

# St. John's River Power Park System Employees' Retirement Plan

Actuarial Valuation as of October 1, 2020



ANNUAL EMPLOYER CONTRIBUTION  
DETERMINED BY THIS VALUATION  
IS TO BE PAID IN THE EMPLOYER FISCAL YEAR ENDING  
SEPTEMBER 30, 2022





February 4, 2021

JEA  
The SJRPP Pension Committee

Dear Committee Members:

The results of the October 1, 2020 Annual Actuarial Valuation of the St. John's River Power Park System Employees' Retirement Plan (Plan) are presented in this report.

This report was prepared at the request of the St. John's River Power Park System and Jacksonville Electric Authority (SJRPP/JEA) and is intended for use by the Plan and those designated or approved by the Plan's Administrative Committee (Committee). This report may be provided to parties other than the Plan only in its entirety and only with the permission of the Committee. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Plan's funding progress and to determine the employer contribution for the fiscal year ending September 30, 2022. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report, for purposes other than those identified above may be significantly different. Disclosures for the Plan's financial statement under the GASB Statement Nos. 67 and 68 will be developed separately.

The computed contribution amount shown on page A-1 may be considered as a minimum contribution that complies with the Plan's funding policy. Users of this report should be aware that contributions made at that level do not guarantee benefit security. Given the importance of benefit security to any retirement system, we suggest that contributions to the Plan in excess of those presented in this report be considered.

The contribution presented in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the Plan's financial condition.

The findings in this report are based on data or other information through September 30, 2020. The valuation was based upon information furnished by SJRPP/JEA concerning Plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by SJRPP/JEA.

This report was prepared using certain assumptions prescribed by the Committee and prescribed by the Florida Statutes as described in the section of this report entitled Actuarial Assumptions and Cost Method, including the assumed mortality rates in accordance with F.S. 112.63 (1)(f) as detailed in the

Actuarial Assumptions and Cost Method section. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the St. John's River Power Park System Employees' Retirement Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This report was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation.

James J. Rizzo and Piotr Krekora are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise considered in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company will be pleased to review this valuation report with the Committee and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY



James J. Rizzo, ASA, MAAA  
Senior Consultant & Actuary  
Enrolled Actuary No. 20-3355



Piotr Krekora, ASA, MAAA  
Consultant & Actuary  
Enrolled Actuary No. 20-8432



## TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
<b>A</b>	<b>EXECUTIVE SUMMARY</b>	
	1. Executive Summary	A-1
	2. Risks Associated with Measuring the Accrued Liability and Actuarially Determined Contribution	A-4
<b>B</b>	<b>VALUATION RESULTS</b>	
	1. Participant Data	B-1
	2. Actuarially Determined Contribution	B-2
	3. Normal Cost	B-3
	3. Credit Balance	B-4
	5. Actuarial Value of Benefits and Assets	B-5
	6. Financial Soundness	B-6
	7. Actuarial Gains and Losses	B-9
	8. Recent History of Valuation Results	B-12
	9. Recent History of Actuarially Determined and Actual Contributions	B-14
	10. Actuarial Assumptions and Cost Method	B-15
<b>C</b>	<b>PENSION FUND INFORMATION</b>	
	1. Summary of Assets	C-1
	2. Summary of Fund's Income and Disbursements	C-2
	3. Investment Rate of Return	C-3
<b>D</b>	<b>MISCELLANEOUS INFORMATION</b>	
	1. Reconciliation of Membership Data	D-1
	2. Statistical Data	D-2
<b>E</b>	<b>SUMMARY OF PLAN PROVISIONS</b>	E-1
<b>F</b>	<b>COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS</b>	F-1

## **SECTION A**

---

### **EXECUTIVE SUMMARY**

## EXECUTIVE SUMMARY

### Closed Plan

The Plan was closed to new entrants during the year ended September 30, 2018 in conjunction with a closure of the St Johns River Power Plant. The number of active members declined rapidly during the decommissioning process with only very few active members left employed by JEA, the power plant's owner. However, contributions are expected to be required even after the retirement of the last active member.

### Comparison of Actuarially Determined Employer Contributions

The following is a comparison of required contributions developed in this year's and the last actuarial valuations:

	For FYE 9/30/2022 Based on 10/01/20 Valuation	For FYE 9/30/2021 Based on 10/01/19 Valuation	Increase (Decrease)
Actuarially Determined Contribution	\$ 3,384,898	\$ 3,908,197	\$ (523,299)
Expected Employee Contribution	\$ 10,468	\$ 7,136	\$ 3,332
Required Employer Contribution (If Made in Equal Bi-weekly Installments)	\$ 3,374,430	\$ 3,901,061	\$ (526,631)
Credit Balance* Available at the Beginning of the Year	\$ 5,483,308	8,962,815	\$ (3,479,507)
Available Credit Balance Adjusted for Contribution Timing	\$ 5,654,135	9,242,043	\$ (3,587,908)
Minimum Cash Contribution After Application of Credit Balance	\$ 0	\$ 0	\$ 0

*\*Comments regarding the Credit Balance can be found on pages A-2 and B-4.*

### Actuarially Determined Contribution

As presented in the preceding table, the contribution necessary for the fiscal year ending September 30, 2022 to support the current benefits for the St. John's River Power Park System Employees' Retirement Plan under the current funding objectives is \$3,381,406, down from \$3,901,061 for the fiscal year ending September 30, 2021. Please note that the Employer Contribution for the 2022 fiscal year is developed *assuming* it would be deposited in bi-weekly intervals throughout the year.

This contribution was determined under a current practice of amortizing all of the expected Unfunded Actuarial Accrued Liability within one year.



## **Credit Balance**

As directed by the representative of the Retirement Committee, a credit balance was established following a significant contribution made during fiscal year 2018 in excess of the required minimum. Under this approach, any excess contributions made by the employer are set aside to create a reserve that can be used to pay future contributions (referred to as "Credit Balance"). Any time there is a positive Credit Balance, amounts from that reserve can be applied toward payment of the employer's portion of the Actuarially Determined Contribution effectively lowering demand for cash from the employer's resources. As a trade-off, funds allocated to the Credit Balance cannot be recognized as assets in determination of the Unfunded Actuarial Accrued Liability used in developing the Actuarially Determined Contribution.

Employer contributions made during the year ending September 30, 2020 totaled \$13,307,093. After application of the September 30, 2019 Credit Balance of \$12,205,496, this amount was more than sufficient to fully satisfy the Actuarially Determined Contribution for the year in the amount of \$17,167,965 (developed in the valuation as of October 1, 2018). As a result, the September 30, 2020 Credit Balance ending value is \$8,962,815. A numerical illustration can be found on page B-4. Based on current projections, this amount is sufficient to fully satisfy employer contributions for years ending September 2021 and 2022.

## **Contribution Volatility**

The Required Employer Contribution is moderately lower than determined in the previous valuation. In absence of a different funding policy in place, all emerging experience and changes in assumptions will have immediate impact on the contribution requirements with a potential for dramatic changes from one year to the next.

## **Recommendations**

For long-term planning purposes, it is recommended that the Committee (or JEA management) continues the process of designing a new funding policy, tailored around the long-term financial goals of the Plan Sponsor (SJRPP/JEA). The discussion should include scheduling periodic review of actuarial assumptions and methods used in the future valuations.

In order to adopt a new funding policy, the Committee may require input concerning actuarial risk management issues (simulations, stress-testing, asset smoothing, amortization policy, etc.)

## **Revisions in Benefits**

There have been no revisions in benefits.

## **Revisions in Actuarial Assumptions and Methods**

There have been no revisions in assumptions and methods.





## **One Plan**

The Summary of Plan Provisions (Section E) describes two tiers of benefits. Some employees are entitled only to a monthly pension benefit, some are entitled only to a cash balance benefit, and others are entitled to both a frozen pension benefit and a cash balance benefit.

All assets of this Plan are intended to be available for the payment of all types of benefits. Plan assets constitute an undivided whole, without any allocation of assets to different employee groups or to different benefit structures. While this Plan has two different benefit structures, it is one plan.

## **Actuarial Experience**

Actuarial gains occur in a year whenever the experience of the Plan is more favorable than was assumed. Conversely, there is an actuarial loss when the experience is worse than assumed. SJRPP plan experienced a loss during the year ending September 30, 2020 primarily due to less than favorable investment experience. The Plan's rate of return on the Actuarial Value of Assets (Market Value – Credit Balance) was 4.8%, falling short of the 6.0% return assumption. In addition, the demographic experience and data adjustments contributed to an actuarial loss.

## **Change in Employer Contribution**

Although there was a net actuarial loss this year, the Net Employer Contribution developed in this valuation is lower than the amount determined as of October 1, 2019 for the current fiscal year. This reduction was caused by a decrease in the loss amount.

The remainder of this Report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

## **RISKS ASSOCIATED WITH THE MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION**

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Asset/Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example, if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise, if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The contribution rate shown on page A-1 may be considered as a minimum contribution rate that complies with the Plan's funding policy, state statute, city ordinance, etc. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.



## **PLAN MATURITY MEASURES**

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Ratio of the market value of assets to total payroll	1.0*	1.0*	1.0
Ratio of actuarial accrued liability to payroll	1.0*	1.0*	1.1
Ratio of actives to retirees and beneficiaries	0.0	0.0	0.0
Ratio of net cash flow to market value of assets	0.1%	-8.2%	3.7%
Duration of the present value of future benefits	9.7	9.9	10.4

*\*For purposes of these measurements, we used a rough estimate of the total payroll for all JEA employees of \$171,600,000.*

### **RATIO OF MARKET VALUE OF ASSETS TO PAYROLL**

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

### **RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL**

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

### **RATIO OF ACTIVES TO RETIREES AND BENEFICIARIES**

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

### **RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS**

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.



### **DURATION OF PRESENT VALUE OF FUTURE BENEFITS**

The duration of the present value of future benefits may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the present value of future benefits would increase approximately 10% if the assumed rate of return were lowered 1%.

### **ADDITIONAL RISK ASSESSMENT**

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

## **SECTION B**

---

### **VALUATION RESULTS**

<b>PARTICIPANT DATA</b>		
	<b>October 1, 2020</b>	<b>October 1, 2019</b>
<b>ACTIVE MEMBERS</b>		
Number	5	5
Covered Annual Payroll	\$ 467,042	\$ 452,525
Average Annual Pay	\$ 93,408	\$ 90,505
Average Age	59.2	58.2
Average Past Service	26.3	25.3
Average Age at Hire	32.9	32.9
<b>RETIREES &amp; BENEFICIARIES</b>		
Number	385	382
Annual Benefits	\$ 12,897,395	\$ 12,856,518
Average Annual Benefit	\$ 33,500	\$ 33,656
Average Age	68.9	68.0
<b>TERMINATED VESTED MEMBERS</b>		
Number	74	80
Annual Benefits	\$ 510,602	\$ 473,277
Average Annual Benefit	\$ 6,900	\$ 5,916
Average Age	51.3	51.1



<b>ACTUARIALLY DETERMINED CONTRIBUTION (ADC)</b>		
A. Valuation Date	October 1, 2020	October 1, 2019
B. ADC to Be Paid During Fiscal Year Ending	9/30/2022	9/30/2021
C. Assumed Date(s) of Employer Contribution(s)	Bi-Weekly	Bi-Weekly
D. Actuarially Determined Contribution (ADC)		
1. Total Normal Cost as of the Valuation Date	\$ 110,131	\$ 132,675
2. Amount as of the Valuation Date to Amortize Unfunded Actuarial Liability by 10/1/2020	2,986,691	3,442,910
3. Interest Through Contribution Dates	<u>288,076</u>	<u>332,612</u>
4. Total ADC as of the Contribution Dates	3,384,898	3,908,197
5. Estimated Employee Contributions made as of the Contribution Dates	<u>(10,468)</u>	<u>(7,136)</u>
6. Net Employer Contribution	\$ 3,374,430	\$ 3,901,061
7. Net Contribution as % of Expected Covered Payroll	1,289.46 %	2,186.63 %
E. Expected Covered Payroll for the Contribution Year	261,694	178,405



CALCULATION OF NORMAL COST		
A. Valuation Date	October 1, 2020	October 1, 2019
B. Total (Employer/Employee) Normal Cost as of the Valuation Date for:		
1. Active Members' Benefits		
a. Service Retirement Benefits	\$ 19,023	\$ 18,874
b. Termination Benefits	1,849	1,807
c. Disability Benefits	328	325
d. Preretirement Death Benefits	442	448
f. Total	<u>21,642</u>	<u>21,454</u>
2. Administrative Expenses	<u>88,489</u>	<u>111,221</u>
3. Total (Employer/Employee) Normal Cost as of the Valuation Date	110,131	132,675

Derivation of Amortization Payment for the Contribution Year	
1. UAAL As of October 1, 2020	\$ 6,677,681
2. Normal Cost	110,131
Expected Employee Contributions	(10,468)
Employer Normal Cost	99,663
3. Expected Employer Contribution*	3,901,061
4. Interest at the assumed rate:	
a. on 1 for one year	400,661
b. on 2 for one year	5,980
c. on 3 from dates paid	117,032
d. a + b - c	289,609
5. Expected UAAL at September 30, 2021 1 + 2 - 3 + 4d	3,165,892
6. Projected UAAL Discounted to the Valuation Date	2,986,691

\* Contribution determined in the October 1, 2019 Valuation for the year ending September 30, 2021 and satisfied by application of the available Credit Balance.





**CREDIT BALANCE ACCOUNT**

<b>CREDIT BALANCE ACCOUNT</b>		
A. Credit Balance for Contribution Year Ending September 30, 2020		
1. Credit Balance at October 1, 2019		\$12,205,496
2. Additions		
a) Contributions made		13,307,093
3. Deductions		
a) Credit Balance applied to ADC		
i. Actuarially Determined Contribution (ADC)	17,167,965	
ii. Amount Available	25,873,420	
iii. Credit Balance applied to ADC, lesser of i and ii	17,167,965	
b) Waived Credit Balance	0	
c) Total Deductions		17,167,965
4. Interest		
a) Interest rate	6.0%	
b) Interest Credited		618,191
<b>5. Credit Balance at September 30, 2020 (1 + 2b - 3c + 4b)</b>		<b>\$8,962,815</b>
B. Projected Credit Balance for Contribution Year Ending September 30, 2021		
1. Credit Balance at October 1, 2020		\$8,962,815
2. Additions		
a) Excess Contributions		
i. Actuarially Determined Contribution (ADC)	3,901,061	
ii. Contributions Made	0	
iii. Excess Contributions Made (ii - i), not less than 0	0	
b) Total Additions		0
3. Deductions		
a) Credit Balance applied to ADC		
i. Actuarially Determined Contribution (ADC)	3,901,061	
ii. Amount Available (adjusted for interest)	9,242,043	
iii. Credit Balance applied to ADC, lesser of i and ii	3,901,061	
b) Waived Credit Balance	0	
c) Total Deductions		3,901,061
4. Interest		
a) Interest rate	6.0%	
b) Interest Credited (Charged)		421,554
<b>5. Credit Balance at September 30, 2021 (1 + 2b - 3c + 4b)</b>		<b>\$5,483,308</b>

**ACTUARIAL VALUE OF BENEFITS AND ASSETS**

A. Valuation Date	October 1, 2020	October 1, 2019
B. Actuarial Present Value of All Projected Benefits for		
1. Active Members		
a. Service Retirement Benefits	\$ 2,967,920	\$2,867,197
b. Termination Benefits	6,607	7,392
c. Disability Benefits	10,018	10,516
d. Preretirement Death Benefits	12,987	13,444
f. Total	2,997,532	2,898,549
2. Inactive Members		
a. Retirees & Beneficiaries	159,497,263	161,791,703
c. Terminated Vested Members	5,333,247	5,260,099
d. Total	164,830,510	167,051,802
3. Total for All Members	167,828,042	169,950,351
C. Actuarial Accrued (Past Service) Liability	167,694,945	169,806,566
D. Actuarial Value of Accumulated Plan Benefits per FASB No. 35	167,661,738	169,770,137
E. Plan Assets		
1. Market Value	169,980,079	162,012,613
2. Credit Balance	8,962,815	12,205,496
3. Actuarial Value (1 -2)	161,017,264	149,807,117
F. Unfunded Actuarial Accrued Liability (C-E3)	6,677,681	19,999,449
G. Actuarial Present Value of Projected Covered Payroll	2,012,241	2,081,728
H. Actuarial Present Value of Projected Member Contributions	80,490	83,269

## FINANCIAL SOUNDNESS

The purpose of this Section of the Report is to provide certain measures which indicate the financial soundness of the program. These measures relate to short term solvency and long-term solvency.

The various percentages listed in this Section as of a single valuation date are not significant by themselves. What is significant, however, is the trend of the rates over a period of years. It is also important to keep in mind that each time benefits or assumptions are revised; the value of actuarial liabilities are created or diminished. Any newly created liabilities are financed systematically over a period of future years. All actuarially computed values in this analysis are based on the actuarial assumptions utilized in the respective years' actuarial valuations.

### **Short Term Solvency**

The ultimate test of financial soundness is the program's ability to pay all promised benefits when due. The program's progress in accumulating assets to pay all promised benefits can be measured by comparing the market value of assets with:

1. The actuarial present value of projected benefits payable to those already receiving benefits and to vested terminations, and
2. The actuarial present value of accrued benefits payable to active participants. This amount is based on benefits earned to date without future credited service or salary increases.

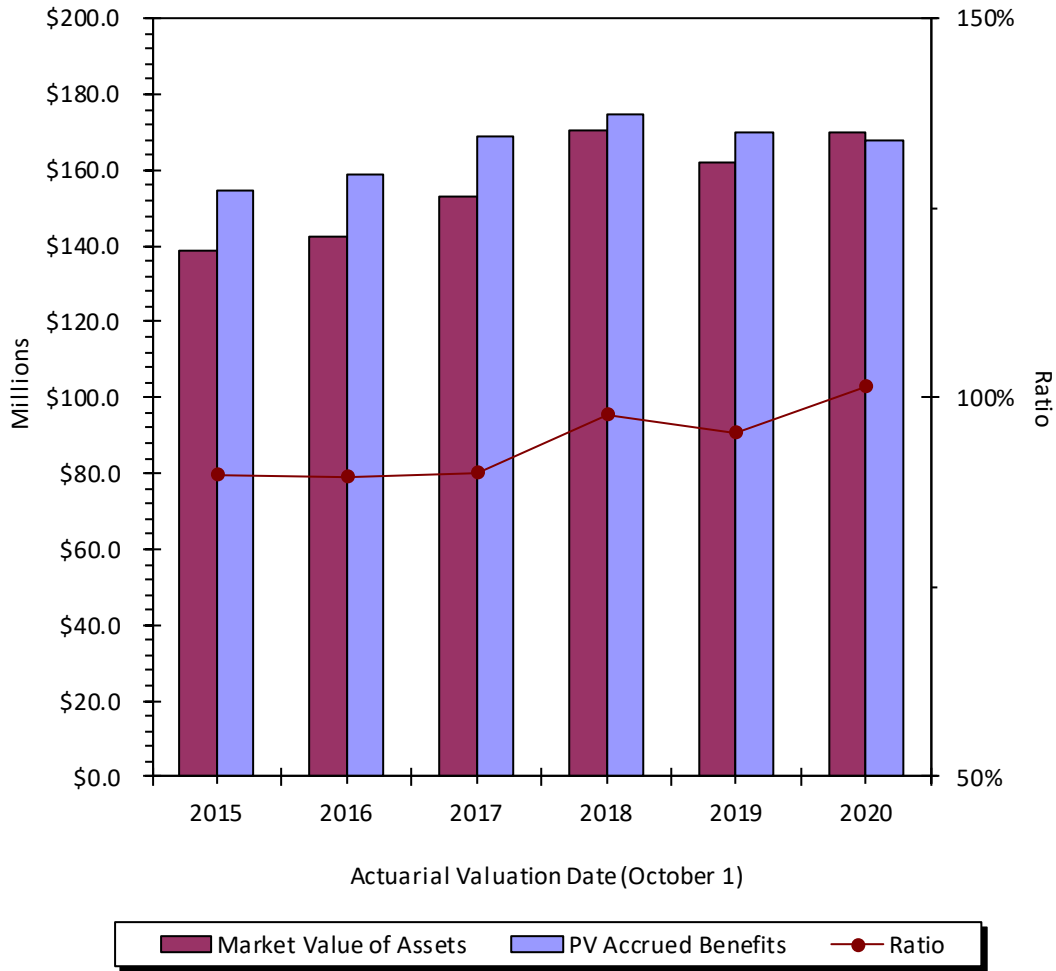
The total of the two items should generally be fully covered by assets. That portion of the total of the two items covered by assets should increase over time assuming an ongoing plan. Often assets continue to grow beyond the actuarial present value of these two items.

Retroactive increases in benefits will, of course, adversely affect the trend in the years when such increases are first reflected in the actuarial values. Although different actuarial assumptions would be used in the event of a termination of the program, this test shows how much of the benefits accrued to date might be covered by assets in the event of a Plan freeze using the valuation assumptions.

	<b>Power Park System Employees</b>		
	<b>10/1/2020</b>	<b>10/01/19</b>	<b>10/01/18</b>
1. Accumulated Contributions of Active Members	\$ 271,771	\$ 253,066	\$ 215,473
2. APV of Projected Benefits in Pay Status and for Vested Terminations	164,830,510	167,051,802	172,030,404
3. APV of Accrued Benefits for Active Participants (Employer Portion)	<u>2,559,457</u>	<u>2,465,269</u>	<u>2,353,114</u>
4. Total	167,661,738	169,770,137	174,598,991
5. Market Value of Assets	169,980,079	162,012,613	170,664,780
6. Assets as % of Total	101 %	95 %	98 %



## Ratio of Market Value of Assets to Present Value of Accrued Benefits

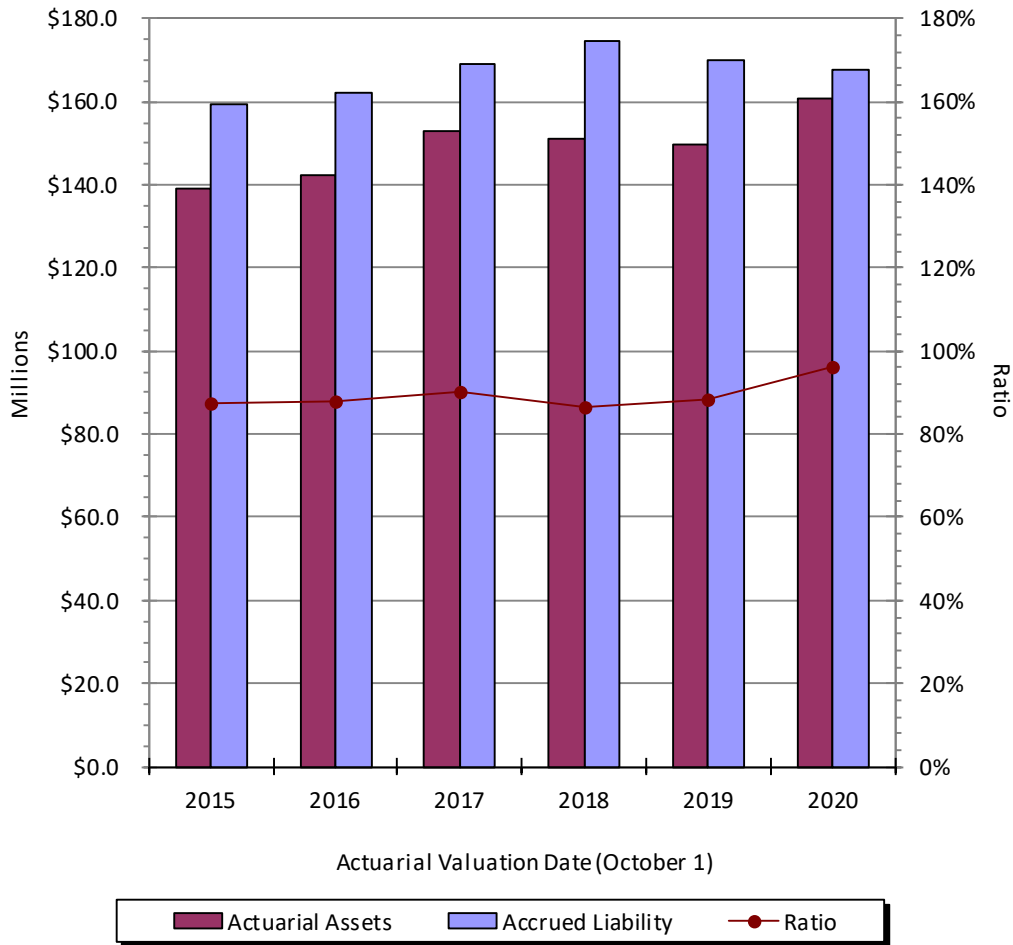


### Long Term Solvency

Over the longer term, the solvency of an ongoing Plan can be measured by comparing the Actuarial Value of Assets to an amount known as the Actuarial Accrued Liability (AAL) under the Entry Age Actuarial Cost Method. This item has often been called the "past service liability". Its derivation differs from the short-term solvency value derivation in several ways. The short-term solvency liability number is based on the benefits accrued to date by the participants while the long-term solvency liability number is based on the normal costs accrued to date by the employer. As in the case of the short-term solvency values, the AAL is affected immediately by any revisions in benefits or assumptions. The accumulation of assets to equal or exceed the AAL can be considered a long-range funding goal.

Valuation Date	Actuarial Value of Assets (in Thousands)	Actuarial Accrued Liability (in Thousands)	% of AAL Covered by Assets
10/1/09	\$ 73,884	\$ 113,512	65 %
10/1/10	91,975	120,940	76
10/1/11	96,511	143,203	67
10/1/12	115,815	140,281	83
10/1/13	135,019	146,521	92
10/1/14	145,425	150,494	97
10/1/15	138,902	159,261	87
10/1/16	142,285	162,029	88
10/1/17	152,798	169,321	90
10/1/18	150,970	174,666	86
10/1/19	149,807	169,807	88
10/1/20	161,017	167,695	96

### Ratio of Actuarial Value of Assets to Actuarial Accrued Liability



## ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long-term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

Derivation of Experience Gain (Loss)		
1.	Last Year's UAAL	\$ 19,999,449
2.	Last Year's Normal Cost	132,675
	Last Year's Expected Employee Contributions	7,136
	Last Year's Employer Normal Cost	125,539
3.	Last Year's Actual Employer Contribution	17,167,965
4.	Interest at the assumed rate:	
	a. on 1 for one year	1,199,967
	b. on 2 for one year	7,532
	c. on 3 from dates paid	515,039
	d. a + b - c	692,460
5.	This Year's Expected UAAL	
	1 + 2 - 3 + 4d	3,649,483
6.	This Year's Actual UAAL (before any changes in benefits or assumptions)	6,677,681
7.	Net Actuarial Gain (Loss): (5) - (6)	(3,028,198)

Gain (Loss) by Source		
1.	Gain (Loss) due to investments	(1,847,018)
2.	Gain (Loss) due to other sources	(1,181,180)
3.	Total Gain (Loss): (1) + (2)	(3,028,198)

Net actuarial gains in previous years have been as follows:

Year Ended	Actuarial Gain (Loss)	Cumulative Gain (Loss)
9/30/2010	\$ (1,058,645)	\$
9/30/2011	(12,002,660)	(13,061,305)
9/30/2012	12,570,367	(490,938)
9/30/2013	3,388,019	2,897,081
9/30/2014	2,313,420	5,210,501
9/30/2015	(14,280,756)	(9,070,255)
9/30/2016	465,572	(8,604,683)
9/30/2017	(3,190,784)	(11,795,467)
9/30/2018	2,271,106	(9,524,361)
9/30/2019	(6,405,968)	(15,930,329)
9/30/2020	(3,028,198)	(18,958,527)

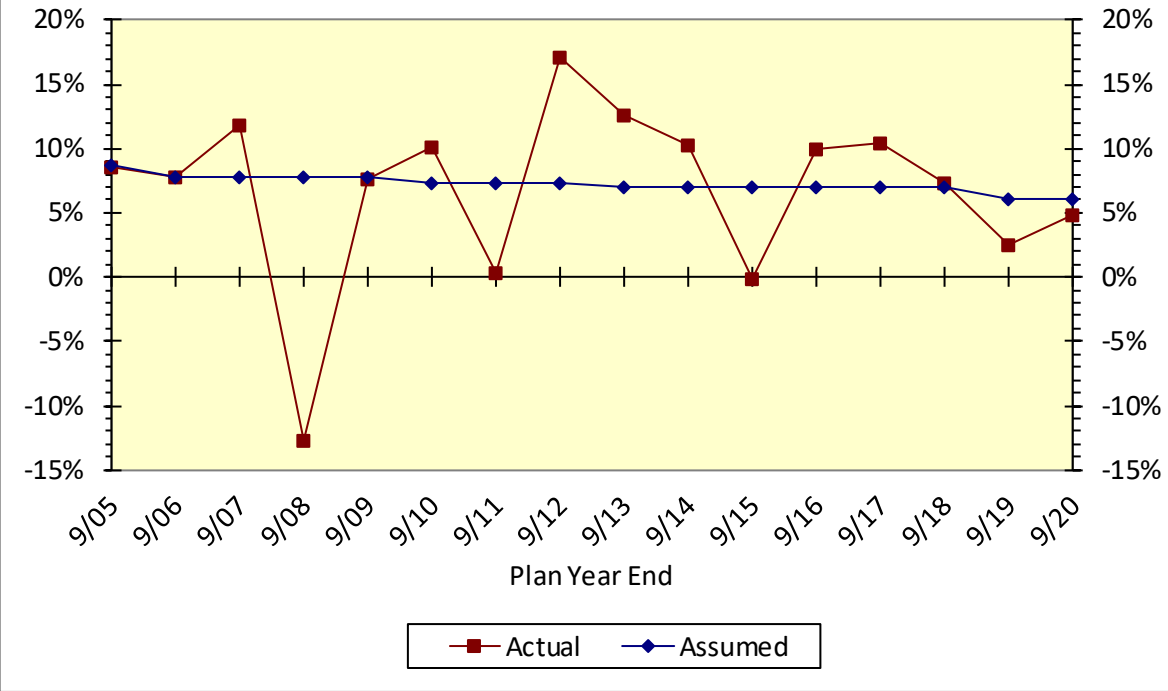
The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the history of actuarial fund earnings and salary increase rates compared to the assumed rates:

Year Ending	Actuarial Investment Return		Salary Increases	
	Actual	Assumed	Actual	Assumed
9/30/2005	8.59 %	8.75 %	2.39 %	4.02 %
9/30/2006	7.77	7.75	3.15	4.09
9/30/2007	11.89	7.75	7.08	4.29
9/30/2008	(12.67)	7.75	4.63	4.29
9/30/2009	7.60	7.75	3.62	4.38
9/30/2010	10.14	7.25	0.98	3.66
9/30/2011	0.41	7.25	3.65	3.57
9/30/2012	17.17	7.25	2.20	3.76
9/30/2013	12.64	7.00	4.90	3.79
9/30/2014	10.32	7.00	7.19	3.29
9/30/2015	(0.19)	7.00	4.47	3.38
9/30/2016	9.99	7.00	3.52	3.40
9/30/2017	10.39	7.00	2.76	3.55
9/30/2018	7.37	7.00	4.91	2.59
9/30/2019	2.48	6.00	1.93	2.59
9/30/2020	4.78	6.00	1.93	2.59
Average	6.57 %	7.22 %	3.69 %	3.58 %

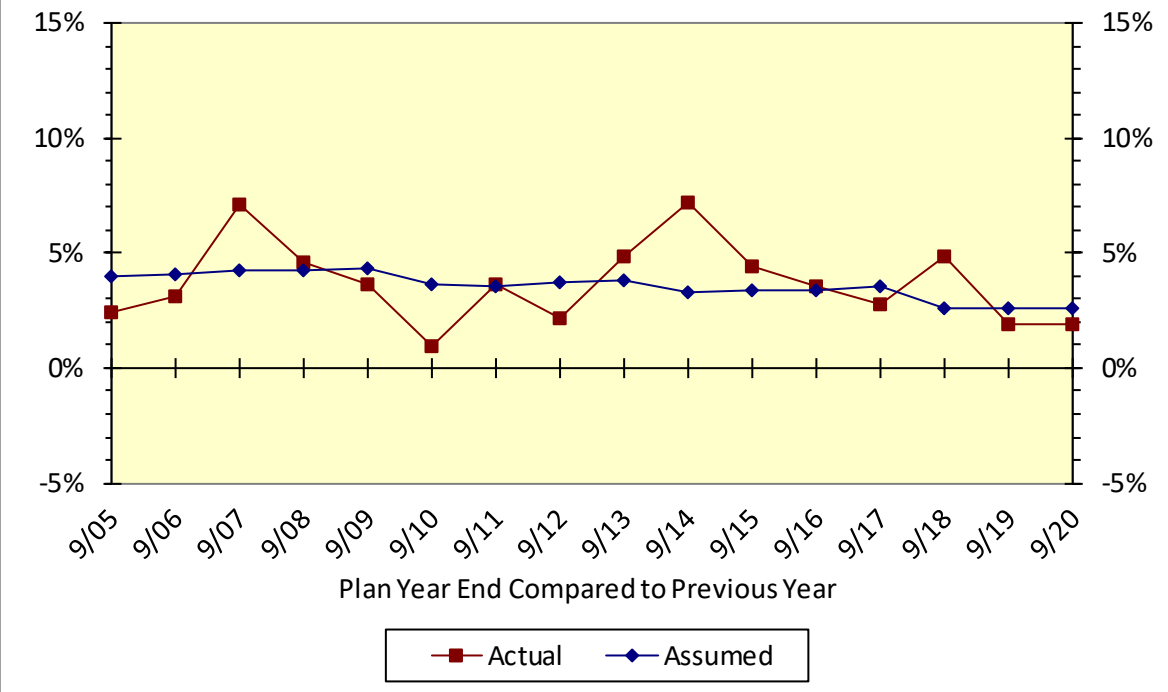
The actuarial investment return rates shown above are based on the actuarial value of assets, which has been the same as fair market value since at least 2007 (and possibly earlier). The actual salary increase rates shown above are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.



### History of Actuarial Investment Return



### History of Salary Increases

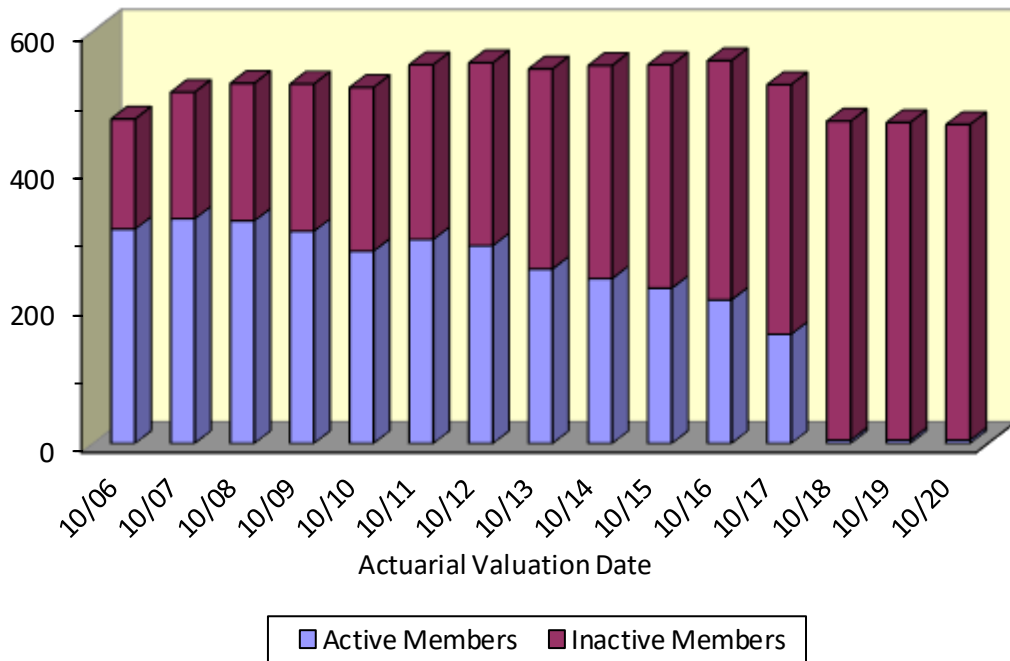




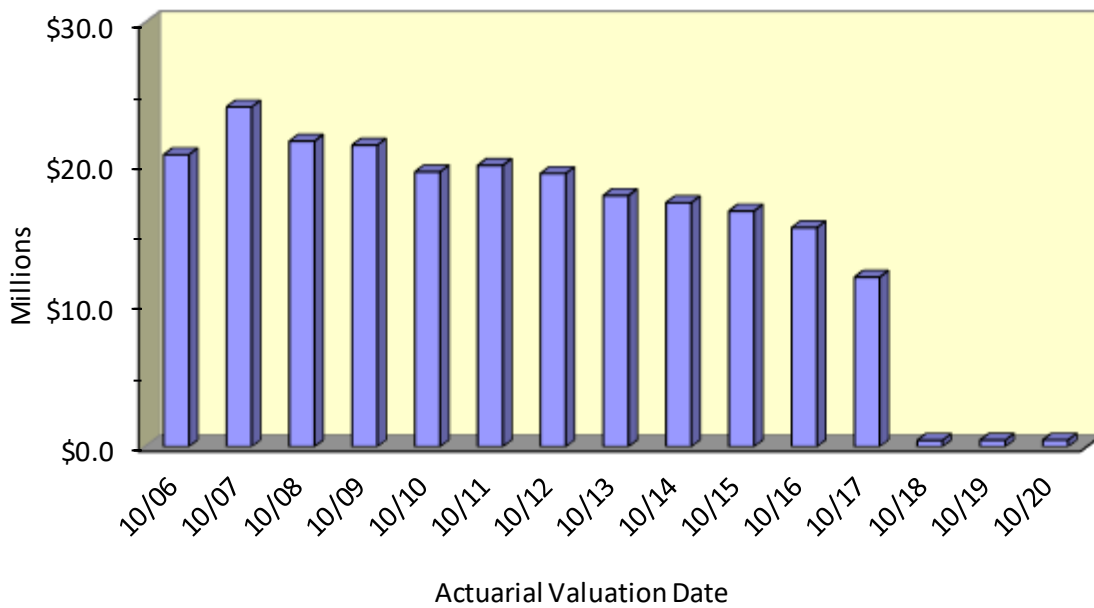
RECENT HISTORY OF VALUATION RESULTS							
Valuation Date	Number of		Reported Annual Payroll (in Thousands)	Actuarial Value of Assets (in Thousands)	UAAL (in Thousands)	Total Normal Cost	
	Active Members	Inactive Members				Amount (in Thousands)	% of Payroll
10/1/06	312	160	20,648	51,498	35,035	2,004	9.7 %
10/1/07	327	184	24,027	61,029	34,995	2,252	9.4
10/1/08	324	200	21,609	60,998	47,680	2,222	10.3
10/1/09	309	214	21,327	73,884	39,628	2,277	10.7
10/1/10	280	238	19,431	91,975	28,966	2,470	12.7
10/1/11	297	254	19,895	96,511	46,692	2,418	12.2
10/1/12	288	266	19,318	115,815	24,466	1,718	8.9
10/1/13	254	291	17,761	135,019	11,502	1,611	9.1
10/1/14	240	310	17,254	145,425	5,069	1,420	8.2
10/1/15	226	325	16,665	138,902	20,360	1,257	7.5
10/1/16	209	348	15,489	142,285	19,743	1,113	7.2
10/1/17	159	363	11,988	152,798	16,523	178	1.5
10/1/18	5	464	444	150,970	23,697	104	23.4
10/1/19	5	462	453	149,807	19,999	133	29.3
10/1/20	5	459	467	161,017	6,678	110	23.6



**Recent History of Number of Members**



**Recent History of Covered Annual Payroll**



RECENT HISTORY OF ACTUARIALLY DETERMINED AND ACTUAL CONTRIBUTIONS				
Valuation	End of Year To Which Valuation Applies	Actuarially Determined Contributions		Actual Contributions
		Employer Portion	% of Expected Payroll	
10/1/05	9/30/07	\$ 4,181,312	18.35 %	\$ 4,305,105
10/1/06	9/30/08	10,044,998	46.89	10,080,963
10/1/07	9/30/09	10,238,757	48.54	10,398,136
10/1/08	9/30/10	13,452,946	60.01	13,565,335
10/1/09	9/30/11	8,919,354	40.31	9,027,932
10/1/10	9/30/12	7,995,205	41.15	8,005,178
10/1/11	9/30/13	11,845,434	56.96	11,884,513
10/1/12	9/30/14	5,396,838	26.72	5,558,821
10/1/13	9/30/15	3,413,998	18.39	3,508,587
10/1/14	9/30/16	2,049,942	11.37	2,142,182
10/1/15	9/30/17	7,967,400	45.74	8,039,385
10/1/16	9/30/18	7,727,453	47.73	26,408,861 *
10/1/17	9/30/19	8,422,270	763.56	8,422,270 **
10/1/18	9/30/20	17,167,965	9,980.21	13,307,093 ***
10/1/19	9/30/21	3,901,061	2,186.63	TBD
10/1/20	9/30/22	3,374,430	1,289.46	TBD

\* CY 2018 contributions in excess of the Actuarially Determined Contribution of \$7,727,453 were used to establish a Credit Balance that can be used to satisfy contribution required for CY 2019.

\*\* CY 2019 contribution was fully satisfied by using a portion of the Credit Balance. As of October 1, 2019 the credit balance adjusted for interest was \$12,205,496 and was available to partially satisfy contribution requirements for CY 2020.

\*\*\* CY 2020 contribution was fully satisfied by using a portion of the Credit Balance. As of October 1, 2020 the credit balance adjusted for interest was \$8,962,815 and was available to satisfy contribution requirements for CY 2021.



### Valuation Methods

**Actuarial Cost Method** - The actuarial cost method is a procedure for allocating the actuarial present value of benefits and expenses to time periods. Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using the **Individual Entry Age Actuarial Cost Method**. The entry age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's pensionable compensation between the entry age of the member and the estimated active status exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting accrued assets from the actuarial accrued liability determines the unfunded actuarial accrued liability.

**Financing of Unfunded Actuarial Accrued Liabilities** - The unfunded actuarial accrued liability is financed as a level dollar.

A goal-oriented amortization schedule was applied in this valuation. The goal is to eliminate the expected Unfunded Actuarial Accrued Liability with a single amortization payment made during the next fiscal year.

**Actuarial Value of Assets** - The Market Value of Plan assets. Beginning with the October 1, 2018 Valuation, Actuarial Value of Assets is reduced for a value of the Credit Balance.

### Valuation Assumptions

**The actuarial assumptions used** in the valuation are shown in this Section. Several of the assumptions used in this valuation have been adopted by the SJRPP Pension Committee as recommended in the actuarial assumptions review report dated March 4, 2013. These recommendations were based on the demographic experience from 2004 through 2012 and economic forecasts available at the time the report was issued.

### Economic Assumptions

**The investment return rate** assumed in the valuation is 6.00% per year, compounded annually (net of investment expenses).

The **wage inflation rate** assumed in this valuation is 3.0% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects applicable to individuals. The **price inflation rate** assumed in this valuation is 2.5% per year.

**The rates of salary increases** (including price inflation) used in the valuation are illustrated in the following tables.

<b>Annual Rates of Salary Increase</b>	
<b>Years of Service</b>	<b>Assumed Increase</b>
0-1	12.50%
2	7.50%
3	5.50%
4	4.50%
5-6	3.50%
7-9	3.00%
10-14	2.75%
15+	2.50%

### **Demographic Assumptions**

**Rates of mortality** are the same rates used by the Florida Retirement System for its July 1, 2020 actuarial valuation. All tables listed below are PUB-2010 base tables with the generational mortality using gender-specific MP-2018 mortality improvement projection scale and 2010 as the base year.

Healthy Active Mortality (During Employment) Rates:

*Female, Non-Disabled:* Headcount Weighted General Below Median Employee Female Table

*Male, Non-Disabled:* Headcount Weighted General Below Median Employee Male Table, set back 1 year

Healthy Inactive Mortality (Post-Employment) Rates:

*Female, Non-Disabled:* Headcount Weighted General Below Median Healthy Retiree Female Table

*Male, Non-Disabled:* Headcount Weighted General Below Median Healthy Retiree Male Table, set back 1 year

Disabled Inactive Mortality Rates:

*Female, Disabled:* Headcount Weighted General Disabled Retiree Female Table, set forward 3 years

*Male, Disabled:* Headcount Weighted General Disabled Retiree Male Table, set forward 3 years

This assumption is used to measure probabilities of each benefit payment being made after retirement. Rates of model after retirement are based on tables for healthy annuitants. All deaths before retirement are assumed to be non-service connected.

**The rates of retirement** are used to measure the probability of eligible members retiring under normal retirement eligibility during the next year were as follows:



Rates of Retirement	
Year of Eligibility	Retirement Rates
0 - 0.999	20.0%
1 - 1.999	17.5%
2 - 2.999	15.0%
3 - 3.999	13.0%
4 - 4.999	11.0%
5 +	10.0%

Employees are assumed to retire no later than upon attaining age 70.

There is no separate assumption for electing Tier 1 partial lump sum distributions as these are deemed to be actuarially equivalent to underlying annuity payments. All Tier Two (cash balance accounts) benefits are assumed to be paid in a lump sum upon termination of employment.

It is also assumed that vested members with deferred benefits who are eligible for subsidized early payment reduction will commence collecting their benefits at the earliest eligibility to do so.

**Rates of separation from active membership** were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability).

Rates of Separating from Active Employment			
Service	Regardless of Age	Sample Ages	5+ Years of Service
0 - 0.999	13.00%	25	5.60%
1 - 1.999	11.00%	30	4.30%
2 - 2.999	9.00%	35	3.00%
3 - 3.999	7.00%	40	2.20%
4 - 4.999	5.00%	45	1.40%
		50	0.95%
		55	0.50%

**Rates of disability** among active members (0% of disabilities are assumed to be service-connected).

Percent Becoming Disabled Within Next Year		
Sample Ages	Men	Women
25	0.022%	0.013%
30	0.031%	0.026%
35	0.040%	0.039%
40	0.066%	0.063%
45	0.092%	0.087%
50	0.168%	0.151%
55	0.243%	0.215%



## Miscellaneous and Technical Assumptions

<b><i>Administrative &amp; Investment Expenses</i></b>	Annual administrative expenses assumption is based on the actual expenses paid during the preceding fiscal year, but reduced for one-time expenses. Investment expenses are offset against gross investment income. Assumed administrative expenses are added to the Normal Cost.
<b><i>Benefit Service</i></b>	Exact fractional service is used to determine the amount of benefit payable.
<b><i>Decrement Operation</i></b>	Decrements operate simultaneously. Disability and termination rates cease upon eligibility for normal or early retirement.
<b><i>Decrement Timing</i></b>	Decrements of all types are assumed to occur at mid-year.
<b><i>Eligibility Testing</i></b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b><i>Forfeitures</i></b>	Vested members who terminate with a benefit worth less than 100% of their own accumulated contributions were assumed to forfeit their vested benefit.
<b><i>Incidence of Contributions</i></b>	Employer contributions are assumed to be received in 12 equal monthly installments, unless otherwise specified. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<b><i>Marriage Assumption</i></b>	75% of members are assumed to be married for purposes of death-in-service benefits and retirement benefits. Male spouses are assumed to be three years older than female participants and female spouses are assumed to be three years younger than male participants for active member valuation purposes.
<b><i>Normal Form of Benefit</i></b>	The normal form of benefit is 75% Joint and Survivor Annuity.
<b><i>Pay Increase Timing</i></b>	Beginning of fiscal year. This is equivalent to assuming that reported pays represent the actual amount paid during the previous fiscal year.
<b><i>Service Credit Accruals</i></b>	It is assumed that members accrue one year of service credit per year.



## GLOSSARY OF TERMS

---

<b>Actuarial Accrued Liability</b>	Actuarial Accrued Liability is the actuarial present value of projected future benefits that are attributable to an employees' service to date. Sometimes it is expressed as the difference between the actuarial present value of all future benefit payments and the actuarial present value of future normal costs.
<b>Accrued Benefit</b>	For the Tier 1 benefits, the accrued benefit is calculated according to a formula described in the Summary of Plan Provisions using service and salary history through the valuation date. For a Tier 2 benefits, the accrued benefit is a hypothetical account balance with interest reflecting pay history through the valuation date.
<b>Accrued Service</b>	The service credited under the Plan which was rendered before the date of the actuarial valuation.
<b>Actuarial Assumptions</b>	These are factors for estimating expected future experience with respect to occurrences of mortality, disability, turnover, retirement, rates of investment income and salary increases, etc.
<b>Actuarial Cost Method</b>	This is a mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future benefit payments" between future normal costs and actuarial accrued liabilities. It is often referred to as the "Actuarial Funding Method" or "Actuarial Valuation Cost Method".
<b>Actuarial Equivalent</b>	A single amount or series of amounts of equal present value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the Plan.
<b>Actuarial Present Value</b>	Actuarial Present Value of a series of payments (or a single payment) is the amount of funds currently required to provide those payments in the future. This amount is determined by discounting future payments at predetermined rates of interest, taking into account the probability of payment. It is also referred to as "Present Value."
<b>Amortization</b>	Amortization is a process of paying off, or recognizing, an interest-discounted amount with periodic payments of interest and principal, (similar to paying off an installment loan) -- as opposed to paying it off with a single sum.
<b>Experience Gain (Loss)</b>	A measure of the difference between actual experience and expected experience based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.





<b>Normal Cost</b>	Normal Cost is the actuarial cost of a portion of projected future benefits allocated to the current year by the actuarial cost method. It is sometimes referred to as “Current Service Cost.”
<b>Reserve Account</b>	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
<b>Unfunded Actuarial Accrued Liability</b>	UAAL is the difference between actuarial accrued liability and the actuarial value of Plan assets.
<b>Valuation Assets</b>	The value of current Plan assets recognized for valuation purposes. Sometimes based on market value plus a portion of unrealized appreciation or depreciation.



## **SECTION C**

---

### **PENSION FUND INFORMATION**

<b>SUMMARY OF ASSETS</b>		
	<b>9/30/2020</b>	<b>9/30/2019</b>
<b>Cash and Securities - Market Value</b>		
Cash and Cash Equivalents	\$ 3,272,810	\$ 2,370,042
US Government Bonds & Notes	67,508,927	64,406,745
Corporate Bonds	0	0
Mortgage/Asset-Backed Securities	0	0
Common & Preferred Stocks	45,736,348	48,561,291
Equity Mutual Funds	52,926,027	45,997,485
Other Securities	0	124,565
Total	<u>169,444,112</u>	<u>161,460,128</u>
<b>Receivables and Accruals</b>		
Member Overpayments	67,754	138,311
Employer Contribution	0	0
Interest and Dividends	421,311	453,065
Due from Brokers	103,671	18,910
Total	<u>592,736</u>	<u>610,286</u>
<b>Payables</b>		
Due to Revenue Fund	1,196	0
Due to Brokers	55,573	57,801
Total	<u>56,769</u>	<u>57,801</u>
<b>Net Assets - Market Value</b>	<b>\$ 169,980,079</b>	<b>\$ 162,012,613</b>



<b>PENSION FUND INCOME AND DISBURSEMENTS</b>		
	<b>Year Ending 9/30/2020</b>	<b>Year Ending 9/30/2019</b>
<b>Market Value at Beginning of Period</b>	\$ 162,012,613	\$ 170,664,780
<b>Income</b>		
Member Contributions	18,705	90,149
Employer Contribution	13,307,093	0
Interest and Dividends	2,855,261	3,097,431
Realized and Unrealized Gain (Loss)	5,494,620	1,990,718
Total Income	21,675,679	5,178,298
<b>Disbursements</b>		
Benefit Payments (including Lump Sums)	13,150,108	13,197,971
Investment Related Expenses	471,774	478,553
Other Administrative Expenses	86,331	153,941
Total Disbursements	13,708,213	13,830,465
<b>Net Increase During Period</b>	\$ 7,967,466	\$ (8,652,167)
<b>Market Value at End of Period</b>	\$ 169,980,079	\$ 162,012,613

## INVESTMENT RATE OF RETURN

---

*The investment rate of return* has been calculated on the Market Value basis: interest, dividends, realized gains (losses) and unrealized appreciation (depreciation) divided by the beginning market value of the fund, adjusted for cash flow during the year. This figure is normally called the Total Rate of Return.

Year Ended	Investment Rate of Return Market Value Basis
9/30/05	8.59 %
9/30/06	7.77
9/30/07	11.89
9/30/08	(12.67)
9/30/09	7.60
9/30/10	10.14
9/30/11	0.41
9/30/12	17.17
9/30/13	12.64
9/30/14	10.32
9/30/15	(0.19)
9/30/16	9.99
9/30/17	10.39
9/30/18	7.37
9/30/19	2.81
9/30/20	4.86
Average Compounded Rate of Return for	
5 Years	7.04 %
All Years	6.60 %

**SECTION D**

---

**MISCELLANEOUS INFORMATION**

<b>RECONCILIATION OF MEMBERSHIP DATA*</b>		
	<b>From 10/01/19 To 10/01/20</b>	<b>From 10/01/18 To 10/01/19</b>
<b>A. Active Members</b>		
1. Number Included in Last Valuation	5	5
2. New Members Included in Current Valuation	0	0
3. Non-Vested Employment Terminations	0	0
4. Vested Employment Terminations	0	0
5. Service Retirements	0	0
6. Disability Retirements	0	0
7. Deaths	0	0
8. Lump Sums paid out	<u>0</u>	<u>0</u>
9. Number Included in This Valuation	5	5
<b>B. Terminated Vested Members</b>		
1. Number Included in Last Valuation	80	85
2. Additions from Active Members	0	0
3. Lump Sum Payments/Withdrawals	0	(1)
4. Payments Commenced	(6)	(3)
5. Deaths Resulting in New Survivor Benefits	0	(1)
6. Other	<u>0</u>	<u>0</u>
7. Number Included in This Valuation	74	80
<b>C. Service Retirees, Disability Retirees, Alt Payees &amp; Beneficiaries</b>		
1. Number Included in Last Valuation	382	379
2. Additions from Active Members	0	0
3. Additions from Terminated Vested Members	6	3
4. Deaths Resulting in No Further Payments	(3)	(3)
5. Deaths Resulting in New Survivor Benefits	(3)	(4)
6. New Survivor Benefit	3	5
7. End of Certain Period - No Further Payments	0	0
8. Other -- Data Adjustment	<u>0</u>	<u>2</u>
9. Number Included in This Valuation	385	382

**STATISTICAL DATA**

**Active Members as of October 1, 2020**

<b>Age Group</b>	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	<b>Totals</b>
Under 25	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-
45-49	-	-	-	1	-	-	-	1
50-54	-	-	-	-	-	-	-	-
55-59	-	-	-	1	-	-	1	2
60-64	-	-	-	-	-	-	-	-
65&UP	-	-	-	-	-	-	2	2
<b>TOTALS</b>	-	-	-	2	-	-	3	5



**Inactive Members as of October 1, 2020**

<b>Age Group</b>	<b>Retirees and Survivors</b>	<b>Avg. Annual Benefit</b>	<b>Terminated Vested</b>	<b>Avg. Annual Benefit</b>
Under 45	0	0	20	1,863
45-49	1	3,977	5	4,568
50-54	5	54,843	19	8,151
55-59	33	33,770	13	11,442
60-64	82	41,252	15	10,001
65-69	102	34,057	2	17,353
70-74	93	33,869	0	0
75-79	43	24,623	0	0
80-84	15	24,541	0	0
85&UP	<u>11</u>	<u>10,548</u>	<u>0</u>	<u>0</u>
TOT	385	33,615	74	7,411

**SECTION E**

---

**SUMMARY OF PLAN PROVISIONS**

**ST. JOHN'S RIVER POWER PARK SYSTEM  
EMPLOYEES' RETIREMENT PLAN**

**SUMMARY OF PLAN PROVISIONS**

**A. Governing Document**

Plan established by the St. John's River Power Park System and was most recently amended and restated pursuant to a restated plan document, adopted effective October 1, 2015, and subsequent Amendment #1 (effective October 1, 2015) and Amendment #2 (effective January 5, 2018 ), and Amendment #3 (effective January 1, 2020). The Plan is also governed by certain provisions of the Internal Revenue Code and Florida law.

**B. Effective Date**

The original effective date is October 1, 1984. More recently, the Plan was amended and restated effective October 1, 2015 and amended again effective January 1, 2020.

**C. Plan Year**

October 1 through September 30

**D. Type of Plan**

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

**E. Eligibility Requirements**

Effective as of the close of business on January 5, 2018 when the SJRPP Plant was shut down ("Shutdown Time"), the Plan was closed to new participation (including re-hires). The only current active participants are employees whose employment was transferred on or before the Shutdown Time from SJRPP to JEA and who elected to continue participating in the Plan instead of the City of Jacksonville retirement plan.

The Plan consists of two tiers of benefits. Tier One is the traditional pension tier, while Tier Two is the cash balance tier of benefits. For purposes of determining eligibility for each tier of benefits, participants in the Plan are classified as Group A, B, C, or D employees.

**Group A Employees** – A Group A employee is an employee who as of February 24, 2013 had:

- (1) reached age sixty (60) with five (5) years of service, or
- (2) attained age fifty-five (55) with twenty (20) years of service, or
- (3) completed thirty (30) years of service regardless of age.

Group A employees have Tier One Benefits. They do not have Tier Two Benefits.



**Group B Employees** – An Employee who did not meet the definition of a Group A employee but who had completed twenty (20) years of service as of February 24, 2013 and was less than fifty-five (55) years of age as of that date, is referred to as a "Group B employee." Group B employees have Tier One Benefits. However, the BACKDROP distribution option is not available to Group B employees. They do not have Tier Two Benefits.

**Group C Employees** – A Participant who had accrued Tier One Benefits in the Plan prior to February 25, 2013, but who did not meet the definition of a Group A or Group B Employee is a "Group C employee". Effective February 25, 2013, the Tier One Benefits of Group C employees were frozen. Group C Employees became eligible for Tier Two Benefits effective February 25, 2013.

**Group D Employees** – A Participant who had been newly hired or rehired on or after February 25, 2013 (and prior to the Shutdown Time) is a "Group D employee". Group D employees have Tier Two Benefits only.

#### **F. Vesting/Benefit Service**

The total number of years of employment determined as of each employment anniversary date in which a participant works at least 1000 hours. An employee may purchase service credit for years of prior service as a temporary, contract or co-op employee in which 1000 hours of employment were earned by paying an amount equal to the then applicable employee contribution rate times Earnings as of the date of purchase. An employee may also elect to purchase up to a maximum of two years of Vesting Service for time spent performing active military service.

For transferees from JEA to SJRPP who had elected to participate in this Plan, Vesting Service and Benefit Service accrued only for periods of employment with SJRPP. For transferees from SJRPP to JEA who had elected to join the City of Jacksonville retirement plan, Benefit Service, Vesting Service, and Final Average Earnings were frozen under this Plan at the date of transfer.

#### **G. Earnings**

Monthly base salary as of the last day of the month coincident with or next preceding termination of employment, excluding bonuses, overtime, expense allowances, severance pay or other extra forms of remuneration.

#### **H. Social Security Average Wages**

The average of the maximum amount of annual earnings subject to Social Security tax for the 35 years preceding the Social Security Normal Retirement Age, determined according to the table in effect at termination of employment.



## I. Final Average Earnings (FAE)

The annual average of a participant's Earnings over the highest 36 consecutive complete months out of the last 120 months of participation, or during all complete months of participation if less than 120, immediately preceding his/her retirement date, termination date, or date of death, whichever is earliest.

## J. Normal Retirement

Eligibility: A participant generally may retire on the first day of the month coincident with or next following the earlier of:

- (1) age 65 with 5 years of Vesting Service, or
- (2) age 55 with 20 years of Vesting Service, or
- (3) 30 years of Vesting Service regardless of age.

***However, any employee who was both actively employed at the Shutdown Time and at least age 55 at the Shutdown Time Became eligible to retire immediately, regardless of the accrued service without a benefit reduction.***

### Tier One

Benefit: 2.0% of FAE multiplied by years of Benefit Service not to exceed 15 years; plus 2.4% of FAE multiplied by years of Benefit Service in excess of 15 years, but not to exceed 30 years; plus 0.65% of the excess of FAE over the Social Security Average Wages multiplied by years of Benefit Service, not to exceed 35 years and reduced by 1/144 for each of the first 36 months and 1/288 for each of the next 84 months by which the Normal Retirement date precedes age 65.

### Normal Form of

Tier One Benefit: For a married participant, 75% Joint & Survivor Annuity; for an unmarried participant, annual annuity payable for life that is the actuarial equivalent of a 75% Joint & Survivor Annuity; other options are also available.

Benefits are payable bi-weekly.

COLA: For participants retired on or after October 1, 2003 and applicable to Tier One Benefits only; 1.0% annual increase each year beginning with the first benefit payment coincident with or next following the fifth anniversary of retirement.

### Tier Two

Benefit: 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 shall be credited with interest at the rate of 4% per year.

Form of Benefit: Benefits may be distributed as a lump sum, by rollover in accordance with the Internal Revenue Code, or as an annuity, at the election of the Participant.



## **K. Early Retirement**

**Eligibility:** As a result of the Plant shutdown, the concept of Early Retirement no longer applies. Prior to the Shutdown Time, a participant could elect to retire prior to becoming eligible for Normal Retirement, upon attainment of age 55 with 10, but less than 20, years of Vesting Service.

**Tier One Benefit:** All three components of the Tier One Benefit are reduced by 1/144 for each of the first 36 months and 1/288 for each of the next 84 months by which the Early Retirement date precedes age 65.

**Normal Form of**

**Tier One Benefit:** For a married participant, 75% Joint & Survivor Annuity; for an unmarried participant, annual annuity payable for life that is the actuarial equivalent of a 75% Joint & Survivor Annuity; other options are also available.

Benefits are payable bi-weekly.

**COLA:** For participants retired on or after October 1, 2003 and applicable to Tier One Benefits only; 1.0% annual increase each year beginning with the first benefit payment coincident with or next following the fifth anniversary of retirement.

**Tier Two Benefit:** Equal to the Cash Balance Account balance at time of retirement. Same Normal Form of Benefit as Tier One. Additional distribution options are available, including 100% lump sum distribution.

## **L. Delayed Retirement**

Same as Normal Retirement taking into account compensation earned and service credited until the date of actual retirement.

## **M. Disability (duty or non-duty related)**

There is no separate disability benefit under the Plan.

## **N. Death Benefit (duty or non-duty related)**

**Eligibility:** The eligible spouse of a participant who dies after the completion of 5 or more years of Vesting Service (or the participant was deemed vested as a result of the announcement of the Plan shutdown) but prior to the commencement of benefits, is eligible for survivor benefits. The beneficiary of a participant with less than 5 years of Vesting Service (and the participant was not otherwise deemed vested as a result of the Plant shutdown) will receive a refund of the participant's accumulated contributions.



**Benefit:** For a vested Active Participant who dies *prior* to his/her Earliest Retirement Age and prior to retirement, the eligible spouse's survivor benefit is determined as though the participant (i) terminated employment on the date of death, (ii) survived and worked to the participant's Earliest Retirement Age, (iii) retired at Earliest Retirement Age with a 75% Joint & Survivor Annuity, and (iv) died on the following day, but the Early Payment Reduction is applied as if the participant had reached Normal Retirement Date.

For a vested Terminated Participant who dies *prior* to his/her Earliest Retirement Age and prior to retirement, the eligible spouse's survivor benefit is determined as though the participant (i) survived to the participant's Earliest Retirement Age, (iii) retired at Earliest Retirement Age with a 75% Joint & Survivor Annuity, and (iii) died on the following day.

For a vested participant (active or terminated) who dies *after* his/her Earliest Retirement Age and prior to retirement, the eligible spouse's survivor benefit is determined as if the participant had retired with a 75% Joint & Survivor Annuity on the day before the participant's date of death.

**Benefit Payments:** Payable bi-weekly beginning on the first day of the month following or coincident with the participant's Earliest Retirement Age. The eligible spouse may elect to defer commencement of benefits.

### **Post Retirement Death**

Benefit determined by the form of benefit elected by the participant upon retirement.

### **O. Optional Forms**

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the Life Annuity option, the 10 Year Certain and Life Annuity option, or the 50%, 66 2/3% or 100% Joint and Survivor Annuity options.

Retirees also have the option of electing a partial lump sum up to 15% of the actuarial present value of their accrued benefit, with the remaining value of benefits to be paid according to one of the other annuity options elected by the retiree. Retirees who elect this option cannot elect BACKDROP.

For Tier One benefits, retirees can elect a lump-sum, if the actuarial equivalent of the accrued benefit is not greater than \$10,000.

For Tier Two benefits, retirees can elect a lump-sum.

### **P. Termination Benefit (Vesting)**

**Eligibility:** A participant has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Vesting Service, or if the participant was deemed vested. As a result of



the Plant shutdown, participants actively employed on the shutdown announcement date (March 17, 2017) were deemed full vested in their accrued benefits.

**Benefit:** The benefit is the participant's accrued benefit as of the date of termination and is payable on the first day of the month coincident with or next following the date the participant reaches age 65. A participant with 10 or more years of Vesting Service can elect to take an early Termination Benefit on or after age 55. If the participant terminated employment prior to reaching the participant's earliest Retirement Date, the Early Payment Reduction Factor applies to the entire Tier One Accrued Benefit portion (if any) of the participant's Termination Benefit.

A participant who (1) at the Shutdown Time, was actively employed, had less than thirty (30) years of Vesting Service, and was under age 55, and (2) executes a release contemplated by a Settlement Agreement, may also be permitted to receive the Termination Benefit beginning at or after age 55, subject to a special benefit reduction factor contemplated in the Settlement Agreement, instead of the Early Payment Reduction Factor. The special benefit reduction factor is 12% for such a participant with ten or more years of Vesting Service at the Shutdown Time, and 22% for such a participant with less than ten years of Vesting Service at the Shutdown Time.

Participants who completed less than 5 years of Vesting Service, and were not otherwise deemed vested, will receive a refund of the participant's accumulated contributions.

**Normal Form of Benefit:** Same as for Normal Retirement.

#### **Q. Refunds**

**Eligibility:** All participants terminating employment with less than 5 years of Vesting Service are eligible to have their participant contributions returned to them upon separation from service. Vested participants (those with 5 or more years of Vesting Service) who are eligible for the Termination Benefit, or their beneficiaries, may also elect a refund in lieu of the vested benefits otherwise due.

**Benefit:** Refund of the participant's contributions.

#### **R. Participant Contributions**

4.0% of Earnings under the "employer pick-up" provisions of IRC Section 414(h).

#### **S. Employer Contributions**

Any additional amount determined by the actuary needed to fund the Plan properly according to State and Federal laws.





## T. Cost of Living Increases

For participants retired on or after October 1, 2003 and applicable to Tier One Benefits only; 1.0% annual increase beginning with the first benefit payment coincident with or next following the fifth anniversary of retirement.

## U. Changes from Previous Valuation

There were no changes in the plan provisions, however there were plan provisions triggered by the plant shutdown, see page A-2 of the Valuation Report.

## V. 13<sup>th</sup> Check

Not Applicable

## W. BACKDROP

**Eligibility:** Group A employees who have worked beyond their Normal Retirement Date are eligible to elect BACKDROP. Group B, C, and D employees are not eligible.

**Benefit:** Retirement benefits are calculated as if the retiree elected to retire up to 5 years earlier. Benefit is based upon the FAE and Benefit Service as of the beginning of the BACKDROP period. In addition, the participant receives a lump sum amount equal to the accumulation of the retirement benefits that the participant would have received over the BACKDROP period plus interest.

**Maximum  
BACKDROP**

**Period:** 60 months

**Interest Credited:** Each year interest is credited or debited to the BACKDROP based upon the Plan's Actuarial rate of return for that year. Rate is guaranteed to be no less than (4.0%) and no more than 4.0% per annum.

**Normal Form  
of Benefit:**

The BACKDROP component is paid in a lump sum. The Normal Form of the remaining component of the retirement benefit is the same as under Normal Retirement.

**COLA:** For participants retired on or after October 1, 2003; 1.0% annual increase beginning with the first benefit payment coincident with or next following the fifth anniversary of the participant's actual retirement date (not 5 years after the beginning date for the BACKDROP period).

## X. Other Ancillary Benefits

There are no ancillary retirement type benefits not required by statutes but which might be deemed a St. John's River Power Park System Employees' Retirement liability if continued beyond the availability of funding by the current funding source.



## **SECTION F**

---

### **COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS**

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS	October 1, 2020	October 1, 2019
<b>A. Participant Data</b>		
Number Included:		
Actives	5	5
Service Retirees & Beneficiaries	385	382
Disability Retirees	0	0
Terminated Vested Members	74	80
Total Members and Beneficiaries	464	467
Total Annual Payroll	\$467,042	\$452,525
Annual Valuation Payroll	467,042	452,525
Expected Annual Payroll in Contribution Year	261,694	178,405
Total Annualized Benefits		
Retirees & Beneficiaries	12,897,395	12,856,518
Terminated Vested Members	510,602	473,277
<b>B. Assets (Market Value)</b>		
Cash and Cash Equivalents	\$ 3,272,810	\$ 2,370,042
US Government Bonds & Notes	67,508,927	64,406,745
Corporate Bonds	-	-
Mortgage/Asset-Backed Securities	-	-
Common & Preferred Stocks	45,736,348	48,685,856
Mutual Funds	52,926,027	45,997,485
Net Receivables & Payables	535,967	552,485
Total	169,980,079	162,012,613
Credit Balance	8,962,815	12,205,496
Actuarial Value	161,017,264	149,807,117
Assets include:		
Accumulated active member contributions (with interest if applicable)	271,771	253,066
<b>C. Actuarial present value of accrued benefits</b>		
(i) Vested accrued benefits		
Retired members and beneficiaries	159,497,263	161,791,703
Terminated members	5,333,247	5,260,099
Active members (includes non-forfeitable members contributions of 271,771 and 253,066)	2,831,228	2,718,335
Total	167,661,738	169,770,137
(ii) Non-vested accrued benefits	0	0
(iii) Total actuarial p.v. of accrued benefits	167,661,738	169,770,137
(iv) Actuarial p.v. of accrued benefits at begin. of year	169,770,137	174,598,991
(v) Changes attributable to:		
Amendments	0	0
Assumption change	0	(2,953,370)
Operation of decrements	11,041,709	11,322,487
Benefit payments	(13,150,108)	(13,197,971)
Other	none	none
(vi) Net change (PVAB measurement Method Change)	(2,108,399)	(4,828,854)
(vii) Actuarial p.v. of accr. benefits at end of year	167,661,738	169,770,137



<b>COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS</b>	<b>October 1, 2020</b>	<b>October 1, 2019</b>
<b>C. Liabilities- Actuarial Present Value of Future Benefits</b>		
<b>1. Active Members</b>		
Service Retirement Benefits	\$2,967,920	\$2,867,197
Termination Benefits	6,607	7,392
Disability Benefits	10,018	10,516
Preretirement Death Benefits	12,987	13,444
Total Actives	2,997,532	2,898,549
<b>2. Inactive Members</b>		
Service Retirees & Beneficiaries	159,497,263	161,791,703
Terminated Vested Members	5,333,247	5,260,099
Total Inactive Members	164,830,510	167,051,802
<b>3. Total Present Value for All Members</b>	167,828,042	169,950,351
Total Present Value of:		
Future Salaries	2,012,241	2,081,728
Future Employee Contributions	80,490	83,269
Future Contributions from Other Sources	6,730,288	20,059,965
<b>Derivation of Current Employer Unfunded Actuarial Accrued Liability (UAAL)</b>		
a. Total UAAL for Prior Valuation Date	\$19,999,449	\$23,696,596
b. Employer Normal Cost for this period	\$125,539	96,792
c. Interest accrued on (a) and (b)	\$1,207,499	1,427,604
d. Contributions for this period	\$17,167,965	8,422,270
e. Interest accrued on (d)	\$515,039	252,668
f. Changes due to:		
Plan Amendment	\$0	0
Assumption Changes	\$0	(2,952,573)
Asset Method	\$0	0
Actuarial (Gain) Loss	\$3,028,198	6,405,968
g. Total Current UAAL: a+b+c-d-e+f	\$6,677,681	19,999,449
h. Funding UAAL	\$6,677,681	19,999,449
i. Credit Balance	\$8,962,815	12,205,496
j. Net Pension Liability	(\$2,285,134)	7,793,953



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS	October 1, 2020	October 1, 2019														
<b>D. Pension Cost</b>																
Entry Age Normal Cost for:																
Service Retirement Benefits	\$19,023	\$18,874														
Vesting Benefits	1,849	1,807														
Disability Benefits	328	325														
Preretirement Death Benefits	442	448														
Total Actives	21,642	21,454														
Administrative Expenses	88,489	111,221														
Total Normal Cost	110,131	132,675														
Payment Required to Amortize Unfunded Actuarial Accrued Liability	2,986,691	3,442,910														
Total Contribution at Valuation Date (EE + ER)	3,096,822	3,575,585														
Employer Contribution Adjusted for Frequency of Payments and Interest to Next Following Fiscal Year	3,374,430	3,901,061														
% of Expected Payroll	1289.46%	2186.63%														
Amount Expected to be Contributed by Members Next FY	10,468	7,136														
% of Expected Payroll	4.00%	4.00%														
<b>E. Past Contributions- For the Fiscal Years Ended September 30 of 2019 and 2020</b>																
Required Contribution Determined in the Valuation as of	<u>October 1, 2018</u>	<u>October 1, 2017</u>														
by the Plan Sponsor	\$8,422,270	\$8,422,270														
by Members	\$44,121	\$44,121														
Actual Contribution for the Fiscal Year ended	<u>9/30/2020</u>	<u>9/30/2019</u>														
by the Plan Sponsor	13,307,093	\$0														
by Members	18,705	\$90,149														
<b>F. Net experience (gain) loss during year:</b>	<b>\$3,028,198</b>	<b>\$6,405,968</b>														
<b>G. 1. Plan to Amortize Unfunded Actuarial Accrued Liability</b>																
Payments determined to fully amortize all of the Unfunded Actuarial Accrued Liability by October 1, 2020.																
2. Schedule Illustrating the Amortization of the Unfunded Actuarial Accrued Liability (UAAL)																
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Year</th> <th style="text-align: center;">Projected UAAL</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2020 (peak)</td> <td style="text-align: right;">\$6,677,681</td> </tr> <tr> <td style="text-align: center;">2021</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="text-align: center;">2022</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="text-align: center;">2023</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="text-align: center;">2024</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td style="text-align: center;">2025</td> <td style="text-align: right;">\$0</td> </tr> </tbody> </table>			Year	Projected UAAL	2020 (peak)	\$6,677,681	2021	\$0	2022	\$0	2023	\$0	2024	\$0	2025	\$0
Year	Projected UAAL															
2020 (peak)	\$6,677,681															
2021	\$0															
2022	\$0															
2023	\$0															
2024	\$0															
2025	\$0															
3. Action taken since last actuarial valuation. Contribution sufficient to satisfy the total required contribution.																



**COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS**

H. 1. Three-Year Comparison of Actual and Assumed Salary Increases (Annualized)

Year Ended	Actual	Assumed
9/30/2020	1.9%	2.6%
9/30/2019	1.9%	2.6%
9/30/2018	4.9%	2.6%

2. Three-Year Comparison of Investment Return (Actuarial Value)

Year Ended	Actual	Assumed
9/30/2020	4.78%	6.00%
9/30/2019	2.48%	6.00%
9/30/2018	7.37%	7.00%

3. Average Annual Growth in Payroll, Last Ten Years (if applicable)

Valuation Date	Total Payroll
9/30/2010	19,430,971
9/30/2011	19,895,174
9/30/2012	19,318,374
9/30/2013	17,761,203
9/30/2014	17,253,952
9/30/2015	16,664,648
9/30/2016	15,489,302
9/30/2017	11,988,122
9/30/2018	443,955
9/30/2019	452,525
9/30/2020	467,042
Total % Increase Last Ten Years	-97.60%
Annual % Increase	-31.12%
Thirty-year Forecast	N/A

I. Benefits and Expenses of Plan not Explicitly or Implicitly Provided in Valuation

NONE

J. Trends not taken into Account but which are likely to Result in Future Cost Increases

NONE