

CWA/ITU Negotiated Pension Plan

**Certificate of Actuarial Valuation
as of January 1, 2021**

Produced by Cheiron

November 2021

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**CWA/ITU NEGOTIATED PENSION PLAN
CERTIFICATE OF ACTUARIAL VALUATION AS OF JANUARY 1, 2021**

CERTIFICATION

November 11, 2021


This is to certify that Cheiron, Inc. (“Cheiron”) has prepared an actuarial valuation of the CWA/ITU Negotiated Pension Plan (“Plan”) as of January 1, 2021 in accordance with generally accepted actuarial principles and practices (see 2021 report dated November 11, 2021). It has been prepared at the request of the Board of Trustees to assist in administering the Plan and meeting filing requirements of federal government agencies.


This certification includes summary exhibits from the actuarial valuation report provided to the Board of Trustees. Please refer to the 2021 actuarial valuation report for more information about the Plan, its funding, and an assessment and disclosure of risk. This certification may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The results shown may not be applicable for other purposes. Future results may differ significantly from the results presented in this certification due to such factors as the following: plan experience differing from that anticipated by the assumptions (e.g., COVID-19); changes in assumptions; and changes in Plan provisions or applicable law.

The valuation assumes that the Plan is qualified as a multiemployer plan for the year and is based on financial information supplied by the auditor with respect to contributions and assets and reliance on the Plan Administrator with respect to the participant data. Cheiron does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Cheiron does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results. Adjustments for incomplete or apparently inconsistent data were made as described in Appendix C.

We are members of the American Academy of Actuaries, and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. The information supplied in this actuarial valuation is complete and accurate. Each prescribed assumption for the determination of Current Liability was applied in accordance with applicable law and regulations. In our opinion, each other assumption is reasonable (taking into account the experience of the Plan and reasonable expectations) and such other assumptions, in combination, offer our best estimate of anticipated experience under the Plan.


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Enrolled Actuary No. 20-07015


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**CWA/ITU NEGOTIATED PENSION PLAN
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SECTION I – SUMMARY

Summary of Principal Results	
Participant Counts	1/1/2021
Actives	2,125
Deferred Inactives	7,425
In Pay Status	<u>15,859</u>
Total	25,409
Financial Information	
Market Value of Assets (MVA)	\$ 574,855,319
Actuarial Value of Assets (AVA)	\$ 574,855,319
Unit Credit Actuarial Liability (PPA Liability)	\$ 1,013,395,051
Unfunded Actuarial Liability (AVA Basis)	438,539,732
Funding Ratio (AVA Basis - PPA Liability)	56.7%
Accumulated Benefits (FASB ASC 960)	\$ 1,047,496,211
Unfunded Actuarial Liability (MVA Basis)	472,640,892
Funding Ratio (MVA Basis - FASB ASC 960)	54.9%
Minimum Funding and Cash Flows	
Total Normal Cost (including Admin. Expenses)	\$ 4,967,722
ERISA Minimum Funding before Funding Deficiency	51,635,953
ERISA Funding Deficiency (Beginning of Year)	(272,931,139)
Prior Year Contributions (net from all sources)	\$ 19,750,413
Prior Year Benefit Payments	83,338,828
Prior Year Administrative Expenses	2,619,287
Prior Year Investment Income (net of investment expenses)	64,842,595

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SECTION II – ACCOUNTING DISCLOSURES

Present Value of Accumulated Benefits as of January 1, 2021 In Accordance with FASB ASC Topic 960		
	Amounts	Participants
1. Actuarial Present Value of Vested Benefits		
For Retirees and Beneficiaries	\$ 704,791,271	15,859
Deferred Inactives	236,013,246	7,425
Active Participants	<u>71,502,887</u>	<u>1,310</u>
Vested Benefits	\$ 1,012,307,404	24,594
2. Non-vested Benefits	\$ 1,087,647	815
3. Present Value of Expected Administrative Expenses*	\$ 34,101,160	
4. Accumulated Benefits	\$ 1,047,496,211	25,409
5. Market Value of Assets	\$ 574,855,319	
6. Funded Ratios		
Vested Benefits (without Administrative Expenses)	56.8%	
Accumulated Benefits (with Administrative Expenses)	54.9%	
Reconciliation of Present Value of Accumulated Benefits		
1. Actuarial Present Value at Start of Prior Year (without Administrative Expenses)		\$ 1,041,618,367
2. Increase / (decrease) over Prior Year due to:		
Accrual of Benefits		\$ 2,708,078
Benefit Payments		(83,338,828)
Interest Accrual		60,195,840
Plan Amendment		0
Assumption Change		0
Experience (Gains)/Losses		<u>(7,788,406)</u>
Total		\$ (28,223,316)
3. Actuarial Present Value at End of Prior Year		\$ 1,013,395,051
4. Present Value of Expected Administrative Expenses*		\$ 34,101,160
5. Actuarial Present Value at End of Prior Year (with Administrative Expenses)		\$ 1,047,496,211

* The present value of expected administrative expenses is estimated to be 3.37% of the Accrued Benefits liabilities.

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SECTION III – CURRENT LIABILITY

Liabilities/Net Surplus (Unfunded)	
	1/1/2021
Current Liability (RPA '94)	\$ 1,448,825,423
Market Value of Assets	<u>574,855,319</u>
Net Surplus (Unfunded)	\$ (873,970,104)
Percent Funded	39.7%
RPA '94 Prescribed Interest Rate	2.43%

Allocation of Current Liability by Type

The Plan's participants may qualify for a benefit on death, termination, or disability as well as on retirement. The value of the liabilities arising from each of these sources is shown in the following table.

Allocation of Liabilities by Type					
January 1, 2021					
Benefit Type	Retirement	Termination	Death	Disability	Total
RPA Current Liability Normal Cost	\$ 3,314,499	\$ 814,293	\$ 70,067	\$ 704,354	\$ 4,903,213
RPA Current Liability					
Actives	\$ 100,085,213	\$ 9,167,592	\$ 1,579,671	\$ 16,935,075	\$ 127,767,551
Terminated Vesteds	0	406,285,836	8,583,023	1,175,522	416,044,381
Retirees and Beneficiaries	<u>744,802,806</u>	<u>0</u>	<u>104,473,215</u>	<u>55,737,470</u>	<u>905,013,491</u>
Total	\$ 844,888,019	\$ 415,453,428	\$ 114,635,909	\$ 73,848,067	\$ 1,448,825,423
Vested RPA Current Liability					
Actives	\$ 49,176,756	\$ 59,272,636	\$ 1,545,825	\$ 16,564,380	\$ 126,559,597
Terminated Vesteds	0	406,285,836	8,583,023	1,175,522	416,044,381
Retirees and Beneficiaries	<u>744,802,806</u>	<u>0</u>	<u>104,473,215</u>	<u>55,737,470</u>	<u>905,013,491</u>
Total	\$ 793,979,562	\$ 465,558,472	\$ 114,602,063	\$ 73,477,372	\$ 1,447,617,469

**CWA/ITU NEGOTIATED PENSION PLAN
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SECTION IV – INFORMATION ON PLAN STATUS

As of January 1, 2021, the Plan was classified as being in Critical and Declining status under Code Section 432 as added by the Pension Protection Act of 2006 and amended by the Multiemployer Pension Reform Act of 2014. This determination was made on the basis of the following:

- The Plan was in Critical and Declining status for 2020;
- The Plan has an accumulated Funding Deficiency for the 2021 plan year, without regard to the use of the shortfall funding method but taking into account any extensions of the amortization periods under section 431(d) of the Code; and
- The Plan is projected to run out of assets during the 2031 plan year.

On March 11, the American Rescue Plan Act of 2021 (ARPA) was signed into law. The Act provides financial assistance to certain plans in order to pay full benefits through 2051. In addition, on July 12, 2021 the Pension Benefit Guaranty Corporation (PBGC) issued interim final regulations providing details on how the special financial assistance program will be administered. The Plan is eligible to receive financial assistance given its Critical and Declining PPA status and the financial assistance will extend the Plan's projected insolvency date by an estimated 17 years (from 2031 to 2048, based on current assumptions).

The Rehabilitation Period began January 1, 2012 and ends December 31, 2021. The Plan is not projected to emerge from Critical status by the end of its Rehabilitation Period. However, the Trustees adopted a Rehabilitation Plan to forestall insolvency (within the meaning of ERISA Section 4245) as they have determined that based on reasonable actuarial assumptions and upon exhaustion of all reasonable measures, the Plan cannot be reasonably expected to emerge from Critical status by the end of its Rehabilitation Period. To that end, the Plan was certified as making scheduled progress in meeting the requirements of its Rehabilitation Plan.

A certification of the Plan's status was submitted to the Board of Trustees and Secretary of the Treasury on March 31, 2021.

**CWA/ITU NEGOTIATED PENSION PLAN
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SECTION V – CONTRIBUTIONS

Funding Standard Account for 2021 Plan Year	
1. Charges for Plan Year	2021
(a) Prior Year Funding Deficiency	\$ 272,931,139
(b) Normal Cost Plus Expenses	4,967,722
(c) Amortization Charges	82,503,255
(d) Interest on (a), (b), and (c) to Year End	<u>21,624,127</u>
(e) Total Charges	\$ 382,026,243
2. Credits for Plan Year	
(a) Contributions and WL Payments (<i>Expected</i>)	<i>12,888,243</i>
(b) Amortization Credits	38,757,814
(c) Interest on (a) and (b) to Year End	<i>2,706,484</i>
(d) Full Funding Limit Credit	<u>0</u>
(e) Total Credits	<i>\$ 54,352,541</i>
3. Credit Balance at End of Year [2.(e) – 1.(e)]	<i>\$ (327,673,702)</i>

**CWA/ITU NEGOTIATED PENSION PLAN
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SECTION V – CONTRIBUTIONS

Schedule of Amortization Charges Required for Minimum Required Contribution As of January 1, 2021						
Type of Base	Date Established	Initial Amortization Years	1/1/2021 Outstanding Balance	Remaining Amortization Years	Beginning of Year Amortization Amount	
1. Combined Base	1/1/2006	15.66	\$ 13,295,709	0.66	\$ 13,295,709	
2. Plan Amendment	1/1/2007	30.00	492,971	16.00	46,019	
3. Change in Assumptions	1/1/2007	30.00	19,081,576	16.00	1,781,286	
4. Plan Amendment	1/1/2008	15.00	185,722	2.00	95,565	
5. Plan Amendment	1/1/2009	15.00	98,283	3.00	34,687	
6. Actuarial Loss	1/1/2009	15.00	61,049,574	3.00	21,546,458	
7. Actuarial Loss	1/1/2011	15.00	15,706,706	5.00	3,517,656	
8. Plan Amendment	1/1/2012	15.00	137,854	6.00	26,447	
9. Change in Assumptions	1/1/2012	15.00	14,551,612	6.00	2,791,749	
10. Actuarial Loss	1/1/2012	15.00	34,244,683	6.00	6,569,895	
11. Plan Amendment	1/1/2013	15.00	166,119	7.00	28,073	
12. Actuarial Loss	1/1/2013	15.00	31,047,221	7.00	5,246,834	
13. Plan Amendment	1/1/2014	15.00	112,053	8.00	17,023	
14. Change in Assumptions	1/1/2015	15.00	30,189,326	9.00	4,187,266	
15. Change in Asset Method	1/1/2017	10.00	18,142,852	6.00	3,480,734	
16. Actuarial Loss	1/1/2019	15.00	67,422,765	13.00	7,184,984	
17. Change in Assumptions	1/1/2019	15.00	56,862,806	13.00	6,059,650	
18. Change in Assumptions	1/1/2020	15.00	64,960,901	14.00	6,593,220	
Total Charges			\$ 427,748,733		\$ 82,503,255	

**CWA/ITU NEGOTIATED PENSION PLAN
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SECTION V – CONTRIBUTIONS

**Table V-5
Schedule of Amortization Credits Required for Minimum Required Contribution
As of January 1, 2021**

Type of Base	Date Established	Initial Amortization Years	1/1/2021 Outstanding Balance	Remaining Amortization Years	Beginning of Year Amortization Amount
1. Actuarial Gain	1/1/2007	15.00	\$ 512,507	1.00	\$ 512,507
2. Actuarial Gain	1/1/2008	15.00	148,643	2.00	76,486
3. Plan Amendment	5/1/2009	15.00	13,635,916	3.33	4,372,281
4. Plan Amendment	1/1/2010	15.00	52,283	4.00	14,235
5. Actuarial Gain	1/1/2010	15.00	19,742,786	4.00	5,375,094
6. Plan Amendment	1/1/2011	15.00	16,143,763	5.00	3,615,539
7. Actuarial Gain	1/1/2014	15.00	26,194,800	8.00	3,979,532
8. Actuarial Gain	1/1/2015	15.00	16,891,740	9.00	2,342,888
9. Plan Amendment	1/1/2016	15.00	308,678	10.00	39,566
10. Actuarial Gain	1/1/2016	15.00	4,600,185	10.00	589,639
11. Change in Assumptions	1/1/2016	15.00	6,696,397	10.00	858,326
12. Actuarial Gain	1/1/2017	15.00	4,399,651	11.00	526,268
13. Change in Assumptions	1/1/2017	15.00	12,753,626	11.00	1,525,537
14. Change in Funding Method	1/1/2017	10.00	6,122,257	6.00	1,174,564
15. Actuarial Gain	1/1/2018	15.00	30,442,466	12.00	3,425,554
16. Actuarial Gain	1/1/2020	15.00	63,501,284	14.00	6,445,075
17. Actuarial Gain	1/1/2021	15.00	39,993,158	15.00	3,884,723
Total Credits			\$ 262,140,140		\$ 38,757,814
Net Charge			\$ 165,608,593		\$ 43,745,441

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SECTION VI – EXPECTED BENEFIT PAYMENTS

Plan Year	Expected Annual Benefit Payments
2021	\$ 83,570,315
2022	83,384,349
2023	83,102,689
2024	82,662,982
2025	82,146,548
2026	81,192,426
2027	80,227,908
2028	78,884,459
2029	77,431,319
2030	75,753,835

Expected Annual Benefit Payments are payable mid-year and do not include additional benefit accruals, new hires or expected administrative expenses.

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Active Members											
By Age and Service as of January 1, 2021											
Age	Counts By Age/Service										Total
	Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	8	30	3	0	0	0	0	0	0	0	41
25 to 29	19	113	32	4	0	0	0	0	0	0	168
30 to 34	11	101	54	10	1	0	0	0	0	0	177
35 to 39	10	96	41	20	22	0	0	0	0	0	189
40 to 44	7	96	45	30	22	11	0	0	0	0	211
45 to 49	30	65	54	35	42	31	8	0	0	0	265
50 to 54	10	69	50	31	44	34	12	13	2	0	265
55 to 59	6	76	48	41	43	45	17	24	18	7	325
60 to 64	4	40	46	32	34	27	11	25	21	68	308
65 to 69	1	11	21	18	30	17	8	8	4	24	142
70 & up	1	8	10	3	4	3	0	1	1	3	34
Total	107	705	404	224	242	168	56	71	46	102	2,125

Average Age = 48.4

Average Service = 11.6

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX A – MEMBERSHIP INFORMATION

Age Distribution of Inactive Participants								
Participants Entitled to Future Benefits as of January 1, 2021								
	Terminated Vesteds		Terminal Disability with Deferred Benefits		Surviving Spouses and Beneficiaries with Deferred Benefits		Total	
Age	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*
Under 30	34	\$ 44	0	\$ 0	22	\$ 311	56	\$ 149
30-34	124	71	0	0	4	N/A	128	73
35-39	261	153	0	0	5	N/A	266	155
40-44	413	283	0	0	3	N/A	416	282
45-49	679	318	0	0	9	N/A	688	317
50-54	1,146	400	6	N/A	52	217	1,204	391
55-59	1,715	435	12	N/A	28	223	1,755	429
60-64	1,976	446	31	137	38	225	2,045	437
65 & Over	811	244	30	96	26	187	867	237
Total	7,159	\$ 373	79	\$ 107	187	\$ 223	7,425	\$ 366

* Averages are not shown for groups with less than 20 participants.

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX A – MEMBERSHIP INFORMATION

Age Distribution of Inactive Participants									
Pensioners and Beneficiaries Receiving Benefits as of January 1, 2021									
Age	Disability Retirements		Normal, Early Deferred Vested, & QDRO Retirements		Surviving Spouses and Beneficiaries Receiving Benefits		Total		
	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*	Number	Average Monthly Benefit*	
Under 55	3	N/A	0	\$ 0	74	\$ 312	77	\$ 329	
55-59	12	N/A	4	N/A	31	336	47	445	
60-64	66	\$ 460	152	\$ 968	86	317	304	673	
65-69	152	497	1,441	589	139	352	1,732	562	
70-74	189	516	2,345	514	331	358	2,865	496	
75-79	161	438	2,482	498	542	406	3,185	479	
80 & Over	254	374	5,196	392	2,199	254	7,649	352	
Total	837	\$ 455	11,620	\$ 471	3,402	\$ 296	15,859	\$ 433	

* Averages are not shown for groups with less than 20 participants.

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

This summary of plan provisions provides an overview of the major provisions of the pension plan used in the actuarial valuation. It is not intended to replace the more precise language of the plan document, and if there is any difference between the description of the plan herein and the actual text of the plan document, the plan document will govern.

1. Plan Year

January 1 through December 31

2. Pension Credit Year

January 1 through December 31

3. Normal Pension

Age Requirement: 65

Service Requirement: 10 years of service, or 5 years of service including one hour of service on January 1, 1989 or later.

Amount: 1.7% of all monies contributed to the plan prior to January 1, 1977, 1% of all monies contributed to the plan from January 1, 1977 to December 31, 1983, 1.3% of all monies contributed to the plan from January 1, 1984 to June 30, 1985, 1.7% of all monies contributed to the plan from July 1, 1985 to June 30, 1987, 3.0% of all monies contributed to the plan from July 1, 1987 to December 31, 1992, 3.0% of all monies credited to the Participant's account from January 1, 1993 to June 30, 1998, 3.25% of all monies credited to the Participant's account from July 1, 1998 to December 31, 2002, 2.50% of all monies credited to the Participant's account from January 1, 2003 to April 30, 2009 and 1.00% of all monies credited to the Participants' account on or after May 1, 2009.

Plus 1% of the average monthly contributions per year of past service from January 1, 1968 to December 31, 1976.

In addition, all benefits accrued through December 31, 1997 are increased by 12% and all benefits accrued through December 31, 1998 are increased by 10%.

4. Early Retirement

Age Requirement: 62

Service Requirement: 20 years of service (5 years of service for disabled participants)

Amount: Normal benefit accrued, reduced as follows:

Commencement Age	Reduction Factor
64	.9016
63	.8146
62	.7375

5. Vesting

Age Requirement: None

Service Requirement: 10 years of service, or 5 years of service including one hour of service on January 1, 1989 or later.

Normal Retirement Age: 65

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

6. Terminal Disability Lump Sum Benefit

Age Requirement: None

Service Requirement: Participants who are vested, have been awarded a Social Security Disability Pension with a date of entitlement prior to May 1, 2009, and provided two written statements from physicians stating that the disability will lead to the Participant's death within one year of application.

Amount: A lump sum equal to the greater of 36 times the monthly Normal Pension Benefit or 100% of employer contributions. If the Participant is still alive at his Normal Retirement Age, he will receive a monthly pension equal to his Normal Pension Benefit minus the actuarial equivalent of the lump sum received.

7. Pre-Retirement Death Benefit

Age Requirement: None

Service Requirement: Participants who are vested and have had at least \$250 of contributions made on their behalf.

Amount: Beneficiaries of married employees who die prior to retirement will receive a benefit under Option B on the date that the participant would have been eligible for a pension benefit. Beneficiaries of unmarried participants receive 100% of employer contributions payable in 60 equal monthly installments commencing at the participant's earliest retirement age.

8. Post-Retirement Death Benefit

Husband and Wife: If married, pension benefits are paid in the form of a 50% joint and survivor annuity (Option B), unless this form is rejected by employee and spouse. If not rejected, the benefit amount otherwise payable is reduced to reflect the joint and survivor coverage. If Option B has been rejected by employee and spouse or is not applicable, benefits are payable for the life of the employee without reduction, or in any other available optional form elected by the employee in an actuarially equivalent amount.

9. Optional Forms of Pension

- Life only
- 100% joint and survivor (Option A)
- 50% joint and survivor (Option B)
- Life with 10-year certain (Option C)
- 75% joint and survivor (Option D)

10. Participation

The earlier of the first day of the month following the month:

- i) during which the total employer contributions exceed \$250, provided contributions were made during each of twelve or more calendar months, or
- ii) during which the employee worked 1,000 hours during any 12-month consecutive period.

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX B – SUMMARY OF MAJOR PLAN PROVISIONS

11. Benefit Credit

Years of Past Service: The number of months prior to the employee's Applicable Effective Date provided such period of employment began prior to January 1, 1967, divided by 12.

Years of Future Service: In the fiscal year in which the Applicable Effective Date falls, an employee will be credited with the number of months between the Applicable Effective Date and the end of the fiscal year. Thereafter, a year of future service shall be granted at the rate of one year for each fiscal year during which employer contributions are made on his behalf or the Participant completed 1,000 hours of service.

12. Vesting Credit

The number of years of past service credit plus future service credit as outlined above.

13. Contribution Rate

Varies by employer based on rate per hour, shift, or percent of salary.

14. Changes in Plan Provisions since Last Valuation

None

**CWA/ITU NEGOTIATED PENSION PLAN
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APPENDIX C – ACTUARIAL ASSUMPTIONS AND MEHODS

A. Actuarial Assumptions

1. Valuation Date

January 1, 2021

2. Investment Return (or Discount Rate)

6.00% for funding and ASC 960 disclosure purposes

2.43% for determining RPA '94 current liability

All investment returns are net of investment expenses.

3. Mortality

Funding

Healthy Lives: RP-2014 Healthy Blue Collar Mortality Table, with full generational projection using Scale MP-2016.

Disabled Lives: RP-2014 Disabled Retiree Mortality Table, with full generational projection using Scale MP-2016.

In accordance with Actuarial Standard of Practice No. 35, we have considered the effect of mortality improvement prior to and subsequent to the measurement date in developing this assumption.

RPA '94 Current Liability

IRS 2021 Static Mortality Table.

4. Rates of Turnover

Terminations of employment for reasons other than death, disability or retirement are assumed to be in accordance with annual rates as shown below for illustrative ages.

Age	Rate (%)
20	11.91
25	11.59
30	10.83
35	9.41
40	7.73
45	5.96
50	3.84
55	1.41
60	0.14

Turnover rates do not apply at or beyond early retirement age.

5. Rates of Disability

Illustrative rates of disablement are shown below:

Age	Rate (%)
20	0.08
25	0.08
30	0.08
35	0.09
40	0.14
45	0.27
50	0.60
55	1.28
60	2.61

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APPENDIX C – ACTUARIAL ASSUMPTIONS AND MEHODS

6. Rates of Retirement

Age*	Rate (%)
62	30
63-64	15
65-66	30
67-68	25
69-70	20
71	75
72	100

**If eligible*

7. Rates of Retirement for Inactive Vested Participants

Age*	Rate (%)
62	50
63-64	25
65	55
66	25
67-71	10
72	100

**If eligible*

8. Delayed Retirement Factors

Inactive vested participants who are assumed to commence receipt of benefits after attaining normal retirement age qualify for delayed retirement increases.

9. Inactive Vested Participants

It is assumed that 90% of inactive participants past their required beginning date are either deceased or will not collect a benefit from this Plan.

Inactive vested participants who are assumed to commence receipt of benefits after attaining normal retirement age qualify for delayed retirement increases of 1% per month beyond normal retirement age.

10. Annuitants

Annuitant records that have been reported as not being in pay status for the last 3 years are not included for valuation purposes.

11. Definition of Active

Employees for whom contributions were made for 50 or more shifts, excluding those who have retired as of the valuation date and those who worked for an employer that withdrew prior to the valuation date.

12. Future Benefit Accrual

Same as experienced during the Plan Year preceding the valuation date.

13. Family Composition

65% assumed married with the male spouse three years older than his wife.

14. Form of Benefit

65% of the married population is assumed to elect the 100% joint and survivor form of payment. The remaining population is assumed to elect the life form of payment.

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APPENDIX C – ACTUARIAL ASSUMPTIONS AND MEHODS

15. Unknown Data for Participants

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

16. Administrative Expenses

\$2,650,000, payable mid-year, for the year beginning January 1, 2021 (or \$2,573,908 payable at the beginning of the year).

For financial disclosure under FASB ASC 960 the present value of future administrative expenses is assumed to be 3.37% of Accrued Liability. This assumes the expense assumption increases 2.0% per year.

17. Changes in Assumptions since Last Valuation

- The RPA '94 current liability interest rate was changed from 2.95% to 2.43% to comply with appropriate guidance and remains within the required corridor as prescribed by the IRS, in accordance with §412(l)(7)(C) of the Internal Revenue Code.
- The mortality table used to determine RPA '94 current liability is the static mortality table as described under Regulation 1.430(h)(3)-1(a)(3). The 2020 table was updated to 2021 in accordance with IRS Notice 2019-67.
- The annual administrative expense assumption was increased from \$2,598,000 to \$2,650,000.

- For financial disclosure under FASB Topic ASC 960, the future administrative expense assumption was increased from 3.07% of the Present Value of Accrued Benefits to 3.37%.

18. Justification of Assumptions

Economic

In accordance with Actuarial Standard of Practice No. 27, the justification for 6.00% discount rate is based on the Trustees risk preference, the Plan's current asset allocation, and the investment managers capital market outlook.

Demographic

In accordance with Actuarial Standard of Practice No. 35, the demographic assumptions used in this report were originally from the prior actuary's best estimates of demographic experience. These assumptions have been checked against the sources of liability gains and losses resulting from this valuation and are not producing significant deviations from actual plan experience. An experience study will be performed once a sufficient amount of recent data has been accumulated.

For purposes of calculating Current Liability per IRC §431(c)(6)-1, the static mortality table as described under Regulation §1.430(h)(3)-1(a)(3) was used.

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B. Actuarial Methods

Funding Method: Unit Credit Cost Method

The funding method for the valuation of liabilities used for this valuation is the Unit Credit method. This is one of a family of valuation methods known as accrued benefits methods. The chief characteristic of an accrued benefits method is that the funding pattern follows the pattern of benefit accrual.

Under the Unit Credit Funding Method, the normal cost for each participant is the present value of the benefit expected to be earned in the upcoming plan year. The Actuarial Liability, Accrued Liability, Present Value of Accrued Benefits, and the Present Value of Accumulated Benefits are the present value of each participant's current accrued benefit as of the valuation date.

One of the significant effects of this funding method is that, depending on the demographics of the population, the unit credit method tends to produce lower costs in the early years. There is a possibility that as the population ages, the annual cost could increase over time.

Asset Valuation Method

The Actuarial Value of Assets is equal to the Market Value of Assets.

Changes in Method since Last Valuation

None

Modeling Disclosures

In accordance with Actuarial Standard of Practice No. 56 (Modeling), the following disclosures are made regarding ProVal:

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities, normal costs and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal as it relates to the Plan and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in the output of ProVal that would affect the contents of this actuarial valuation report.