April 13, 2022
Agenda Item 14

AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING
March 9, 2022, 9:00 a.m.

The Board of Retirement will hold its meeting via teleconferencing as permitted by Government Code Section 54953(e). The meeting is accessible telephonically at 669-900-6833, Webinar ID: 811 9772 0927, Passcode: 879812, or via the web at:
https://us06web.zoom.us/j/81197720927?pwd=SmswRU5Bc2FFSlJPQVdseWYxSTF4UT09

Passcode: 879812

Persons who wish to address the Board of Retirement during public comment may call in during the meeting by dialing the phone number and passcode above. Access via Zoom is also available at the weblink above. To indicate you wish to speak during public comment, please select *9 on your phone or "raise your hand" in the Zoom app.

Public comments are limited to any item that is within the subject matter jurisdiction of the Board of Retirement. Comments will be received in real time via telephone or Zoom, subject to a three-minute time limit per speaker.

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.

2. Roll Call.

3. Accept comments from the public.

4. Recognition of Tuan Le for 5 years of service.

5. Approve minutes from the February 9, 2022 meeting.

6. Approve the following routine items:
    a. Certifications of membership.
    b. Service and disability allowances.
    c. Death benefits.
    d. Investment liquidity report.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

7. Accept the following routine items:
    a. Disability applications and authorize subpoenas as required.
    b. Investment asset allocation report.

CLOSED SESSION

8. The Board will go into closed session pursuant to Govt. Code Section 54957 to consider recommendations from the medical advisor and/or staff regarding the following disability retirement applications:

Member	Type Sought	Recommendation
a. Vincent Richards	Service Connected	Service Connected

9. The Board will continue in closed session pursuant to Govt. Code Section 54956.9(d)(1) to confer with legal counsel regarding pending litigation:

    a. *Wilmot v. CCCERA, et al.,* Contra Costa County Superior Court, Case No. N22-0302

OPEN SESSION

10. Consider and take possible action regarding non-service connected disability retirement allowance of deceased member Marie Rulloda.

11. Consider and take possible action to approve Sagitec's use of subcontractors on the pension administration system project, subject to CCCERA's review and approval of the subcontracting arrangement.

12. Presentation of the Central Contra Costa Sanitary District focused employer audit report.

13. Consider and take possible action to authorize the Board to conduct teleconference meetings under Government Code section 54953 (e) and to make related findings.

14. Presentation of Semi-Annual Disability Retirement Report.

15. Report from Audit Committee Chair on February 23, 2022 Audit Committee meeting.

16. Miscellaneous
    a. Staff Report
    b. Outside Professionals' Report
    c. Trustees' comments

CCCERA
Contra Costa County Employees' Retirement Association

AGENDA

RETIREMENT BOARD MEETING

REGULAR MEETING
March 23, 2022, 9:00 a.m.

The Board of Retirement will hold its meeting via teleconferencing as permitted by Government Code Section 54953(e). The meeting is accessible telephonically at 669-900-6833, Webinar ID: 857 2696 8214, Passcode: 298325, or via the web at: https://us06web.zoom.us/j/85726968214?pwd=STNJMHVPc1dGbXhzNnNpbFBrbTlsZz09
Passcode: 298325

Persons who wish to address the Board of Retirement during public comment may call in during the meeting by dialing the phone number and passcode above. Access via Zoom is also available at the weblink above. To indicate you wish to speak during public comment, please select *9 on your phone or "raise your hand" in the Zoom app.

Public comments are limited to any item that is within the subject matter jurisdiction of the Board of Retirement. Comments will be received in real time via telephone or Zoom, subject to a three-minute time limit per speaker.

THE RETIREMENT BOARD MAY DISCUSS AND TAKE ACTION ON THE FOLLOWING:

1. Pledge of Allegiance.

2. Roll Call.

3. Accept comments from the public.

4. Approve minutes from the February 23, 2022 meeting.

5. Review of total portfolio performance for period ending December 31, 2021.
    a. Presentation from Verus
    b. Presentation from staff

6. Update on private equity and real estate allocations.

7. Information session from CCCERA's actuary, Segal—Considerations when approaching Full Funding.

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

8. Miscellaneous

   a. Staff Report
   b. Outside Professionals' Report
   c. Trustees' comments

The Retirement Board will provide reasonable accommodations for persons with disabilities planning to attend Board meetings who contact the Retirement Office at least 24 hours before a meeting.

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Via Email

March 16, 2022

Gail Strohl
Chief Executive Officer
Contra Costa County Employees' Retirement Association
1200 Concord Avenue, Suite 300
Concord, CA 94520

Re: Contra Costa County Employees' Retirement Association (CCCERA) Five-Year Projection of Employer Contribution Rate as of December 31, 2020 Based on Estimated 13.9% Net Market Value Investment Return for 2021

Dear Gail:

As requested, we have updated our five-year projection of estimated employer contribution rate changes for CCCERA. This projection is derived from the December 31, 2020 Actuarial Valuation results and incorporates an estimated net market value investment return of 13.9% for the 2021 calendar year provided by CCCERA. Key assumptions and methods are detailed below. **It is important to understand that these results are entirely dependent on those assumptions used in the December 31, 2020 valuation being met and remaining unchanged[1] in future valuations, except as noted above. Actual results as determined in future actuarial valuations will differ from these results. In particular, actual investment returns, actual salary and COLA levels different than assumed can have a significant impact on future contribution rates.**

Results

In the next several years, assuming the above highlighted conditions were to come true, CCCERA is likely to become fully funded, with 100% funded ratio and no Unfunded Actuarial Accrued Liability (UAAL). As we pointed out to the Board during our presentation of results in the December 31, 2020 valuation, at that time the employer UAAL contribution rates would be reduced to 0% of payroll before considering the 0.16% of payroll that would continue to be charged for the payment of administrative expense. However, the timing of when that is expected to take place varies among the different cost groups based on the current level of funding and the expected annual UAAL contributions for each cost group as of the most recent valuation.

[1] It should be noted that the actuarial assumptions are currently under review in the triennial experience study and any new assumptions approved by the Board will be used in the December 31, 2021 valuation.

In addition, Central Contra Costa Sanitary District ("the District") made a prepayment in the amount of $70.8 million towards the District's UAAL on June 25, 2021. Consistent with CCCERA's Actuarial Funding Policy, this prepayment has been used to reduce the District's UAAL contribution rate effective July 1, 2021 that was originally provided in the December 31, 2019 valuation. In preparing this projection, we have included the District's contribution rates effective July 1, 2022 in Cost Group #3 after reflecting this prepayment as provided in the December 31, 2020 valuation. It should be noted that this prepayment has the impact of reducing the average employer contribution rate (for all employers combined) as of the December 31, 2020 Actuarial Valuation by 1.37% of payroll from 35.26% to 33.89% of payroll.

The estimated contribution rate changes shown below apply to the recommended average employer contribution rate. Estimated contribution rate changes for each cost group are shown in the attached exhibit.

Aside from the reduction in the Sanitary District's employer rate in the December 31, 2020 valuation as discussed above, the other changes in the contribution rate starting in the December 31, 2021 valuation are due to:

1. Recognition of deferred investment gains and losses under the actuarial asset smoothing methodology;
2. Gains due to investment income earned on the excess of the Market Value of Assets (MVA) over the Actuarial Value of Assets (AVA) (and losses when the opposite occurs);
3. Contribution gains and losses which occur from delaying the implementation of new rates until 18 months after the actuarial valuation date;
4. The December 31, 2007 UAAL restart charge and Pension Obligation Bonds (POB) credit amortization layers dropping off as they become fully amortized; and
5. The reduction in UAAL rate due to reaching full funding. For cost groups that are projected to reach fully funding, all outstanding UAAL layers of the cost group would be fully amortized and there would be no UAAL payments in accordance with CCCERA's Actuarial Funding Policy. However, as noted above, 0.16% of payroll would continue to be included in the UAAL rate for the payment of administrative expense

This update also reflects an estimated net market value investment return of 13.9% in 2021 (i.e., 6.9% more than the 7.00% assumed return) as provided by CCCERA. According to CCCERA, the estimated net market value investment return for the six-month period ending June 30 2021 was 8.8% and the estimated net market value investment return for the six-month period ending December 31, 2021 was 4.7% for an annual market value investment return of 13.9% in 2021.

The following table provides the year-to-year rate changes and the cumulative rate change over the five-year projection period from the above components in aggregate.[2] To obtain the estimated average employer contribution rate at each successive valuation date, these cumulative rate changes should be added to the rates developed in the December 31, 2020

[2] We no longer show the rate changes by component as the rate changes due to full funding could overwrite the impact of the other rate change components.

Actuarial Valuation, after adjusting for the Sanitary District's prepayment as discussed earlier in this letter. These rate changes represent the average rate, expressed as a percent of payroll, for the aggregate plan and they become effective 18 months following the actuarial valuation date shown in the table.

	Valuation Date (12/31)				
Rate Change	**2021**	**2022**	**2023**	**2024**	**2025**
Incremental Rate Change	**(1.82%)**	**(12.39%)**	**(3.48%)**	**(0.40%)**	**(0.01%)**
Cumulative Rate Change	**(1.82%)**	**(14.21%)**	**(17.69%)**	**(18.09%)**	**(18.10%)**

If we use the average employer contribution rate as of the December 31, 2020 Actuarial Valuation of 33.89% of payroll after accounting for the Sanitary District's prepayment and based on the cumulative rate changes above, the average employer contribution rate is projected to progress as follows:

	Valuation Date (12/31)				
Employer Contribution Rate[3]	**2021**	**2022**	**2023**	**2024**	**2025**
Average Normal Cost Rate[4]	15.53%	15.53%	15.53%	15.53%	15.53%
Average UAAL Rate	16.54%	4.15%	0.67%	0.27%	0.26%
Average Employer Contribution Rate	32.07%	19.68%	16.20%	15.80%	15.79%

For each individual cost group, we have estimated the rate change due to investment related gains and losses over the next five valuations by allocating a portion of the total investment related gains and losses based on each cost group's proportional share of the Valuation Value of Assets as of the December 31, 2020 valuation. The actual rate changes by cost group may differ from those shown in the exhibit if there are changes to their proportional share of the Valuation Value of Assets in future valuations.

In addition, the projected rate changes for the December 31, 2022 Actuarial Valuation reflect the December 31, 2007 UAAL restart charge and POB credit amortization layers dropping off as they become fully amortized. That impact has been explicitly calculated and reflected for each cost group as it varies significantly by cost group depending on the UAAL and POB layers established for each cost group. In particular, the impact of POB credit layers dropping off varies significantly by employer depending on whether the employer issued POBs or made additional contributions towards their UAAL. Therefore, we also show results separated out for employers that are in a cost group that has an employer with a POB credit.

[3] The Normal Cost and UAAL rates shown include an explicit administrative expense load of 0.49% and 0.16% of payroll, respectively.

[4] As noted on next page, the Normal Cost projections do not reflect any changes in the employer contribution rates that could result due to future changes in the demographics of CCCERA's active members or decreases in the employer contribution rates that would result from new hires going into the PEPRA tiers.

For most employers without a POB credit, there is a significant reduction in the employer rate that is projected to occur in the December 31, 2022 Actuarial Valuation due to that UAAL restart layer becoming fully amortized. For other employers that have a POB credit, the reduction in the employer rate is not as significant since their current contribution rates have already been reduced to reflect that they paid off a portion of that UAAL layer through the issuance of the POB or additional UAAL payments. For some other employers, such as the Contra Costa Fire Protection District in General Cost Group #5 and the Moraga-Orinda Fire Protection District in Safety Cost Group #10, since they already paid off that UAAL restart amortization layer via POBs and additional UAAL payments, they will not see a reduction in their employer contribution rate at that time.

The projected rate changes that are due to the 18-month rate delay for each cost group have also been determined based on the different incremental rate changes from the prior valuations. This is because those changes can vary significantly based on the rate changes for each cost group, especially for the December 31, 2022 and December 31, 2023 Actuarial Valuations.

We have also projected the year when each cost group would become fully funded. In accordance with CCCERA's Actuarial Funding Policy, all outstanding UAAL layers of the cost group would be fully amortized and there would be no UAAL payments (other than the continuation of the payment of the 0.16% administrative expense) when the cost group reaches full funding. The reduction in UAAL rate due to full funding has been reflected.

These estimated rate changes for each cost group are shown in the attached exhibit. We have also included the projected UAAL rate for the projection period in the exhibit.

Key Assumptions and Methods

The projection is based upon the following assumptions and methods:

- December 31, 2020 non-economic assumptions remain unchanged.
- December 31, 2020 retirement benefit formulas remain unchanged.
- December 31, 2020 1937 Act statutes remain unchanged.
- UAAL amortization method remains unchanged.
- December 31, 2020 economic assumptions remain unchanged, including the 7.00% investment earnings assumption.
- The net market value investment return of 13.9% was earned during 2021. Moreover, for purposes of determining the Actuarial Value of Assets, we reflected a net market value investment return of 8.8% for the six-month period ending June 30 2021 and 4.7% for the six-month period ending December 31, 2021 as reported by CCCERA.
- We have assumed that returns of 7.00% are actually earned each year on a market value basis for years after 2021.
- Active payroll grows at 3.25% per annum.

- Deferred investment gains and losses are recognized per the asset smoothing schedule prepared by the Association as of December 31, 2020. They are funded as a level percentage of the Association's total active payroll base.
- All other actuarial assumptions used in the December 31, 2020 Actuarial Valuation are realized.
- No changes are made to actuarial methodologies, such as adjusting for the contribution rate delay in advance and the continuation of the current pooling arrangement among different employers within a cost group.
- The projections do <u>not</u> reflect any changes in the employer contribution rates that could result due to future changes in the demographics of CCCERA's active members or decreases in the employer contribution rates that might result from new hires going into the PEPRA tiers.
- The projections assumed a fixed administrative expense loads of 0.49% and 0.16% payroll that applied to employer Normal Cost and UAAL rates, respectively.
- On July 30, 2020, the California Supreme Court issued a decision in the case of Alameda County Deputy Sheriffs' Association et al. v. Alameda County Employees' Retirement Association (ACERA) and Board of Retirement of ACERA. That decision has important implications for CCCERA and its members, In particular, the decision requires pension systems like CCCERA to exclude certain pay items from a legacy member's compensation earnable. While the CCCERA Board of Retirement has recently taken actions to comply with AB197 and the Alameda decision, the decision was made after the date of the December 31, 2020 Actuarial Valuation Report. It should be noted that neither the December 31, 2020 assets provided by CCCERA nor the liabilities we calculated in that report using the membership data provided by CCCERA reflect the financial impact of the California Supreme Court decision. As such, these projections do not include any impact of the Alameda decision.
- It is important to note that these projections are based on plan assets as of December 31, 2020, further projected using an estimated net market value investment return of 13.9% for the 2021 calendar year. Due to the COVID-19 pandemic, market conditions have changed significantly since the onset of the Public Health Emergency. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the Plan Year. Moreover, these projections do not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after December 31, 2020.

Finally, we emphasize that projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Unless otherwise noted, all of the above calculations are based on the December 31, 2020 Actuarial Valuation results including the participant data, actuarial assumptions, methods, and models on which that valuation was based. That valuation and these projections were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, Enrolled Actuary.

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 opinion herein.

Please let us know if you have any questions.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA	Andy Yeung, ASA, MAAA, FCA, EA
Senior Vice President & Actuary	Vice President & Actuary

AW/jl
Enclosure

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2020 Valuation with Estimated 13.9% Net Market Value Return for 2021

	CG#1 & 2 County and Courts with POB	CG#1 & 2 Moraga-Orinda FD with POB	CG#1 & 2 First Five with Prepayment	CG#1 & 2 LAFCO with Prepayment	CG#1 & 2 Other District without POB
Estimated Incremental Rate Change as of 12/31/2021	-1.43%	-1.43%	-1.43%	-1.43%	-1.43%
Estimated Incremental Rate Change as of 12/31/2022*	-11.34%	-10.84%	-11.79%	-16.07%	-20.14%
Estimated Incremental Rate Change as of 12/31/2023	0.00%	0.00%	0.00%	0.00%	0.00%
Estimated Incremental Rate Change as of 12/31/2024	0.00%	0.00%	0.00%	0.00%	0.00%
Estimated Incremental Rate Change as of 12/31/2025	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative Rate Change as of 12/31/2021	-1.43%	-1.43%	-1.43%	-1.43%	-1.43%
Cumulative Rate Change as of 12/31/2022*	-12.77%	-12.27%	-13.22%	-17.49%	-21.57%
Cumulative Rate Change as of 12/31/2023	-12.77%	-12.27%	-13.22%	-17.49%	-21.57%
Cumulative Rate Change as of 12/31/2024	-12.77%	-12.27%	-13.22%	-17.49%	-21.57%
Cumulative Rate Change as of 12/31/2025	-12.77%	-12.27%	-13.22%	-17.49%	-21.57%
Employer UAAL rate as of 12/31/2020**	**12.93%**	**12.43%**	**13.38%**	**17.65%**	**21.73%**
Employer UAAL rate as of 12/31/2021**	11.50%	11.00%	11.95%	16.22%	20.30%
Employer UAAL rate as of 12/31/2022**	0.16%	0.16%	0.16%	0.16%	0.16%
Employer UAAL rate as of 12/31/2023**	0.16%	0.16%	0.16%	0.16%	0.16%
Employer UAAL rate as of 12/31/2024**	0.16%	0.16%	0.16%	0.16%	0.16%
Employer UAAL rate as of 12/31/2025**	0.16%	0.16%	0.16%	0.16%	0.16%
Year to Reach Full Funding (Valuation as of 12/31)	2022	2022	2022	2022	2022

* Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

** The employer UAAL rates include an explicit administrative expense load of 0.16% of payroll.
These rates do not include any employer subvention of member contributions or any member subvention of employer contributions.

Segal

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2020 Valuation with Estimated 13.9% Net Market Value Return for 2021

	CG#3 Enhanced CCC Sanitary District***	CG#4 Enhanced Housing Authority	CG#5 Enhanced CCCFPD	CG#6 Non-Enhanced District
Estimated Incremental Rate Change as of 12/31/2021	0.00%	-1.99%	-1.32%	0.00%
Estimated Incremental Rate Change as of 12/31/2022*	0.00%	-24.41%	0.63%	0.00%
Estimated Incremental Rate Change as of 12/31/2023	0.00%	0.00%	-1.67%	0.00%
Estimated Incremental Rate Change as of 12/31/2024	0.00%	0.00%	-1.31%	0.00%
Estimated Incremental Rate Change as of 12/31/2025	0.00%	0.00%	-1.44%	0.00%
Cumulative Rate Change as of 12/31/2021	0.00%	-1.99%	-1.32%	0.00%
Cumulative Rate Change as of 12/31/2022*	0.00%	-26.40%	-0.69%	0.00%
Cumulative Rate Change as of 12/31/2023	0.00%	-26.40%	-2.37%	0.00%
Cumulative Rate Change as of 12/31/2024	0.00%	-26.40%	-3.68%	0.00%
Cumulative Rate Change as of 12/31/2025	0.00%	-26.40%	-5.12%	0.00%
Employer UAAL rate as of 12/31/2020**	**0.16%**	**26.56%**	**19.93%**	**0.16%**
Employer UAAL rate as of 12/31/2021**	0.16%	24.57%	18.61%	0.16%
Employer UAAL rate as of 12/31/2022**	0.16%	0.16%	19.24%	0.16%
Employer UAAL rate as of 12/31/2023**	0.16%	0.16%	17.56%	0.16%
Employer UAAL rate as of 12/31/2024**	0.16%	0.16%	16.25%	0.16%
Employer UAAL rate as of 12/31/2025**	0.16%	0.16%	14.81%	0.16%
Year to Reach Full Funding (Valuation as of 12/31)	2021	2022	After 2025	2020

* Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

** The employer UAAL rates include an explicit administrative expense load of 0.16% of payroll.
These rates do not include any employer subvention of member contributions or any member subvention of employer contributions.

*** The December 31, 2021 valuation is the first valuation that the prepayment made by CCC Sanitary District will be reflected in CCCERA's financial statements.

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2020 Valuation with Estimated 13.9% Net Market Value Return for 2021

	CG#7 & 9 Combined Enhanced County	CG#8 Enhanced CCCFPD	CG#10 Enhanced Moraga-Orinda FD	CG#11 Enhanced San Ramon Valley FD
Estimated Incremental Rate Change as of 12/31/2021	-3.60%	-4.23%	-4.10%	-3.56%
Estimated Incremental Rate Change as of 12/31/2022*	-20.23%	-1.21%	0.22%	-46.07%
Estimated Incremental Rate Change as of 12/31/2023	-18.13%	-32.08%	-4.42%	0.00%
Estimated Incremental Rate Change as of 12/31/2024	0.00%	0.00%	-33.79%	0.00%
Estimated Incremental Rate Change as of 12/31/2025	0.00%	0.00%	0.00%	0.00%
Cumulative Rate Change as of 12/31/2021	-3.60%	-4.23%	-4.10%	-3.56%
Cumulative Rate Change as of 12/31/2022*	-23.83%	-5.44%	-3.89%	-49.63%
Cumulative Rate Change as of 12/31/2023	-41.96%	-37.53%	-8.31%	-49.63%
Cumulative Rate Change as of 12/31/2024	-41.96%	-37.53%	-42.10%	-49.63%
Cumulative Rate Change as of 12/31/2025	-41.96%	-37.53%	-42.10%	-49.63%
Employer UAAL rate as of 12/31/2020**	**42.12%**	**37.69%**	**42.26%**	**49.79%**
Employer UAAL rate as of 12/31/2021**	38.52%	33.46%	38.16%	46.23%
Employer UAAL rate as of 12/31/2022**	18.29%	32.25%	38.37%	0.16%
Employer UAAL rate as of 12/31/2023**	0.16%	0.16%	33.95%	0.16%
Employer UAAL rate as of 12/31/2024**	0.16%	0.16%	0.16%	0.16%
Employer UAAL rate as of 12/31/2025**	0.16%	0.16%	0.16%	0.16%
Year to Reach Full Funding (Valuation as of 12/31)	2023	2023	2024	2022

* Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

** The employer UAAL rates include an explicit administrative expense load of 0.16% of payroll.
These rates do not include any employer subvention of member contributions or any member subvention of employer contributions.

Contra Costa County Employees' Retirement Association
Estimated Employer Rate Change by Cost Group (CG) Based on December 31, 2020 Valuation with Estimated 13.9% Net Market Value Return for 2021

	CG#12 Non-Enhanced Rodeo-Hercules FPD	CG#13 Enhanced East CCCFPD	Total Plan
Estimated Incremental Rate Change as of 12/31/2021	-2.97%	-4.24%	-1.82%
Estimated Incremental Rate Change as of 12/31/2022*	-25.06%	-33.48%	-12.39%
Estimated Incremental Rate Change as of 12/31/2023	-5.42%	0.00%	-3.48%
Estimated Incremental Rate Change as of 12/31/2024	-32.34%	0.00%	-0.40%
Estimated Incremental Rate Change as of 12/31/2025	0.00%	0.00%	-0.01%
Cumulative Rate Change as of 12/31/2021	-2.97%	-4.24%	-1.82%
Cumulative Rate Change as of 12/31/2022*	-28.03%	-37.72%	-14.21%
Cumulative Rate Change as of 12/31/2023	-33.45%	-37.72%	-17.69%
Cumulative Rate Change as of 12/31/2024	-65.79%	-37.72%	-18.09%
Cumulative Rate Change as of 12/31/2025	-65.79%	-37.72%	-18.10%
Employer UAAL rate as of 12/31/2020**	**65.95%**	**37.88%**	**18.36%**
Employer UAAL rate as of 12/31/2021**	62.98%	33.64%	16.54%
Employer UAAL rate as of 12/31/2022**	37.92%	0.16%	4.15%
Employer UAAL rate as of 12/31/2023**	32.50%	0.16%	0.67%
Employer UAAL rate as of 12/31/2024**	0.16%	0.16%	0.27%
Employer UAAL rate as of 12/31/2025**	0.16%	0.16%	0.26%
Year to Reach Full Funding (Valuation as of 12/31)	2024	2022	

* Includes the impact of the December 31, 2007 UAAL charge and POB credit layers dropping off due to being fully amortized.

** The employer UAAL rates include an explicit administrative expense load of 0.16% of payroll.

These rates do not include any employer subvention of member contributions or any member subvention of employer contributions.