P: 954.527.1616 | F: 954.525.0083 | www.grsconsulting.com

December 16, 2020

Mr. Jack Wetzler
Assistant General Manager and
Chief Financial Officer
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

Re: January 1, 2020 Chapter 112.664 Compliance Report

Dear Jack:

As requested, we are pleased to enclose the January 1, 2020 Chapter 112.664 Compliance Report for the Retirement System for General Employees of the Utility Board of the City of Key West (System).

As required, we will timely upload the required data to the State's online portal.

Please note we understand the following items must be posted on the System's website and must be posted on any website containing budget information relating to the System sponsor or actuarial or performance information relating to the System:

- this compliance report
- most recent financial statement
- most recent actuarial valuation report
- a link to the Division of Retirement Actuarial Summary Fact Sheet
  http://www.dms.myflorida.com/workforce_operations/retirement/local_retirement_plans/local_retirement_section/actuarial_summary_fact_sheets
- for the previous five years - a side-by-side comparison of the System's assumed rate of return compared to the actual rate of return as well as the percentages of cash, equity, bond and alternative investments in the System portfolio
- the System's funded ratio as determined in the most recent actuarial valuation – 85.1% on a market value of assets basis as of January 1, 2020.

We appreciate the opportunity to work with the Board on this important assignment.

If you should have any questions concerning the above, please do not hesitate to contact us.

Sincerest regards,

Jennifer Borregard

Jennifer M. Borregard, E.A.
Consultant and Actuary

Enclosures

cc: Mr. Harry L. Bethel, Chairman

Retirement System For General Employees of the Utility Board of the City of Key West

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the January 1, 2020 Funding Actuarial Valuation Report and the System's Financial Reporting for the Year Ended December 31, 2019

P: 954.527.1616 | F: 954.525.0083 | www.grsconsulting.com

December 16, 2020

Mr. Jack Wetzler
Assistant General Manager and
Chief Financial Officer
Utility Board of the City of Key West
1001 James Street
Key West, Florida 33041-6100

Re: January 1, 2020 Chapter 112.664 Compliance Report

Dear Jack:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Board of Trustees of the Retirement System for General Employees of the Utility Board of the City of Key West (System) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

This report was prepared at the request of the Board of Trustees and is intended for use by the Board of Trustees and those designated or approved by the Board of Trustees. This report may be provided to parties other than the Board of Trustees only in its entirety and only with the permission of the Board of Trustees.

The purpose of the report is to provide the required information specified in Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; 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 System's funded status); and changes in System provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the Utility Board and the Board of Trustees concerning System benefits, System provisions and System members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the Utility Board and Board of Trustees as of December 31, 2019. We reviewed the information

provided for internal and year-to-year consistency, but did not audit the data. The System is responsible for the accuracy of the data.

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Board of Trustees as described in Section C. Demographic actuarial assumptions are based on the results of an actuarial experience study for the five period ended December 31, 2017. The Board of Trustees' assumptions are based on past and expected future System experience and represent an estimate of future System experience. The mortality assumptions are prescribed by statute.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does not represent an estimate of future System experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percentage of payroll and the funded status of the System is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act with normal cost determined as a level percent of covered payroll and a level percent amortization payment using a maximum amortization period of 30 years.

The System's funded ratio as of January 1, 2020 is 85.1% defined as the ratio of the market value of System assets to the actuarial accrued liability.

The System's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the System sponsor.

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 presents the actuarial position of the System as of the valuation date as required by statute. 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.

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were 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, and in our opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By Jennifer Borregard

Jennifer M. Borregard, M.A.A.A.
Enrolled Actuary No. 20-07624
Consultant & Actuary

By Michelle Jones

Shelly L. Jones, M.A.A.A.
Enrolled Actuary No. 20-08646
Consultant & Actuary

Date: December 16, 2020

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SECTION A

CHAPTER 112.664, F.S. RESULTS

Net Pension Liability
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

	Measurement Date		December 31, 2019
A.	**Total Pension Liability (TPL)**		
	Service Cost	$	1,533,031
	Interest		8,833,919
	Benefit Changes		0
	Difference Between Actual and Expected Experience		26,942
	Assumption Changes		(218,579)
	Benefit Payments		(6,513,941)
	Other		0
	Net Change in Total Pension Liability	$	3,661,372
	Total Pension Liability (TPL) - (beginning of year)		120,491,664
	Total Pension Liability (TPL) - (end of year)	$	124,153,036
B.	**System Fiduciary Net Position**		
	Contributions - System Sponsor	$	4,468,689
	Contributions - Member		0
	Net Investment Income		18,937,609
	Benefit Payments		(6,513,941)
	Administrative Expenses		(59,031)
	Other		0
	Net Change in System Fiduciary Net Position	$	16,833,326
	System Fiduciary Net Position - (beginning of year)		87,492,294
	System Fiduciary Net Position - (end of year)	$	104,325,620
C.	**Net Pension Liability (NPL) - (end of year): (A) - (B)**	$	19,827,416
	Valuation Date		January 1, 2019

Certain Key Assumptions

Investment Return Assumption 7.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Net Pension Liability
Using Assumptions Required Under 112.664(1)(b), F.S.

	Measurement Date		December 31, 2019
A.	**Total Pension Liability (TPL)**		
	Service Cost	$	2,610,805
	Interest		8,391,342
	Benefit Changes		0
	Difference Between Actual and Expected Experience		261,712
	Assumption Changes		(227,130)
	Benefit Payments		(6,513,941)
	Other		0
	Net Change in Total Pension Liability	$	4,522,788
	Total Pension Liability (TPL) - (beginning of year)		154,581,166
	Total Pension Liability (TPL) - (end of year)	$	159,103,954
B.	**System Fiduciary Net Position**		
	Contributions - System Sponsor	$	4,468,689
	Contributions - Member		0
	Net Investment Income		18,937,609
	Benefit Payments		(6,513,941)
	Administrative Expenses		(59,031)
	Other		0
	Net Change in System Fiduciary Net Position	$	16,833,326
	System Fiduciary Net Position - (beginning of year)		87,492,294
	System Fiduciary Net Position - (end of year)	$	104,325,620
C.	**Net Pension Liability (NPL) - (end of year): (A) - (B)**	$	54,778,334
	Valuation Date		January 1, 2019

Certain Key Assumptions

Investment Return Assumption 5.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Net Pension Liability
Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

	Measurement Date		December 31, 2019
A.	**Total Pension Liability (TPL)**		
	Service Cost	$	938,818
	Interest		8,954,788
	Benefit Changes		0
	Difference Between Actual and Expected Experience		(149,173)
	Assumption Changes		(184,155)
	Benefit Payments		(6,513,941)
	Other		0
	Net Change in Total Pension Liability	$	3,046,337
	Total Pension Liability (TPL) - (beginning of year)		97,411,139
	Total Pension Liability (TPL) - (end of year)	$	100,457,476
B.	**System Fiduciary Net Position**		
	Contributions - System Sponsor	$	4,468,689
	Contributions - Member		0
	Net Investment Income		18,937,609
	Benefit Payments		(6,513,941)
	Administrative Expenses		(59,031)
	Other		0
	Net Change in System Fiduciary Net Position	$	16,833,326
	System Fiduciary Net Position - (beginning of year)		87,492,294
	System Fiduciary Net Position - (end of year)	$	104,325,620
C.	**Net Pension Liability (NPL) - (end of year): (A) - (B)**	$	(3,868,144)
	Valuation Date		January 1, 2019

Certain Key Assumptions

Investment Return Assumption 9.45%

Mortality Table:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	104,325,620	7,442,893	6,991,906	104,776,607
2021	104,776,607	7,442,494	7,843,753	104,375,348
2022	104,375,348	7,402,268	8,109,420	103,668,196
2023	103,668,196	7,339,918	8,362,184	102,645,930
2024	102,645,930	7,255,902	8,573,254	101,328,578
2025	101,328,578	7,152,707	8,717,294	99,763,991
2026	99,763,991	7,031,056	8,865,392	97,929,655
2027	97,929,655	6,891,128	8,971,023	95,849,760
2028	95,849,760	6,731,110	9,125,019	93,455,851
2029	93,455,851	6,548,081	9,273,333	90,730,599
2030	90,730,599	6,343,450	9,348,050	87,725,999
2031	87,725,999	6,117,530	9,438,322	84,405,207
2032	84,405,207	5,868,390	9,524,138	80,749,459
2033	80,749,459	5,594,970	9,597,126	76,747,303
2034	76,747,303	5,294,881	9,696,241	72,345,943
2035	72,345,943	4,968,180	9,721,476	67,592,647
2036	67,592,647	4,615,178	9,753,207	62,454,618
2037	62,454,618	4,234,208	9,772,281	56,916,545
2038	56,916,545	3,825,398	9,746,874	50,995,069
2039	50,995,069	3,388,341	9,718,302	44,665,108
2040	44,665,108	2,922,144	9,662,323	37,924,929
2041	37,924,929	2,426,520	9,582,892	30,768,557
2042	30,768,557	1,901,195	9,475,780	23,193,972
2043	23,193,972	1,344,939	9,368,238	15,170,673
2044	15,170,673	755,780	9,253,098	6,673,355
2045	6,673,355	159,957	9,108,611	-
2046	-	-	8,952,405	-
2047	-	-	8,774,160	-
2048	-	-	8,579,006	-
2049	-	-	8,361,118	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the System Sponsor: 25.75

Certain Key Assumptions

Investment return assumption 7.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the System Sponsor. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under Government Accounting Standards Board standards, which include System Sponsor contributions, the System is expected to be able to pay all future benefit payments.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(b), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	104,325,620	5,430,713	6,991,906	102,764,427
2021	102,764,427	5,321,693	7,843,753	100,242,367
2022	100,242,367	5,177,793	8,109,420	97,310,740
2023	97,310,740	5,012,151	8,362,184	93,960,707
2024	93,960,707	4,825,125	8,573,254	90,212,578
2025	90,212,578	4,618,547	8,717,294	86,113,831
2026	86,113,831	4,392,918	8,865,392	81,641,357
2027	81,641,357	4,148,339	8,971,023	76,818,673
2028	76,818,673	3,883,446	9,125,019	71,577,100
2029	71,577,100	3,596,098	9,273,333	65,899,865
2030	65,899,865	3,287,359	9,348,050	59,839,174
2031	59,839,174	2,957,463	9,438,322	53,358,315
2032	53,358,315	2,605,006	9,524,138	46,439,183
2033	46,439,183	2,229,255	9,597,126	39,071,312
2034	39,071,312	1,828,515	9,696,241	31,203,586
2035	31,203,586	1,402,925	9,721,476	22,885,035
2036	22,885,035	952,803	9,753,207	14,084,631
2037	14,084,631	477,027	9,772,281	4,789,377
2038	4,789,377	52,282	9,746,874	-
2039	-	-	9,718,302	-
2040	-	-	9,662,323	-
2041	-	-	9,582,892	-
2042	-	-	9,475,780	-
2043	-	-	9,368,238	-
2044	-	-	9,253,098	-
2045	-	-	9,108,611	-
2046	-	-	8,952,405	-
2047	-	-	8,774,160	-
2048	-	-	8,579,006	-
2049	-	-	8,361,118	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the System Sponsor: 18.42

Certain Key Assumptions

Investment return assumption 5.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the System Sponsor. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under Government Accounting Standards Board standards, which include System Sponsor contributions, the System is expected to be able to pay all future benefit payments.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2020	104,325,620	9,455,489	6,991,906	106,789,203
2021	106,789,203	9,644,288	7,843,753	108,589,738
2022	108,589,738	9,800,197	8,109,420	110,280,515
2023	110,280,515	9,946,437	8,362,184	111,864,768
2024	111,864,768	10,084,757	8,573,254	113,376,271
2025	113,376,271	10,219,605	8,717,294	114,878,582
2026	114,878,582	10,353,385	8,865,392	116,366,575
2027	116,366,575	10,487,952	8,971,023	117,883,504
2028	117,883,504	10,622,810	9,125,019	119,381,295
2029	119,381,295	10,756,154	9,273,333	120,864,116
2030	120,864,116	10,891,787	9,348,050	122,407,853
2031	122,407,853	11,032,366	9,438,322	124,001,897
2032	124,001,897	11,177,896	9,524,138	125,655,655
2033	125,655,655	11,329,684	9,597,126	127,388,213
2034	127,388,213	11,487,567	9,696,241	129,179,539
2035	129,179,539	11,654,685	9,721,476	131,112,748
2036	131,112,748	11,834,813	9,753,207	133,194,354
2037	133,194,354	12,029,526	9,772,281	135,451,599
2038	135,451,599	12,242,983	9,746,874	137,947,708
2039	137,947,708	12,479,052	9,718,302	140,708,458
2040	140,708,458	12,741,374	9,662,323	143,787,509
2041	143,787,509	13,034,793	9,582,892	147,239,410
2042	147,239,410	13,364,651	9,475,780	151,128,281
2043	151,128,281	13,735,605	9,368,238	155,495,648
2044	155,495,648	14,151,920	9,253,098	160,394,470
2045	160,394,470	14,619,665	9,108,611	165,905,524
2046	165,905,524	15,145,548	8,952,405	172,098,667
2047	172,098,667	15,736,655	8,774,160	179,061,162
2048	179,061,162	16,400,930	8,579,006	186,883,086
2049	186,883,086	17,147,132	8,361,118	195,669,100

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the System Sponsor: 99.99

Certain Key Assumptions

Investment return assumption 9.40%

Mortality Table:

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of System assets does not include future contributions from the System Sponsor. For this reason, this projection should not be viewed as representative of the amount of time the System can sustain benefit payments. Under Government Accounting Standards Board standards, which include System Sponsor contributions, the System is expected to be able to pay all future benefit payments.

ACTUARIALLY DETERMINED CONTRIBUTION

	Valuation Assumptions and 112.664(1)(a), F.S. Assumptions		112.664(1)(b), F.S. Assumptions		112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption	
A. Valuation Date	January 1, 2020		January 1, 2020		January 1, 2020	
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	December 31, 2020		December 31, 2020		December 31, 2020	
C. Annual Payroll of Active Employees	$ 10,541,172		$ 10,541,172		$ 10,541,172	
D. Total Minimum Funding Requirement						
1. Total Normal Cost	$ 1,612,001		$ 2,690,189		$ 1,014,929	
2. Annual Payment to Amortize Unfunded Actuarial Liability	2,426,425		4,210,203		685,173	
3. Interest Adjustment	149,422		186,311		79,905	
4. Total Minimum Funding Requirement	$ 4,187,848		$ 7,086,703		$ 1,780,007	
E. Expected Contribution Sources ($ / % of pay)						
1. Utility Board	$ 4,187,848	39.73%	$ 7,086,703	67.23%	$ 1,780,007	16.89%
2. Member	0	0.00%	0	0.00%	0	0.00%
3. Total	$ 4,187,848	39.73%	$ 7,086,703	67.23%	$ 1,780,007	16.89%

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

			Amortization Payment			
	Amortization Base	Current Unfunded Liabilities	Valuation and 112.664(1)(a), F.S. Assumptions	112.664(1)(b), F.S. Assumptions	112.664(1)(a), F.S. Assumptions Plus 2%	Remaining Funding Period
01/01/2003	Actuarial Loss / (Gain)	$ 8,195,526	$ 910,628	$ 825,683	$ 997,864	13 years
01/01/2003	Method Change	(7,076,000)	(786,234)	(712,893)	(861,554)	13 years
01/01/2003	Assumption Change	(447,405)	(49,712)	(45,075)	(54,475)	13 years
01/01/2004	Actuarial Loss / (Gain)	1,787,588	189,732	170,827	209,199	14 years
01/01/2005	Retiree Benefit Corrections	(1,179,367)	(120,143)	(107,432)	(133,265)	15 years
01/01/2005	Actuarial Loss / (Gain)	1,746,237	177,891	159,069	197,320	15 years
01/01/2006	Actuarial Loss / (Gain)	2,325,069	228,268	202,753	254,668	16 years
01/01/2007	Plan Amendment	45,062	4,279	3,776	4,800	17 years
01/01/2007	Actuarial Loss / (Gain)	1,614,139	153,271	135,251	171,953	17 years
01/01/2008	Actuarial Loss / (Gain)	(366,152)	(33,732)	(29,577)	(38,048)	18 years
01/01/2009	Actuarial Loss / (Gain)	9,763,295	875,055	762,518	992,153	19 years
01/01/2009	Assumption Change	1,794,396	160,826	140,143	182,348	19 years
01/01/2009	Plan Amendment	33,704	3,021	2,632	3,425	19 years
01/01/2010	Actuarial Loss / (Gain)	(2,140,108)	(187,064)	(162,022)	(213,159)	20 years
01/01/2011	Actuarial Loss / (Gain)	2,199,376	187,892	161,782	215,136	21 years
01/01/2012	Actuarial Loss / (Gain)	2,614,262	218,703	187,232	251,577	22 years
01/01/2013	Actuarial Loss / (Gain)	3,247,318	266,490	226,870	307,916	23 years
01/01/2014	Actuarial Loss / (Gain)	(3,372,088)	(271,884)	(230,206)	(315,497)	24 years
01/01/2014	Assumption Change	3,855,043	310,824	263,176	360,683	24 years
01/01/2015	Actuarial Loss / (Gain)	(2,415,564)	(191,623)	(161,391)	(223,278)	25 years
01/01/2016	Actuarial Loss / (Gain)	289,724	22,642	18,972	26,487	26 years
01/01/2016	Assumption Change	2,745,108	214,529	179,756	250,958	26 years
01/01/2017	Actuarial Loss / (Gain)	(1,117,741)	(86,153)	(71,828)	(101,165)	27 years
01/01/2017	Assumption Change	110,783	8,539	7,119	10,027	27 years
01/01/2017	Plan Amendment	129,816	10,006	8,342	11,749	27 years
01/01/2018	Actuarial Loss / (Gain)	(613,044)	(46,653)	(38,707)	(54,982)	28 years
01/01/2019	Combined Bases *	1,798,452	256,830	239,927	273,961	9 years
01/01/2019	Actuarial Loss / (Gain)	2,071,661	155,809	128,662	184,267	29 years
01/01/2019	Assumption Change	(216,249)	(16,264)	(13,430)	(19,235)	29 years
01/01/2020	Actuarial Loss / (Gain)	458,060	34,077	28,011	40,436	30 years
01/01/2020	Assumption Change	(2,331,163)	(173,425)	(142,552)	(205,786)	30 years
01/01/2020	Assumption Change - 112.664(1)(b), F.S. Assumptions	33,896,890	N/A	2,072,815	N/A	30 years
01/01/2020	Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(23,124,173)	N/A	N/A	(2,041,310)	30 years

* Combined per Internal Revenue Code Regulation 1.412(b)-1

SECTION B

SUMMARY OF SYSTEM PROVISIONS

Outline of Principal Provisions of the Retirement Plan
(as of January 1, 2020)

A. Effective Date:

April 9, 1954, as amended and restated as of October 25, 2017.

B. Eligibility Requirements:

All regular and permanent employees of the Utility Board shall become members of the Plan immediately upon completion of probationary period. All regular and permanent employees of the Utility Board employed prior to October 2, 2003 became members of the Plan immediately upon employment. Elected Utility Board officials become members of the Plan immediately upon election.

C. Member Contributions:

Eliminated effective October 1, 1985 (October 1, 1983 for management members).

D. Utility Board Contributions:

The Utility Board shall contribute an amount which will be determined annually by decision of the Utility Board.

E. Credited Service:

Credited service is service performed subject to a maximum of 30 years. However, any member with more than 30 years of credited service as of November 20, 1998 will be grandfathered under the prior 35 year cap.

F. Final Average Compensation:

Final average compensation (FAC) equals the average annual pensionable earnings earned during a period of the five highest years out of the last ten years of service immediately preceding retirement. Pensionable earnings are calculated using the member's base hourly rate each pay period, multiplied by 80 hours, less any hours that are considered *leave without pay* .

Effective January 1, 2020, FAC equals the average of the pensionable earnings earned by a member during the highest 10,440 hours out of the last 20,880 hours of service (which shall be determined using the highest 130.5 payroll periods of the last 261 payroll periods) immediately preceding termination of service or retirement. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

G. Career Average Compensation:

Career average compensation (CAC) means the average of the pensionable earnings earned by a member from date of participation to termination of service. Pensionable earnings are calculated using the member's base hourly rate in effect each pay period, multiplied by the corresponding hours earned during that pay period, less any hours that are considered *leave without pay* or are otherwise excluded from pensionable earnings.

H. Normal Retirement:

1. Eligibility:

Earlier of:

(a) Attainment of age 60 and completion of 10 years of credited service, attainment of age 60 if a Plan Member on or before November 13, 2008.

(b) Completion of 30 years of credited service.

2. Benefit:

For employees hired on or before May 31, 2010, 2.4% times FAC times years of credited service. For employees hired on or after June 1, 2010, 2.0% times CAC times years of credited service.

I. Early Retirement:

1. Eligibility:

Earliest of:

(a) Attainment of age 55 with completion of 10 years of credited service.

(b) Completion of 20 years of credited service.

2. Benefit:

Benefit as calculated for normal retirement based on credited service and FAC or CAC as of early retirement date. The member may elect to defer receipt of the benefit until the normal retirement date or alternatively, may elect a benefit reduced 5% for each year the benefit commencement date precedes normal retirement date.

J. Disability Retirement:

1. Eligibility:

Totally and permanently disabled as defined under the Plan and completion of 10 years of credited service as of date of disability.

2. Benefit:

For employees hired on or before May 31, 2010, benefit as calculated for normal retirement based on credited service and average basic compensation during the three years immediately preceding disability, minimum benefit of 20% of final three year average basic compensation at date of disability.

For employees hired on or after June 1, 2010, benefit as calculated for normal retirement based on credited service and CAC as of date of disability, minimum benefit of 20% of CAC at date of disability.

These benefits will be offset by any benefits payable under Workers' Compensation or similar injury or disability benefit payments.

K. Pre-Retirement Death Benefit:

In the case of death of a member while currently employed, the amount of the projected benefit which such member would have received had the member continued employment until normal retirement date at the current rate of pay shall be determined. Each Plan Member may elect survivor payment under Option 1 or Option 2, however, Option 2 is only available if the Plan Member has children under 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security).

Option 1, 75% of the benefit calculated above payable during the remaining lifetime of the spouse or domestic partner.

Option 2, 100% of the benefit calculated above payable until the youngest child is 21 years of age (25 years of age provided the child is a full-time student in college or disabled under Social Security). Upon attainment of age 21 (age 25 provided the child is a full-time student in college or disabled under Social Security) by the youngest child, 60% of the benefit calculated above payable during the remaining lifetime of the surviving spouse or domestic partner.

Notwithstanding the above, the minimum death benefit paid shall not be less than the accumulated employee contributions, if any, as of date of death.

L. Termination Benefit:

Upon termination prior to normal or early retirement date a member shall be entitled to choose (1) or (2) below, where:

(1) is a refund of employee contributions plus 1% if termination with 5 years or less of service, or 3% if termination after 5 years of service; and,

(2) is (a) x (b), where (a) is the benefit as calculated for normal retirement, based on FAC or CAC and credited service at date of termination, and (b) is a percentage as shown on the following table:

Years of Credited Service	Percentage
Less than 5	0%
5	25%
6	30%
7	40%
8	60%
9	80%
10 or more	100%

If this option is selected, unreduced vested benefits commence as of the terminated employees' normal retirement date. Alternatively, the member may elect to commence receiving a reduced vested benefit any time after early retirement eligibility requirements are met. Such benefit is reduced by 5% for each year that commencement of benefits precedes the date which the member would have been eligible for normal retirement.

M. Normal Form of Payment:

Monthly life annuity with final payment due in month in which death occurs. Effective January 1, 1986, monthly benefits are increased 2% per annum. Effective January 1, 2001, monthly benefits are increased 3% per annum.

N. Changes Since Previous Valuation

None.

SECTION C

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation (as of January 1, 2020)

A. Mortality

For healthy participants during employment, PUB-2010 Headcount Weighted General Below Median Employee Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table, separate rates for males and females, set back 1 year for males, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, separate rates for males and females, both set forward 3 years, without projected mortality improvement.

Sample Ages (2020)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	32.58	35.02	28.63	32.38
60	27.74	30.00	24.55	27.84
62	25.85	28.02	22.93	26.02

Sample Ages (2040)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	34.22	36.50	30.64	34.15
60	29.30	31.44	26.40	29.51
62	27.37	29.43	24.72	27.63

B. Interest to be Earned by Fund

7.40%, net of investment expenses, compounded annually - includes inflation of 2.60%.

C. Allowances for Expenses or Contingencies

Average of actual administrative expenses during prior three (3) years.

D. Employee Withdrawal Rates

Withdrawal rates were used in accordance with tables per the following illustrative example:

Withdrawal Rates	
Service	Unisex Rates
0	9.0%
1	8.1%
2	7.2%
3	5.4%
4	3.6%
5+	3.3%

E. Salary Increase Factors

Current salary was assumed to increase according to the following table.

Age	Salary Increase Factors		
	Assumed Wage Inflation	Promotion & Seniority	Total Current Rates
< 35	3.25%	3.75%	7.00%
35 - 49	3.25%	1.75%	5.00%
50 & After	3.25%	0.75%	4.00%

F. Disability Benefits

Class (01) Inter-Company modified disability rates for males were used. Rates for females were doubled. No Workers' Compensation benefits are assumed to be payable.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation (as of January 1, 2020)

G. Assumed Retirement Age

Employees are assumed to retire at the rates shown in the following table.

Less than 30 Years of Service	
Age	Rate of Retirement
< 55	6.5%
55 - 58	15.0%
59 - 60	30.0%
61 - 69	5.0%
70 +	100.0%
30 Years of Service	
Age	Rate of Retirement
< 50	50.0%
50 +	100.0%

H. Death Benefits

1. The assumed incidence of deaths is 90% service incurred and 10% as non-service incurred.
2. 10% of participants are assumed to designate a child as beneficiary eligible for future children's benefits.
3. 90% of participants are assumed to be married.

I. Valuation of Assets

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of System assets and whose upper limit is 120% of the fair market value of System assets.

J. Increase in Covered Payroll

3.0% per year, but limited to average annual increase over most recent ten years (0.5%).

K. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Actuarial Cost Method. Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his age at hire to his assumed retirement age to fund his estimated benefits, assuming the System had always been in effect. The normal cost for the System is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the System is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the smoothed actuarial value of assets of the System.

L. Changes Since Previous Valuation

1. Mortality was:

For healthy male participants during employment, RP 2000 Combined Male Healthy Participant Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants during employment, RP 2000 Combined Female Healthy Participant Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy male participants post employment, RP 2000 Annuitant Male Mortality Table, with 50% White Collar / 50% Blue Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy female participants post employment, RP 2000 Annuitant Female Mortality Table, with White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, RP 2000 Disabled Male Mortality Table, setback four years, without projected mortality improvements. For disabled female participants, RP 2000 Disabled Female Mortality Table, set forward two years, without projected mortality improvements.

L. Changes Since Previous Valuation (cont'd)

Sample Ages (2020)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	30.75	33.76	30.32	33.54
60	25.82	28.73	25.66	28.63
62	23.92	26.77	23.82	26.71

Sample Ages (2040)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
55	32.88	35.58	32.47	35.39
60	27.99	30.56	27.84	30.47
62	26.08	28.58	25.99	28.53

2. Interest to be Earned by Fund was:

7.45%, net of investment expenses, compounded annually - includes inflation of 2.60%.

SECTION D

GLOSSARY

GLOSSARY

Actuarial Accrued Liability	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
Amortization Payment	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
Annual Required Contribution	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

GASB	Governmental Accounting Standards Board.
GASB No. 67 and GASB No. 68	These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.