237,846	–	–	863,004
Investment income	14,565	4,679	–	19,244	8,071	156	–	27,471
Distributions from The Energy Authority	2,443	–	–	2,443	–	–	–	2,443
Net cash provided by investing activities	296,653	16,812	–	313,465	163,894	156	–	477,515
Net change in cash and cash equivalents	70,841	21,639	–	92,480	30,671	1,289	–	124,440
Cash and cash equivalents at beginning of year	285,814	139,953	–	425,767	123,061	6,954	–	555,782
Cash and cash equivalents at end of year	$ 356,655	$ 161,592	$ –	$ 518,247	$ 153,732	$ 8,243	$ –	$ 680,222
Reconciliation of operating income to net cash provided by operating activities								
Operating income	$ 274,039	$ 6,580	$ –	$ 280,619	$ 129,640	$ 1,763	$ –	$ 412,022
Adjustments:								
Depreciation and amortization	207,427	410	–	207,837	153,268	2,429	–	363,534
Recognition of deferred costs and revenues, net	20,074	14,061	–	34,135	10,657	–	–	44,792
Other nonoperating income, net	171	–	–	171	1,864	–	–	2,035
Changes in noncash assets and noncash liabilities:								
Accounts receivable	8,314	(6,009)	–	2,305	(5,330)	622	–	(2,403)
Accounts receivable, restricted	7	–	–	7	1	–	–	8
Inventories	4,928	1,574	–	6,502	(287)	–	–	6,215
Other assets	2,527	–	–	2,527	(109)	–	–	2,418
Accounts and accrued expenses payable	(23,717)	(292)	–	(24,009)	1,179	87	–	(22,743)
Current liabilities payable from restricted assets	–	(5,299)	–	(5,299)	–	–	–	(5,299)
Other noncurrent liabilities and deferred inflows	(40,353)	6,748	–	(33,605)	2,361	(5)	–	(31,249)
Net cash provided by operating activities	$ 453,417	$ 17,773	$ –	$ 471,190	$ 293,244	$ 4,896	$ –	$ 769,330
Non-cash activity								
Contribution of capital assets from developers	$ 5,431	$ –	$ –	$ 5,431	$ 62,757	$ –	$ –	$ 68,188
Unrealized gains on fair value of investments	$ 7,690	$ 52	$ –	$ 7,742	$ 5,572	$ –	$ –	$ 13,314

JEA

Combining Statement of Cash Flows
(In Thousands)

Year Ended September 30, 2018

	Electric System and Bulk Power Supply System	SJRPP System	Elimination of intercompany transactions	Total Electric Enterprise Fund	Water and Sewer Enterprise Fund	District Energy System Fund	Elimination of intercompany transactions	Total JEA
Operating activities								
Receipts from customers	$ 1,249,048	$ 104,261	$ (34,089)	$ 1,319,220	$ 430,685	$ 8,446	$ (17,753)	$ 1,740,598
Payments to suppliers	(655,986)	(90,429)	34,089	(712,326)	(104,124)	(4,012)	20,567	(799,895)
Payments to employees	(160,943)	(35,736)	–	(196,679)	(61,403)	(554)	–	(258,636)
Other operating activities	16,148	60,089	–	76,237	11,446	–	(2,814)	84,869
Net cash provided by operating activities	448,267	38,185	–	486,452	276,604	3,880	–	766,936
Noncapital and related financing activities								
Contribution to General Fund, City of Jacksonville, Florida	(91,538)	–	–	(91,538)	(25,031)	–	–	(116,569)
Net cash used in noncapital and related financing activities	(91,538)	–	–	(91,538)	(25,031)	–	–	(116,569)
Capital and related financing activities								
Defeasance of debt	(405,105)	(128,280)	–	(533,385)	(460,305)	–	–	(993,690)
Proceeds from issuance of debt	383,840	–	–	383,840	437,160	–	–	821,000
Acquisition and construction of capital assets	(171,075)	–	–	(171,075)	(203,416)	(1,053)	–	(375,544)
Repayment of debt principal	(135,105)	(41,330)	–	(176,435)	(51,020)	(1,640)	–	(229,095)
Interest paid on debt	(97,134)	(16,685)	–	(113,819)	(67,659)	(1,371)	–	(182,849)
Capital contributions	–	–	–	–	28,043	–	–	28,043
Other capital financing activities	44,011	(6,974)	–	37,037	26,160	–	–	63,197
Net cash used in capital and related financing activities	(380,568)	(193,269)	–	(573,837)	(291,037)	(4,064)	–	(868,938)
Investing activities								
Purchase of investments	(506,359)	(252,593)	–	(758,952)	(279,014)	–	–	(1,037,966)
Proceeds from sale and maturity of investments	462,211	428,653	–	890,864	288,607	–	–	1,179,471
Investment income	10,225	(2,050)	–	8,175	7,023	103	–	15,301
Distributions from The Energy Authority	3,513	–	–	3,513	–	–	–	3,513
Net cash provided by (used in) investing activities	(30,410)	174,010	–	143,600	16,616	103	–	160,319
Net change in cash and cash equivalents	(54,249)	18,926	–	(35,323)	(22,848)	(81)	–	(58,252)
Cash and cash equivalents at beginning of year	340,063	121,027	–	461,090	145,909	7,035	–	614,034
Cash and cash equivalents at end of year	$ 285,814	$ 139,953	$ –	$ 425,767	$ 123,061	$ 6,954	$ –	$ 555,782
Reconciliation of operating income to net cash provided by operating activities								
Operating income	$ 242,739	$ 21,239	$ –	$ 263,978	$ 125,247	$ 1,750	$ –	$ 390,975
Adjustments:								
Depreciation and amortization	203,075	10,987	–	214,062	145,424	2,403	–	361,889
Recognition of deferred costs and revenues, net	1,546	(859)	–	687	6,169	–	–	6,856
Other nonoperating income, net	103	700	–	803	270	–	–	1,073
Changes in noncash assets and noncash liabilities:								
Accounts receivable	13,184	15,812	–	28,996	(2,200)	(310)	–	26,486
Accounts receivable, restricted	13	–	–	13	3	–	–	16
Inventories	2,136	52,297	–	54,433	(8,014)	–	–	46,419
Other assets	(3,287)	–	–	(3,287)	675	–	–	(2,612)
Accounts and accrued expenses payable	10,076	(10,441)	–	(365)	1,330	14	–	979
Current liabilities payable from restricted assets	–	(49,998)	–	(49,998)	–	–	–	(49,998)
Other noncurrent liabilities and deferred inflows	(21,318)	(1,552)	–	(22,870)	7,700	23	–	(15,147)
Net cash provided by operating activities	$ 448,267	$ 38,185	$ –	$ 486,452	$ 276,604	$ 3,880	$ –	$ 766,936
Non-cash activity								
Contribution of capital assets from developers	$ 1,597	$ –	$ –	$ 1,597	$ 52,517	$ –	$ –	$ 54,114
Unrealized gains (losses) on fair value of investments	$ (4,052)	$ 4,146	$ –	$ 94	$ (3,480)	$ –	$ –	$ (3,386)

Building a better working world

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Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Board of Directors
JEA
Jacksonville, Florida

We have audited, in accordance with auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of JEA, which comprise the statement of net position as of September 30, 2019, 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 thereon dated December 9, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered JEA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of JEA's internal control. Accordingly, we do not express 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 misstatements on a timely basis. A *material weakness* is a deficiency, or 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. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether JEA's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

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Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Ernst & Young LLP

December 9, 2019

BOND COMPLIANCE INFORMATION

JEA Electric System

Schedule of Debt Service Coverage
(In Thousands)

	Year Ended September 30 2019	Year Ended September 30 2018
Revenues		
Electric	**$ 1,235,358**	$ 1,229,625
Investment income [(1)]	**11,818**	9,525
Earnings from The Energy Authority	**2,412**	4,074
Other, net [(2)]	**23,400**	22,216
Plus: amounts paid from the rate stabilization fund into the revenue fund	**83,302**	88,415
Less: amounts paid from the revenue fund into the rate stabilization fund	**(43,817)**	(64,901)
Total revenues	**1,312,473**	1,288,954
Operating expenses [(3)]		
Fuel	**287,956**	328,160
Purchased power [(4)]	**234,793**	244,478
Maintenance and other operating expenses	**222,515**	204,982
State utility and franchise taxes	**60,767**	59,551
Total operating expenses	**806,031**	837,171
Net revenues	**$ 506,442**	$ 451,783
Debt service	**$ 81,494**	$ 71,890
Less: investment income on sinking fund	**(2,114)**	(1,436)
Less: Build America Bonds subsidy	**(1,527)**	(1,521)
Debt service requirement	**$ 77,853**	$ 68,933
Senior debt service coverage [(5)], (min 1.20x)	**6.51 x**	6.55 x
Net revenues (from above)	**$ 506,442**	$ 451,783
Debt service requirement (from above)	**$ 77,853**	$ 68,933
Plus: aggregate subordinated debt service on outstanding subordinated bonds	**104,640**	129,469
Less: Build America Bonds subsidy	**(2,002)**	(2,045)
Total debt service requirement and aggregate subordinated debt service	**$ 180,491**	$ 196,357
Senior and subordinated debt service coverage [(6)], (min 1.15x)	**2.81 x**	2.30 x

[(1)] Excludes investment income on sinking funds.

[(2)] Excludes the Build America Bonds subsidy.

[(3)] Excludes depreciation and recognition of deferred costs and revenues, net.

[(4)] In accordance with the requirements of the Electric System Resolution, all the contract debt payments from the Electric System to the SJRPP and Bulk Power Supply System with respect to the use by the Electric System of the capacity and output of the SJRPP and Bulk Power Systems are reflected as a purchased power expense on these schedules. These schedules do not include revenues of the SJRPP and Bulk Power Supply System, except that the purchased power expense is net of interest income on funds maintained under the SJRPP and Bulk Power Supply System resolutions.

[(5)] Net revenues divided by debt service requirement. Minimum annual coverage is 1.20x.

[(6)] Net revenues divided by total debt service requirement and aggregate subordinated debt service. Minimum annual coverage is 1.15x

JEA Bulk Power Supply System

Schedule of Debt Service Coverage

(In Thousands)

	Year ended September 30			
		2019		2018
Revenues				
Operating	**$**	**73,053**	$	78,302
Investment income		**190**		162
Total revenues		**73,243**		78,464
Operating expenses (1)				
Fuel		**37,703**		28,717
Maintenance and other operating expenses		**14,812**		17,545
Total operating expenses		**52,515**		46,262
Net revenues	**$**	**20,728**	$	32,202
Aggregate debt service	**$**	**10,109**	$	9,943
Less: Build America Bonds subsidy		**(624)**		(667)
Aggregate debt service	**$**	**9,485**	$	9,276
Debt service coverage (2)		**2.19 x**		3.47 x

(1) Excludes depreciation and recognition of deferred costs and revenues, net.

(2) Net revenues divided by aggregate debt service. Minimum annual coverage is 1.15x.

JEA St. Johns River Power Park System, Second Resolution

Schedule of Debt Service Coverage

(In Thousands)

	Year Ended September 30			
		2019		2018
Revenues				
Operating	**$**	**29,322**	$	34,196
Investment income		**4,633**		1,339
Total revenues		**33,955**		35,535
Operating expenses (1)		**4,669**		15,389
Net revenues	**$**	**29,286**	$	20,146
Aggregate debt service	**$**	**24,908**	$	12,925
Less: Build America Bonds subsidy		**(344)**		(367)
Aggregate debt service	**$**	**24,564**	$	12,558
Debt service coverage (2)		**1.19 x**		1.60 x

(1) Excludes depreciation and recognition of deferred costs and revenues, net.

(2) Net revenues divided by aggregate debt service. Minimum annual coverage is 1.15x.

JEA Water and Sewer System

Schedule of Debt Service Coverage

(In Thousands)

	Year Ended September 30 2019		Year Ended September 30 2018	
Revenues				
Water	**$ 178,908**		$ 171,216	
Water capacity fees	**10,477**		9,730	
Sewer	**274,505**		260,606	
Sewer capacity fees	**18,911**		18,268	
Investment income	**7,710**		7,097	
Other [1]	**15,040**		11,831	
Plus: amounts paid from the rate stabilization fund into the revenue fund	**22,327**		16,128	
Less: amounts paid from the revenue fund into the rate stabilization fund	**(25,099)**		(23,829)	
Total revenues	**502,779**		471,047	
Operating expenses [2]				
Maintenance and other operating expenses	**160,671**		149,646	
State utility and franchise taxes	**10,802**		10,476	
Total operating expenses	**171,473**		160,122	
Net revenues	**$ 331,306**		$ 310,925	
Aggregate debt service	**$ 94,693**		$ 95,818	
Less: Build America Bonds subsidy	**(2,478)**		(2,495)	
Aggregate debt service	**$ 92,215**		$ 93,323	
Senior debt service coverage [3], (min 1.25x)	**3.59**	**x**	3.33	x
Net revenues (from above)	**$ 331,306**		$ 310,925	
Aggregate debt service (from above)	**$ 92,215**		$ 93,323	
Plus: aggregate subordinated debt service on outstanding subordinated debt	**17,585**		18,084	
Total aggregate debt service and aggregate subordinated debt service	**$ 109,800**		$ 111,407	
Senior and subordinated debt service coverage excluding capacity fees [4]	**2.75**	**x**	2.54	x
Senior and subordinated debt service coverage including capacity fees [4]	**3.02**	**x**	2.79	x

[1] Excludes the Build America Bonds subsidy.

[2] Excludes depreciation and recognition of deferred costs and revenues, net.

[3] Net revenues divided by aggregate debt service. Minimum annual coverage is 1.25x.

[4] Net revenues divided by total aggregate debt service and aggregate subordinated debt service. Minimum annual coverage is either 1.00x aggregate debt service and aggregate subordinated debt service (excluding capacity charges) or the sum of 1.00x aggregate debt service and 1.20x aggregate subordinated debt service (including capacity charges).

JEA District Energy System

Schedule of Debt Service Coverage

(In Thousands)

	Year Ended September 30			
		2019		2018
Revenues				
Service revenues	**$**	**8,891**	$	8,756
Investment income		**156**		103
Plus: amounts paid from the rate stabilization fund into the revenue fund		**2,737**		-
Total revenues		**11,784**		8,859
Operating expenses (1)				
Maintenance and other operating expenses		**4,703**		4,603
Total operating expenses		**4,703**		4,603
Net revenues	**$**	**7,081**	$	4,256
Aggregate debt service (2)	**$**	**3,020**	$	3,019
Debt service coverage (3)**, (min 1.15x)**		**2.34 x**		1.41 x

(1) Excludes depreciation.

(2) On June 19, 2013, the closing date of the District Energy System Refunding Revenue Bonds, 2013 Series A, the JEA covenanted to deposit into the 2013 Series A Bonds Subaccount from Available Water and Sewer System Revenues an amount equal to the Aggregate DES Debt Service Deficiency that exists with respect to the 2013 Series A Bonds, in the event that the amount on deposit in the Debt Service Account in the Debt Service Fund in accordance with the District Energy System Resolution is less than Accrued Aggregate Debt Service as of the last business day of the then current month.

(3) Net revenues divided by aggregate debt service. Minimum annual coverage is 1.15x.

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