City of Rockville
Post-Employment Medical Benefits

Actuarial Valuation to Determine the City's Contribution for the Fiscal Years Ending June 30, 2025 and June 30, 2026

Submitted by:
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Bolton
Employee Benefits, Actuarial & Investment Consulting

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Ms. Stacey Webster
Chief Financial Officer
City of Rockville
111 Maryland Avenue
Rockville, MD 20850-2364

Dear Stacey:

The following sets forth the calculation of the Actuarially Determined Contribution for the City of Rockville's Other Post-Employment Benefit (OPEB) Plan (the Plan) to determine the FY 2025 and FY 2026 recommended contribution for the Plan.

Section I of the report provides an executive summary while Sections II through VII contain the development of the City's contribution for FY 2025 and FY 2026 along with a summary of the census and asset data, plan provisions, assumptions and actuarial methods. Section VIII provides a glossary of many of the terms used in this report.

Methodology, Reliance, and Certification

This report is prepared for the City; it contains the Actuarially Determined Contribution (ADC) for FY 2025 and FY 2026 and provides a 5-year projection of the ADC. This information is not intended for, nor should it be used for, any additional purposes.

The liability and ADC are based on July 1, 2023 valuation data. The plan provisions, participant data, valuation methods, and assumptions are as detailed in Section V through VII of this report.

The City is responsible for selecting the plan's funding policy and assumptions. For certain demographic assumptions, such as retirement, termination, disability, and salary scale, we relied upon the assumptions developed for the City's pension plan. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are found in Section VII. The City is solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The City is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton, Inc.'s actuaries have not provided any investment advice to the City.

Future medical care cost increase rates are unpredictable and could be volatile. They will depend upon the economy, future health care delivery systems and emerging technologies. The trend rate selected is based on an economic model developed by a health care economist for the Society of Actuaries. Future medical trend increases could vary significantly from the model. Model inputs will be updated periodically based on the best estimate of the economy at that time. Small changes in the model inputs can result in large actuarial gains or losses. The sensitivity of results to a one percent change in trend is shown in the report.

Methodology, Reliance, and Certification

This report is based on assets, plan provisions, census data, and premium rates submitted by the City. We have relied on this information for the purpose of preparing this report but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The information in this report was prepared for the internal use of the City, the plan and their auditors in connection with our actuarial valuations of the OPEB plan to provide the FY 2025 and 2026 ADC. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

We make every effort to ensure that our calculations are accurately performed. However, given the complexity of these calculations, there may be errors. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

This report provides certain financial calculations. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The COVID-19 pandemic has impacted many aspects of OPEB valuations, including increasing mortality rates, fluctuating medical plan costs, creating supply shortages which increased inflation, and causing new trends in turnover and retirement rates. The impact of this pandemic through the valuation date is already reflected in the census data and premium rates provided. However, since OPEB valuations are long-term estimates of future costs, we (along with the entire actuarial profession) are closely monitoring experience of all assumptions to determine what the long-term impacts of the COVID-19 pandemic will be. Given the current levels of uncertainty, we have not made any changes to the assumptions to account for any potential long-term impacts but will continue to monitor emerging experience, and make changes as necessary.

The Inflation Reduction Act (IRA), which was signed into law in August 2022, is expected to make numerous changes to prescription drug costs, including capping member out of pocket spending and other plan design changes beginning in 2025 and requiring the federal government to negotiate drug prices for certain high-cost drugs starting in 2026. However, since benefits under the Plan are limited to retirees before attaining Medicare eligibility, the impact of the IRA was not considered in setting the assumptions for this valuation.

Methodology, Reliance, and Certification

The analysis was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.

Bolton Partners is completely independent of the City of Rockville, its programs, activities, officers and key personnel. Bolton Partners, and anyone closely associated with us, does not have any relationship which would impair or appear to impair our independence on this assignment.

Tom Vicente meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.

Respectfully submitted,

Tom Vicente, FSA, EA, MAAA, FCA

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Section I. Executive Summary

Background

Bolton Partners has prepared the following report that sets forth the FY 2025 and FY 2026 Actuarially Determined Contribution (ADC) for the City of Rockville. This report does not provide GASB 74 or 75 accounting information.

This report has been prepared for budgeting purposes. The City has decided to determine the ADC by adding the Normal Cost of the plan to an amortization of the unfunded liability (the amortization is on a fixed declining period basis), offset by the expected value of the implicit subsidy included in retiree benefit payments. This offset is an adjustment to recognize that retiree premiums are subsidized by the active employee premiums (so the employer already ”paid” these amounts). The plan is in a “Surplus” position. The estimated implicit subsidy offset amount used in the projected FY 2026 ADC is equal to the same percentage of total expected benefit payments as determined for the FY 2025 ADC.

OPEB Trust Arrangement and Funding Policy

The City’s OPEB plan is a single employer plan. It is our understanding that the City’s contribution policy is to contribute an amount at least equal to the sum of normal cost and amortization payments less an implicit subsidy adjustment, as shown in this report. Based on the assumptions and methods disclosed in this report, the Plan remains over 100% funded for the 2025 fiscal year. The amortization portion of the policy is a fixed declining recognition period (currently 15 years). As the period shortens it may lead to unintended volatility in the annual contribution. We recommend reviewing the policy to see if it is still appropriate.

Assets

Asset information was provided by the City. The July 1, 2023 asset value is $9,499,466.

Funding Status

The total below compares the actuarial accrued liability to the market value of assets.

Funding Measures		7/1/2023
1. Actuarial Accrued Liability	$	8,694,000
2. Market Value of Assets	$	9,499,000
3. Funded Ratio (2 / 1)		109%

Section I. Executive Summary

Comparison with Previous Valuation

The ADC has increased since the prior valuation but still remains below $0 for FYE 2025. The primary driver of the increase was the investment experience over the prior 2 years that was below the assumed rate of return.

There were more minor impacts from the increased participation levels, changes in the plan subsidy level and assumption changes. The table below reconciles the prior and current ADC.

Comparison of Current and Previous Valuations		
Data as of	**July 1, 2021**	**July 1, 2023**
Data is used to calculate ADC for FY	2023	2025
Demographic Data *(with Medical Coverage and under age 65)*		
Employees	328	350
Disabled	1	2
Beneficiaries	1	1
Retirees	29	35
Reconciliation of Actuarially Determined Contribution (ADC)		
ADC Previous Valuation, FYE 2023		($285,000)
Increase (Decrease) due to Passage of Time / Demographic Experience		(87,000)
Increase (Decrease) due to Investment Experience		327,000
Increase (Decrease) due to Claims Experience		5,000
Increase (Decrease) due to Updating the Trend		27,000
Increase (Decrease) due to Updating the Mortality Improvement Scale		1,000
Increase (Decrease) due to Updating the Demographic Assumptions		(87,000)
Increase (Decrease) due to Plan Change/Increased Aetna Subsidy		25,000
Increase (Decrease) due to Decreasing the Discount Rate		27,000
ADC Current Valuation, FYE 2025		($47,000)

Plan Provisions

Employees who retire prior to Medicare eligibility may choose between several medical plans offered by Aetna and Kaiser, all of which are packaged with prescription benefits. Rockville pays 80% of the published rates of the lowest cost Kaiser plan and 84% of the published rates of the lowest cost Aetna plan. Participants can buy up to more expensive plans by paying any cost difference. Surviving spouses receive no explicit subsidy but are permitted to remain in the plan and pay 100% of the published costs. The City makes no contribution toward the benefits after Medicare eligibility, generally age 65.

More details regarding the Plan provisions are given in Section VI.

Demographic Data

Demographic data as of July 1, 2023 was provided to us by the City. This data included current medical coverage for current employees and retirees. Although we have not audited this data, we have no reason to believe that it is inaccurate.

Section I. Executive Summary

Cost Information

Monthly premium rates for 2023 were provided by the City. Although we have not audited the rate information, we have no reason to believe that it is inaccurate.

Implicit Subsidy

The published insurance rates for persons prior to Medicare eligibility are based on a blend of active and pre-Medicare retiree experience, and because there are significantly more active employees, the rates are primarily based on their healthcare usage. However, because retirees tend to use healthcare at a higher rate than active employees, using these blended rates creates an implicit subsidy for the retiree group. Actuarial Standards of Practice (ASOP) 6 require that the per capita cost assumption we use for this valuation be based on just the retiree cost. Therefore, we have age-adjusted the premium rates provided to determine a retiree per capita cost.

Demographic Assumptions

Demographic assumptions mirror those used for the City of Rockville Pension Plan. Section VII details the assumptions including the percentage of future retirees electing coverage.

Discount Rate Assumption

The discount rate assumption is 6.75%. This rate is the expected long-term rate of return on the OPEB trust.

Other Economic Assumptions

The healthcare cost trend assumption was developed using the 2022 version of the Society of Actuaries (SOA) Getzen Long-Term Healthcare Cost Trend Model with baseline assumptions. This model was designed to estimate the trend after 2024. The trend rate for 2023 and 2024 was set to 7.5%. This rate is greater than the past valuation due to recent inflation, which we estimate will result in higher medical costs as providers renew their contracts. The trend is expected to decrease to 5.01% by 2030 and 4.64% by 2050, ultimately leveling off at 3.94% in 2075.

The SOA Long-Run Medical Cost Trend Model is based on an econometric analysis of historical U.S. medical expenditures and the judgments of experts in the field. The long-run baseline projection, tolerance ranges and input variables have been developed under the guidance of an SOA Project Oversight Group.

Payroll is assumed to increase at 2.5% per annum. This assumption is used to determine the level percentage of payroll amortization factor.

Section II. Actuarially Determined Contribution

Actuarially Determined Contribution for FY 2025 and FY 2026

Below is a summary of the calculation of the Plan's Actuarially Determined Contribution (ADC). For retirees we use the subsidy percent found in the data. Item (5) shows the impact of a 1% increase in trend.

	7/1/2021		7/1/2023	
	FYE 2023	FYE 2024	FYE 2025	FYE 2026
Expected Rate of Return	7.00%	7.00%	6.75%	6.75%
1) Actuarial Accrued Liability				
a. Actives	$5,671,774	$6,397,275	$4,555,000	$5,160,000
b. Retirees in Pay Status	$2,157,211	$1,723,216	$4,139,000	$3,527,000
c. Total (a + b)	**$7,828,985**	**$8,120,491**	**$8,694,000**	**$8,687,000**
2) Assets	$12,426,877	$12,712,000	$9,499,000	$9,518,000
3) Amortization of Unfunded Accrued Liability				
a. Unfunded Accrued Liability	($4,597,892)	($4,591,509)	($805,000)	($831,000)
b. Amortization Period	17	16	15	14
c. Amortization Factor	11.52	11.05	10.74	10.21
d. Amortization Amount	($399,123)	($415,521)	($75,000)	($81,000)
4) Actuarially Determined Contribution (ADC)				
a. Normal Cost	$328,477	$341,616	$298,000	$309,000
b. Amortization of Unfunded Accrued Liability	($399,123)	($415,521)	($75,000)	($81,000)
c. Subtotal	($70,646)	($73,905)	$223,000	$228,000
d. Implicit subsidy benefit payments	$214,396	$236,288	$270,000	$303,000
e. Total (c-d)	**(285,042)**	**(310,193)**	**($47,000)**	**($75,000)**
5) 1% Sensitivity ADC	$43,216	$53,874	$333,000	$353,000

Section III. Liabilities

Liabilities as of Measurement Date

Below is a summary of the Plan's liabilities Item (4) shows the impact of a 1% increase in trend.

		7/1/2021 FYE 2023	7/1/2023 FYE 2025
1)	Discount Rate	7.00%	6.75%
2)	Actuarial Accrued Liability		
	a. Actives	$5,671,774	$4,555,000
	b. Retirees in Pay Status	$2,157,211	$4,139,000
	c. Total	**$7,828,985**	**$8,694,000**
3)	Normal Cost		
	a. Normal Cost for Benefits	$328,477	$298,000
	b. Expense Load	$0	$0
	c. Total	**$328,477**	**$298,000**
4)	1% Increase in Trend Sensitivity		
	a. Actuarial Accrued Liability	$8,532,128	$9,351,000
	b. Total Normal Cost	**$381,302**	**$347,000**

Section IV. Assets

Asset Reconciliation

Below is a reconciliation of the trust assets over the last two fiscal years.

	June 30, 2022	June 30, 2023
Market Value of Assets		
Beginning of the Year Amount	12,426,877	9,167,161
Investment Income	(3,008,051)	869,401
Employer Contribution	135,053	0
Benefit Payments (net of retiree payments)	(381,718)	(537,096)
Administrative Expense	(5,000)	0
End of Year amount as of Measurement Date	9,167,161	9,499,466
Estimated Return	-24.5%	9.8%

Section V. Valuation Data

Memberships

The following table summarizes the memberships, ages, and coverage as the current and prior valuation data collection dates.

	7/1/2021	7/1/2023
1) Number of Participants under age 65		
(a) Employees	332	350
(b) Disabled	1	2
(c) Beneficiary	1	1
(d) Retirees	29	35
(e) Total	363	388
2) Employee Statistics		
(a) Average Age	45.24	45.07
(b) Average Service	12.39	10.99
3) Retiree Statistics (In Pay Status)		
(a) Average Age – Retirees (Pre-Medicare)	60.17	59.06

Section V. Valuation Data

Active Age - Service Distribution

Shown below is the distribution of active participants under age 65 with medical coverage based on age and service as of the valuation data collection date.

Age	Years of Service as of 07/1/2023							
	Under 1	1-4	5-9	10-14	15-19	20-24	25+	Total
Under 25	3	2	0	0	0	0	0	5
25 – 29	9	16	7	0	0	0	0	32
30 – 34	17	14	10	3	0	0	0	44
35 – 39	11	13	17	9	5	0	0	55
40 – 44	2	3	11	6	9	4	0	35
45 – 49	5	11	10	8	8	9	2	53
50 – 54	2	6	8	5	4	4	5	34
55 – 59	1	3	3	3	11	14	15	50
60 – 64	3	1	11	4	7	4	12	42
65 & Up	0	0	0	0	0	0	0	0
Totals	**53**	**69**	**77**	**38**	**44**	**35**	**34**	**350**

The following table shows averages in total for active participants in this valuation.

Averages	Amount
Age:	45.07
Service:	10.99

Section VI. Summary of Principal Plan Provisions

General Eligibility Rules

Eligible participants are assumed to be employees, former employees or beneficiaries of the City of Rockville who had health coverage as an active employee.

The Rockville Employee Retirement System administers the OPEB plan and stipulates the age and service requirements for retirements. Generally, retirees must be vested in the retirement system, meet early or normal retirement requirements and elect to remain in the plan upon retirement. Below is a summary of the eligibility requirements

Administrative Personnel and Union Employees

Hired prior to July 1, 2011

First of the month coincident with or immediately following

- Attainment of age 60 with 10 years of service or .
- Age plus Service greater than or equal to 85

Hired after June 30, 2011

First of the month coincident with or immediately following the later of:

- Attainment of age 65 with 10 years of service or .
- Age plus Service greater than or equal to 85

Police Employees

First of the month coincident with or immediately following the earlier of:

- Attainment of age 50 with 25 years of service or .
- Attainment of age 60

Plan Benefits

Retirees are eligible for medical, Rx, and dental benefits through the Plan. The City of Rockville expressly reserves the right to add, modify or eliminate the benefits provided under the Plan.

Medical and Rx

Pre-Medicare Retirees

Pre-Medicare retirees may continue medical and prescription drug coverage through the same plans they were eligible for as an active employee. Retirees may also continue health insurance coverage for their dependents if they were covered under their active medical plan at the time of retirement. This coverage may continue until the spouse reaches age 65, even if the retiree is deceased.

There are six medical plans available to pre-Medicare retirees: the Aetna Open Access 30/40, Aetna Open Access 30/40 90%/500, Aetna Health Reimbursement, Aetna POS, Kaiser HMO, and Kaiser POS.

Post-Medicare Retirees

No benefits are offered to retirees over Medicare age.

Section VI. Summary of Principal Plan Provisions

Plan Benefits

Dental and Vision

Retirees may choose between the Low PPO Dental Plan and the High PPO Dental Plan, both offered through Guardian. Vision coverage is not offered through the plan.

Life Insurance

None

Retiree Contribution

Rockville pays 80% of the published rates for the lowest cost Kaiser plan and 84% of the published rates for the lowest cost Aetna plan. Retirees and their families pay the remaining 20% and 16% respectively for each plan. If the retiree elects a more costly plan, they pay the additional costs.

Surviving spouses receive no explicit subsidy but are permitted to remain in the plan and pay 100% of the published costs.

Changes in Plan Provisions Since Prior Valuation

The retiree contribution for the Aetna plan was lowered from 20% to 16% of the lowest cost plan.

Section VII. Valuation Methods and Assumptions

Actuarial Valuation Date
July 1, 2023

Party Responsible for Assumptions and Methods
City of Rockville

Cost Method
This valuation uses the Projected Unit Credit method, with linear pro-ration to assumed benefit commencement.

Amortization Method
Liabilities are amortized over a closed period (currently 15 years for FY 2025) as a level percentage of payroll.

Asset Valuation Method
Market value of assets.

Expected Return on Assets
6.75%

Payroll Growth
2.50%

Spousal Coverage and Age
For future retirees, 45% of active employees who are currently covering a spouse and are expected to elect coverage at retirement are assumed to continue covering a spouse at retirement. Employees who are not currently covering a spouse are not expected to elect spousal coverage at retirement.

Actual ages were used for spouses of current retirees if their date of birth was provided in the census data. For participants where it was not provided and for future retirees, females were assumed to be 3 years younger than male spouses. Spouses were assumed to be the opposite gender of retirees.

Election rate
90% of Police and 70% of Non-Police active members will elect coverage in the plan if eligible upon retirement.

We assume that everyone will continue in their current respective elected plan.

Section VII. Valuation Methods and Assumptions

Medical Cost Trend Assumptions

The healthcare cost trend assumption was developed using the Society of Actuaries (SOA) Getzen Long-Term Healthcare Cost Trend Model. The current valuation uses the 2022 version of the model (released in October 2021) with baseline assumptions. The following assumptions were used as input variables into the model:

Rate of Inflation	2.5%
Rate of Growth in Real Income / GDP per capita	1.4%
Excess Medical Growth	1.0%
Expected Health Share of GDP in 2031	19.0%
Health Share of GDP Resistance Point	20.0%
Year for Limiting Cost Growth to GDP Growth	2075

The SOA Long-Term Healthcare Cost Trend Model is designed to estimate the trend after 2024. The trend rate for 2023 and 2024 was set to 7.5%. This 7.5% trend is greater than initial trends in the past valuation due to recent inflation, which we estimate will result in higher medical costs as providers renew their contracts.

The trend for selected years is shown below.

Year	Healthcare Trend Rate
2023	7.50%
2024	7.50%
2025	5.20%
2030	5.01%
2040	4.81%
2050	4.64%
2060	4.54%
2070	4.20%
2075+	3.94%

The SOA Long-Term Medical Cost Trend Model and its baseline projection are based on an econometric analysis of historical U.S. medical expenditures and the judgments of experts in the field. The long-run baseline projection and input variables have been developed under the guidance of an SOA Project Oversight Group.

Section VII. Valuation Methods and Assumptions

Decrement Assumptions

Below is a summary of decrements used in this valuation. Sample Retirement, Disability, and Termination rates are illustrated in the tables below.

Mortality

Decrements	Description
1) Active Healthy	Pub-2010 General and Safety Employees Headcount-Weighted mortality table projected generationally using scale MP-2021
2) Inactive Healthy	Pub-2010 General and Safety Retirees Headcount-Weighted mortality table projected generationally using scale MP-2021
3) Inactive Disabled	Pub-2010 General and Safety Disabled Retirees Headcount-Weighted mortality table projected generationally using scale MP-2021

Projection to the year of the valuation is assumed to be current mortality experience. The generational projection beyond the year of the valuation is assumed to account for future mortality improvements. The mortality assumption is based on a standard mortality table with the initial projection scale produced with the table. The mortality improvement scale was updated to mirror the pension assumptions.

Salary Increases

Salary increases are as follows:

Age	Admin	Union
<=35	4.75%	5.50%
36 - 44	4.75%	4.25%
45 - 54	4.25%	4.25%
>= 55	3.75%	3.25%

Age	Police
<=25	9.00%
26 - 30	7.00%
31 - 35	6.50%
36 - 40	5.75%
41 - 45	5.00%
46 - 54	4.50%
>=55	2.50%

Disability

None.

Section VII. Valuation Methods and Assumptions

Termination

Sample Termination rates are as follows:

Service	Admin/Union Rates	Police Rates
0	17.00%	18.00%
1	15.00%	10.00%
2	13.00%	9.00%
3	10.00%	8.00%
4	8.00%	8.00%
5	7.00%	6.00%
6	5.00%	5.00%
7	4.00%	4.00%
8	3.00%	3.00%
9	3.00%	2.00%
>=10	2.00%	1.50%

Retirement

Sample Retirement rates are as follows:

Age	Admin/Union Rates
<=49	0.00%
50 - 58	2.50%
59 - 63	15.00%
64 - 69	20.00%
>=70	100.00%

Age	Police Rates
50 (or younger with 25 YOS)	25.00%
51 - 61	15.00%
>= 62	100.00%

Other Assumptions

For participants whose date of hire differed from the prior valuation, the prior valuation's date of hire was used.

For current retirees, the actual subsidy provided by the City was used to value the plan's liabilities.

Section VII. Valuation Methods and Assumptions

Per Capita Cost Assumption

We received premium rates for FY2023 for the City for each plan and coverage tier option offered to active employees and retirees. Administrative fees were assumed to be included in the premium rates provided.

The average premium was calculated by blending the FY2023 premiums for each plan based on enrollment as of the valuation date and trending to the midpoint of the projection period using 7.50% trend. The average premium was then age adjusted to determine a retiree per capita cost. Costs for pre-Medicare spouses were assumed to be 2.35 times the cost for a retiree in the same age band.

The following chart shows the average premium for FY2023 as well as the total (medical and Rx) expected per capita cost for retirees at various age bands.

	FYE 2023 Expected Single[1]
1. Total Costs	
a. Under 50	$9,247
b. Age 50-54	$11,537
c. Age 55-59	$14,262
d. Age 60-64	$17,512
e. Age 65 and Older	N/A
2. Assumed Pre-Medicare Costs	$11,026

Changes in Methods and Assumptions Since Prior Valuation

The expected return on assets was lowered from 7.00% to 6.75%.

The per capita claims assumption was updated to reflect the most recent plan experience.

The mortality improvement scale was updated to MP-2021.

The trend assumption was updated to the 2022 version of the Society of Actuaries (SOA) Getzen Long-Term Healthcare Cost Trend Model.

The retirement, termination and salary scale assumption were updated to the pension assumption used in the 2023 valuation.

[1] Excludes the dental premium that was added to the average Premium for FY 2023 valuation. The dental premium included in the valuation was $19.32/month for individual coverage and $38.19/month for family coverage. All participants were assumed to elect the Guardian High PPO.

Section VIII. Glossary

Actuarially Determined Contribution (ADC):
A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

Annual Required Contributions of the Employer(s) (ARC):
The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters under GASB 45 accounting.

Covered Group:
Plan members included in an actuarial valuation.

Decrement:
Assumptions used to determine the probability of key change-in-status events (e.g., turnover, date of retirement, death).

Defined Benefit OPEB Plan:
An OPEB plan having terms that specify the amount of benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

Employer's Contributions:
Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

Funded Ratio:
The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Healthcare Cost Trend Rate:
The rate of change in per capita health claim costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

Investment Return Assumption (Discount Rate):
The rate used to adjust a series of future payments to reflect the time value of money.

Section VIII. Glossary

Level Percentage of Projected Payroll Amortization Method:
Amortization payments are calculated so that they are a constant percentage of the projected payroll of active plan members over a given number of years. The dollar amount of the payments generally will increase over time as payroll increases due to inflation; in dollars adjusted for inflation, the payments can be expected to remain level. This method cannot be used if the plan is closed to new entrants.

Normal Cost or Normal Actuarial Cost:
That portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Other Post-employment Benefits:
Post-employment benefits other than pension benefits. Other post-employment benefits (OPEB) include post-employment healthcare benefits, regardless of the type of plan that provides them, and all post-employment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-as-you-go (PAYGO):
A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Payroll Growth Rate:
An actuarial assumption with respect to future increases in total covered payroll attributable to inflation; used in applying the level percentage of projected payroll amortization method.

Plan Liabilities:
Obligations payable by the plan at the reporting date, including, primarily, benefits and refunds due and payable to plan members and beneficiaries, and accrued investment and administrative expenses. Plan liabilities do not include actuarial accrued liabilities for benefits that are not due and payable at the reporting date.

Plan Members:
The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Post-employment:
The period between termination of employment and retirement as well as the period after retirement.

Section VIII. Glossary

Post-employment Healthcare Benefits:
Medical, dental, vision, and other health-related benefits provided to terminated or retired employees and their dependents and beneficiaries.

Select and Ultimate Rates:
Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 2000, 7.5% for 2001, and 7% for 2002 and thereafter, then 8% and 7.5% are select rates, and 7% is the ultimate rate.

Appendix 1 – The Actuarial Valuation Process

Step 1 – Determining the Present Value of Benefits

The first step of the actuarial valuation process is to determine the Present Value of Benefits (PVB). The PVB represents the estimated amount needed to provide all future OPEB benefits.

For a retiree it is based on the following assumptions:

- The current cost of medical benefits
- How fast medical costs will increase (medical trend)
- Mortality

For an employee it *also* considers the following assumptions:

- How many employees will leave before becoming eligible for the benefit
- At what age will employees retire
- What percentage of eligible retirees will elect coverage
- What percent of eligible retirees will have spouse coverage

Based on these assumptions, the actuary estimates a payment stream for each year in the future.

The streams of payments are discounted to the valuation date using a discount rate. The discount rate is similar to the rate of return you would expect to earn on funds in a bank or other investment vehicle. The sum of the discounted payment stream is the PVB.

Step 2 – The Actuarial Funding Method

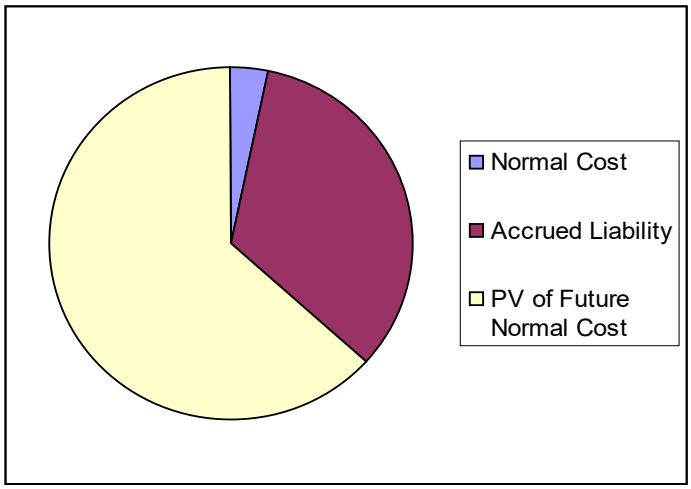
If the entire present value of benefits was deposited into a trust when every new employee was hired, there would be (in the absence of actuarial losses caused by experience different than that assumed) no cost after the first year. The goal of an actuarial funding method is to spread the present value of benefits throughout the employee's career.

Accordingly, the second step of an actuarial valuation is to divide the Present Value of Benefits into three components:

- The normal cost (the liability accrual for the year)
- The accrued liability (the liability amount allocated for past service)
- The present value of future normal costs (the liability amount allocated to the future)

Appendix 1 – The Actuarial Valuation Process

The following chart illustrates the 3 components of the Present Value of Benefits:



For a retired employee, the present value of benefits equals the accrued liability.

Step 3 – Determining the Actuarially Determined Contribution (ADC)

The Actuarial Determined Contribution is equal to the sum of the:

- Normal Cost and
- An Amortization Payment of the Unfunded Accrued Liability

The unfunded accrued liability is equal to the accrued liability minus the assets (if any).

The amortization payment is not a straight line amortization payment. It is more like a mortgage payment on a house. It includes interest on the unfunded liability and a principal payment, and is designed to be a level payment. This could mean level as in a dollar payment, or as a level percentage of payroll. If it is a level percentage of payroll, the payment amount will increase as payroll increases.

Appendix 2 – 10 Year Cash Flow Projections

Below is a summary of the Plan's expected benefit payments (including implicit subsidy). For retirees we use the subsidy percent found in the data.

Fiscal year ending	Expected Benefit Payments	
	Total	Implicit
2024	863,000	270,000
2025	917,000	303,000
2026	1,008,000	338,000
2027	881,000	284,000
2028	921,000	311,000
2029	954,000	323,000
2030	835,000	287,000
2031	770,000	262,000
2032	780,000	277,000
2033	684,000	233,000

Please note:

- *The expected benefit payment stream shown above assumes that the covered population is a closed group, i.e. there are no new entrants or re-entrants.*
- *The Plan's actual benefit payments may be greater or lesser than the amounts shown, depending on actual demographic experience and claims experience.*
- *Implicit benefit payments are the amount of the retiree premium that is assumed to be subsidized by active employee rates because the same rates are charged to active employees and retired participants under age 65.*

Appendix 3 – 5 Year ADC Projections

The following table shows the estimated ADC for FY 2025 to FY 2031. The projections reflect data as of July 1, 2023, and an expected return on assets of 6.75%. Any deviation in assumptions, census demographics, or asset performance would impact these results.

	FYE 2025	FYE 2026	FYE 2027	FYE 2028	FYE 2029	FYE 2030	FYE 2031
Assumptions:							
Trust Investment Return	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Discount Rate	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Salary Scale	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Ultimate Trend	3.94%	3.94%	3.94%	3.94%	3.94%	3.94%	3.94%
Amortization Factor	10.74	10.21	9.65	9.08	8.48	7.86	7.21
# Years to Amortize	15	14	13	12	11	10	9
Unfunded Accrued Liability:							
APBO BOY	8,694,000	8,687,000	8,635,000	8,498,000	8,496,000	8,464,000	8,410,000
Assets BOY	9,499,000	9,518,000	9,516,000	9,455,000	9,466,000	9,464,000	9,440,000
Unfunded Funding Target	(805,000)	(831,000)	(881,000)	(957,000)	(970,000)	(1,000,000)	(1,030,000)
Percent Funded	**109%**	**110%**	**110%**	**111%**	**111%**	**112%**	**112%**
ADC (Actuarially Determined Contribution):							
Normal Cost	298,000	309,000	321,000	334,000	347,000	361,000	375,000
Amortization of Unfunded Target	(75,000)	(81,000)	(91,000)	(105,000)	(114,000)	(127,000)	(143,000)
Implicit Subsidy Benefit Payments	(270,000)	(303,000)	(338,000)	(284,000)	(311,000)	(323,000)	(287,000)
Total (ADC)	**(47,000)**	**(75,000)**	**(108,000)**	**(55,000)**	**(78,000)**	**(89,000)**	**(55,000)**
Trust Assets:							
Beginning of Year Amount	9,499,000	9,518,000	9,516,000	9,455,000	9,466,000	9,464,000	9,440,000
Return on Investments	641,000	642,000	642,000	638,000	639,000	639,000	637,000
Employer Contributions with Interest	0	0	0	0	0	0	0
Implicit Subsidy Paid by Employer	270,000	303,000	338,000	284,000	311,000	323,000	287,000
Benefit Payments with Interest (Explicit and Implicit)	(892,000)	(947,000)	(1,041,000)	(910,000)	(952,000)	(986,000)	(863,000)
End of Year Amount	9,518,000	9,516,000	9,455,000	9,467,000	9,464,000	9,440,000	9,501,000
Benefit Payments	**863,000**	**917,000**	**1,008,000**	**881,000**	**921,000**	**954,000**	**835,000**