



June 30, 2021

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, 2021 Chapter 112.664 Compliance Report

Dear Jack:

As requested, we are pleased to enclose the January 1, 2021 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 – 92.2% on a market value of assets basis as of January 1, 2021.

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,

A handwritten signature in black ink that reads "Jennifer Borregard". The signature is written in a cursive, flowing style.

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

Enclosure

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, 2021 Funding Actuarial Valuation Report and the System's Financial Reporting for the Year Ended December 31, 2020





June 30, 2021

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, 2021 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, 2020. 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, 2021 is 92.2% 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



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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	<u>December 31, 2020</u>
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 1,547,225
Interest	8,932,525
Benefit Changes	0
Difference Between Actual and Expected Experience	781,979
Assumption Changes	(2,331,163)
Benefit Payments	(6,882,561)
Other	<u>0</u>
Net Change in Total Pension Liability	\$ 2,048,005
Total Pension Liability (TPL) - (beginning of year)	<u>124,153,036</u>
Total Pension Liability (TPL) - (end of year)	<u><u>\$ 126,201,041</u></u>
B. <u>System Fiduciary Net Position</u>	
Contributions - System Sponsor	\$ 4,596,321
Contributions - Member	0
Net Investment Income	14,615,438
Benefit Payments	(6,882,561)
Administrative Expenses	(58,185)
Other	<u>0</u>
Net Change in System Fiduciary Net Position	\$ 12,271,013
System Fiduciary Net Position - (beginning of year)	<u>104,325,620</u>
System Fiduciary Net Position - (end of year)	<u><u>\$ 116,596,633</u></u>
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 9,604,408
Valuation Date	January 1, 2020

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.



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

Measurement Date	<u>December 31, 2020</u>
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 2,625,413
Interest	8,406,983
Benefit Changes	0
Difference Between Actual and Expected Experience	1,033,698
Assumption Changes	(3,636,910)
Benefit Payments	(6,882,561)
Other	<u>0</u>
Net Change in Total Pension Liability	\$ 1,546,623
Total Pension Liability (TPL) - (beginning of year)	<u>159,103,954</u>
Total Pension Liability (TPL) - (end of year)	<u>\$ 160,650,577</u>
B. <u>System Fiduciary Net Position</u>	
Contributions - System Sponsor	\$ 4,596,321
Contributions - Member	0
Net Investment Income	14,615,438
Benefit Payments	(6,882,561)
Administrative Expenses	(58,185)
Other	<u>0</u>
Net Change in System Fiduciary Net Position	\$ 12,271,013
System Fiduciary Net Position - (beginning of year)	<u>104,325,620</u>
System Fiduciary Net Position - (end of year)	<u>\$ 116,596,633</u>
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ 44,053,944
Valuation Date	January 1, 2020

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.



Net Pension Liability

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

Measurement Date	<u>December 31, 2020</u>
A. <u>Total Pension Liability (TPL)</u>	
Service Cost	\$ 950,153
Interest	9,116,924
Benefit Changes	0
Difference Between Actual and Expected Experience	592,606
Assumption Changes	(1,570,403)
Benefit Payments	(6,882,561)
Other	<u>0</u>
Net Change in Total Pension Liability	\$ 2,206,719
Total Pension Liability (TPL) - (beginning of year)	<u>100,457,476</u>
Total Pension Liability (TPL) - (end of year)	<u>\$ 102,664,195</u>
B. <u>System Fiduciary Net Position</u>	
Contributions - System Sponsor	\$ 4,596,321
Contributions - Member	0
Net Investment Income	14,615,438
Benefit Payments	(6,882,561)
Administrative Expenses	(58,185)
Other	<u>0</u>
Net Change in System Fiduciary Net Position	\$ 12,271,013
System Fiduciary Net Position - (beginning of year)	<u>104,325,620</u>
System Fiduciary Net Position - (end of year)	<u>\$ 116,596,633</u>
C. <u>Net Pension Liability (NPL) - (end of year): (A) - (B)</u>	\$ (13,932,438)
Valuation Date	January 1, 2020

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.



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)
2021	116,596,633	8,282,041	7,308,364	117,570,310
2022	117,570,310	8,324,084	8,058,015	117,836,379
2023	117,836,379	8,332,557	8,339,445	117,829,491
2024	117,829,491	8,322,882	8,572,261	117,580,112
2025	117,580,112	8,298,152	8,734,797	117,143,467
2026	117,143,467	8,259,533	8,900,501	116,502,499
2027	116,502,499	8,207,674	9,021,062	115,689,111
2028	115,689,111	8,140,167	9,217,162	114,612,116
2029	114,612,116	8,054,180	9,390,561	113,275,735
2030	113,275,735	7,952,659	9,474,280	111,754,114
2031	111,754,114	7,835,920	9,598,701	109,991,333
2032	109,991,333	7,702,184	9,704,608	107,988,909
2033	107,988,909	7,551,323	9,798,134	105,742,098
2034	105,742,098	7,381,278	9,922,672	103,200,704
2035	103,200,704	7,192,592	9,970,750	100,422,546
2036	100,422,546	6,986,419	10,020,981	97,387,984
2037	97,387,984	6,761,724	10,063,007	94,086,701
2038	94,086,701	6,519,204	10,059,858	90,546,047
2039	90,546,047	6,259,266	10,052,231	86,753,082
2040	86,753,082	5,981,896	10,016,362	82,718,616
2041	82,718,616	5,687,755	9,955,618	78,450,753
2042	78,450,753	5,377,610	9,865,633	73,962,730
2043	73,962,730	5,051,191	9,778,033	69,235,888
2044	69,235,888	4,707,468	9,684,060	64,259,296
2045	64,259,296	4,346,684	9,557,216	59,048,764
2046	59,048,764	3,969,244	9,416,703	53,601,305
2047	53,601,305	3,575,188	9,255,890	47,920,603
2048	47,920,603	3,164,653	9,078,238	42,007,018
2049	42,007,018	2,737,885	8,878,130	35,866,773
2050	35,866,773	2,295,454	8,652,717	29,509,510
2051	29,509,510	1,837,890	8,406,525	22,940,875
2052	22,940,875	1,365,577	8,140,376	16,166,076
2053	16,166,076	878,888	7,854,485	9,190,479
2054	9,190,479	378,196	7,549,398	2,019,277
2055	2,019,277	14,621	7,225,986	-

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: 34.25

Certain Key Assumptions

Investment return assumption 7.35%

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)
2021	116,596,633	6,027,816	7,308,364	115,316,085
2022	115,316,085	5,937,755	8,058,015	113,195,825
2023	113,195,825	5,816,231	8,339,445	110,672,611
2024	110,672,611	5,674,546	8,572,261	107,774,896
2025	107,774,896	5,514,845	8,734,797	104,554,944
2026	104,554,944	5,337,814	8,900,501	100,992,257
2027	100,992,257	5,143,744	9,021,062	97,114,939
2028	97,114,939	4,930,670	9,217,162	92,828,447
2029	92,828,447	4,696,358	9,390,561	88,134,244
2030	88,134,244	4,442,811	9,474,280	83,102,775
2031	83,102,775	4,170,051	9,598,701	77,674,125
2032	77,674,125	3,876,573	9,704,608	71,846,090
2033	71,846,090	3,562,085	9,798,134	65,610,041
2034	65,610,041	3,224,876	9,922,672	58,912,245
2035	58,912,245	2,865,162	9,970,750	51,806,657
2036	51,806,657	2,483,569	10,020,981	44,269,245
2037	44,269,245	2,079,109	10,063,007	36,285,347
2038	36,285,347	1,652,061	10,059,858	27,877,550
2039	27,877,550	1,202,463	10,052,231	19,027,782
2040	19,027,782	730,032	10,016,362	9,741,452
2041	9,741,452	234,959	9,955,618	20,793
2042	20,793	-	9,865,633	-
2043	-	-	9,778,033	-
2044	-	-	9,684,060	-
2045	-	-	9,557,216	-
2046	-	-	9,416,703	-
2047	-	-	9,255,890	-
2048	-	-	9,078,238	-
2049	-	-	8,878,130	-
2050	-	-	8,652,717	-

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: 21.00

Certain Key Assumptions

Investment return assumption 5.35%

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)
2021	116,596,633	10,536,701	7,308,364	119,824,970
2022	119,824,970	10,801,102	8,058,015	122,568,057
2023	122,568,057	11,043,522	8,339,445	125,272,134
2024	125,272,134	11,284,723	8,572,261	127,984,596
2025	127,984,596	11,530,219	8,734,797	130,780,018
2026	130,780,018	11,783,313	8,900,501	133,662,830
2027	133,662,830	12,046,834	9,021,062	136,688,602
2028	136,688,602	12,319,947	9,217,162	139,791,387
2029	139,791,387	12,601,396	9,390,561	143,002,222
2030	143,002,222	12,897,427	9,474,280	146,425,369
2031	146,425,369	13,211,275	9,598,701	150,037,943
2032	150,037,943	13,543,761	9,704,608	153,877,096
2033	153,877,096	13,898,049	9,798,134	157,977,011
2034	157,977,011	14,275,170	9,922,672	162,329,509
2035	162,329,509	14,679,727	9,970,750	167,038,486
2036	167,038,486	15,117,507	10,020,981	172,135,012
2037	172,135,012	15,591,933	10,063,007	177,663,938
2038	177,663,938	16,109,045	10,059,858	183,713,125
2039	183,713,125	16,675,025	10,052,231	190,335,919
2040	190,335,919	17,296,048	10,016,362	197,615,605
2041	197,615,605	17,979,733	9,955,618	205,639,720
2042	205,639,720	18,734,483	9,865,633	214,508,570
2043	214,508,570	19,568,096	9,778,033	224,298,633
2044	224,298,633	20,488,162	9,684,060	235,102,735
2045	235,102,735	21,504,682	9,557,216	247,050,201
2046	247,050,201	22,628,789	9,416,703	260,262,287
2047	260,262,287	23,872,152	9,255,890	274,878,549
2048	274,878,549	25,247,647	9,078,238	291,047,958
2049	291,047,958	26,769,483	8,878,130	308,939,311
2050	308,939,311	28,453,585	8,652,717	328,740,179

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: All future years

Certain Key Assumptions

Investment return assumption 9.35%

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, 2021	January 1, 2021	January 1, 2021
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	December 31, 2021	December 31, 2021	December 31, 2021
C. Annual Payroll of Active Employees	\$ 10,557,428	\$ 10,557,428	\$ 10,557,428
D. Total Minimum Funding Requirement			
1. Total Normal Cost	\$ 1,605,957	\$ 2,673,183	\$ 1,013,737
2. Annual Payment to Amortize Unfunded Actuarial Liability	2,119,942	4,032,543	247,505
3. Interest Adjustment	136,927	179,378	58,963
4. Total Minimum Funding Requirement	\$ 3,862,826	\$ 6,885,104	\$ 1,320,205
E. Expected Contribution Sources (\$ / % of pay)			
1. Utility Board	\$ 3,862,826 36.59%	\$ 6,885,104 65.22%	\$ 1,320,205 12.50%
2. Member	0 0.00%	0 0.00%	0 0.00%
3. Total	\$ 3,862,826 36.59%	\$ 6,885,104 65.22%	\$ 1,320,205 12.50%



Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

Amortization Base	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
		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%	
01/01/2003 Actuarial Loss / (Gain)	\$ 7,662,932	\$ 894,375	\$ 816,691	\$ 973,932	12 years
01/01/2003 Method Change	(6,616,162)	(772,202)	(705,130)	(840,891)	12 years
01/01/2003 Assumption Change	(418,331)	(48,825)	(44,584)	(53,168)	12 years
01/01/2004 Actuarial Loss / (Gain)	1,682,544	186,510	169,084	204,409	13 years
01/01/2005 Retiree Benefit Corrections	(1,116,359)	(118,189)	(106,393)	(130,338)	14 years
01/01/2005 Actuarial Loss / (Gain)	1,652,944	174,997	157,531	192,987	14 years
01/01/2006 Actuarial Loss / (Gain)	2,211,595	224,691	200,876	249,281	15 years
01/01/2007 Plan Amendment	43,045	4,214	3,742	4,702	16 years
01/01/2007 Actuarial Loss / (Gain)	1,541,866	150,945	134,041	168,439	16 years
01/01/2008 Actuarial Loss / (Gain)	(351,053)	(33,234)	(29,320)	(37,294)	17 years
01/01/2009 Actuarial Loss / (Gain)	9,391,216	862,455	756,006	973,063	18 years
01/01/2009 Assumption Change	1,726,012	158,511	138,946	178,839	18 years
01/01/2009 Plan Amendment	32,419	2,977	2,610	3,359	18 years
01/01/2010 Actuarial Loss / (Gain)	(2,064,487)	(184,426)	(160,657)	(209,166)	19 years
01/01/2011 Actuarial Loss / (Gain)	2,127,105	185,291	160,431	211,205	20 years
01/01/2012 Actuarial Loss / (Gain)	2,534,152	215,722	185,676	247,085	21 years
01/01/2013 Actuarial Loss / (Gain)	3,154,281	262,907	224,985	302,536	22 years
01/01/2014 Actuarial Loss / (Gain)	(3,281,537)	(268,272)	(228,288)	(310,097)	23 years
01/01/2014 Assumption Change	3,751,522	306,694	260,984	354,509	23 years
01/01/2015 Actuarial Loss / (Gain)	(2,354,624)	(189,102)	(160,040)	(219,528)	24 years
01/01/2016 Actuarial Loss / (Gain)	282,842	22,347	18,812	26,050	25 years
01/01/2016 Assumption Change	2,679,902	211,732	178,239	246,819	25 years
01/01/2017 Actuarial Loss / (Gain)	(1,092,689)	(85,038)	(71,216)	(99,525)	26 years
01/01/2017 Assumption Change	108,300	8,428	7,058	9,864	26 years
01/01/2017 Plan Amendment	126,906	9,876	8,271	11,559	26 years
01/01/2018 Actuarial Loss / (Gain)	(600,053)	(46,053)	(38,374)	(54,105)	27 years



Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

Amortization Base	Current Unfunded Liabilities	Amortization Payment			Remaining Funding Period
		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%	
01/01/2019 Combined Bases *	1,610,281	250,664	236,005	265,465	8 years
01/01/2019 Actuarial Loss / (Gain)	2,030,070	153,816	127,541	181,372	28 years
01/01/2019 Assumption Change	(211,907)	(16,056)	(13,313)	(18,932)	28 years
01/01/2020 Actuarial Loss / (Gain)	449,331	33,643	27,763	39,810	29 years
01/01/2020 Assumption Change	(2,286,740)	(171,216)	(141,294)	(202,599)	29 years
01/01/2021 Actuarial Loss / (Gain)	(4,333,947)	(320,946)	(263,636)	(381,056)	30 years
01/01/2021 Assumption Change	711,728	52,706	43,295	62,578	30 years
01/01/2021 Assumption Change - 112.664(1)(b), F.S. Assumptions	35,117,358	N/A	2,136,201	N/A	30 years
01/01/2021 Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(23,926,005)	N/A	N/A	(2,103,659)	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, 2021)**

A. Effective Date:

April 9, 1954, as amended and restated as of October 25, 2017, and further amended through Resolution No. 20-08 effective July 8, 2020.

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.



**Outline of Principal Provisions of the Retirement Plan
(as of January 1, 2021)**

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.



**Outline of Principal Provisions of the Retirement Plan
(as of January 1, 2021)**

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,



**Outline of Principal Provisions of the Retirement Plan
(as of January 1, 2021)**

(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:

<u>Years of Credited Service</u>	<u>Percentage</u>
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 affecting calculations.

SECTION C

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of January 1, 2021)**

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 (2021)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	32.67	35.09	28.73
60	27.81	30.07	24.64	27.92
62	25.92	28.09	23.02	26.09

Sample Ages (2041)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Male	Female	Male	Female
	55	34.30	36.58	30.75
60	29.38	31.51	26.50	29.59
62	27.45	29.50	24.81	27.71

B. Interest to be Earned by Fund

7.35%, net of investment expenses, compounded annually - includes inflation of 2.60%.

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of January 1, 2021)**

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:

<u>Withdrawal Rates</u>	
<u>Service</u>	<u>Unisex Rates</u>
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, 2021)**

G. Assumed Retirement Age

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

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

**Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of January 1, 2021)**

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.

Vested Normal Retirement, Termination, Disability, and Death Benefits: Unit Credit Cost Method

Under this method, the actuarial present value of vested accrued benefits is an amount calculated to be the sum of the present values of each individual's vested accrued or earned benefit under the System as of the valuation date. Each individual's calculation is based on pay and service as of the valuation date.

L. Changes Since Previous Valuation

Interest to be Earned by Fund was 7.40%, net of investment expenses, compounded annually - includes inflation of 2.60%.

SECTION D

GLOSSARY

GLOSSARY

<i>Actuarial Accrued Liability</i>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<i>Actuarial Assumptions</i>	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.
<i>Actuarial Cost Method</i>	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.
<i>Actuarial Equivalent</i>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<i>Actuarial Present Value</i>	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.
<i>Actuarial Present Value of Future Benefits</i>	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.
<i>Actuarial Valuation</i>	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.
<i>Actuarial Value of Assets</i>	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.

<i>Amortization Method</i>	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.
<i>Amortization Payment</i>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<i>Amortization Period</i>	The period used in calculating the Amortization Payment.
<i>Annual Required Contribution</i>	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.
<i>Closed Amortization Period</i>	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.
<i>Employer Normal Cost</i>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<i>Equivalent Single Amortization Period</i>	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.
<i>Experience Gain/Loss</i>	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.
<i>Funded Ratio</i>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.



<i>GASB</i>	Governmental Accounting Standards Board.
<i>GASB No. 67 and GASB No. 68</i>	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.
<i>Normal Cost</i>	The annual cost assigned, under the Actuarial Cost Method, to the current plan year.
<i>Open Amortization Period</i>	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.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<i>Valuation Date</i>	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.