# Kentucky Employees Retirement System

GASB No. 74 Accounting Valuation Report As of June 30, 2022





December 1, 2022

Board of Trustees Kentucky Retirement Systems Perimeter Park West 1260 Louisville Road Frankfort, KY 40601

Re: GASB No. 74 Reporting – Actuarial Information – Kentucky Employees Retirement System

Dear Members of the Board:

This report provided herein contains certain information for the **Kentucky Employees Retirement System** (**KERS**) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 74, "Financial Reporting for Postemployment Benefit Plans Other than Pension Plans" for the fiscal year ending June 30, 2022. A separate report will be provided at a later date with additional accounting information determined in accordance with GASB Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions".

The liability calculations presented in this report were performed for the purpose of satisfying the requirements of GASB No. 74 and are not applicable for other purposes, such as determining the plan's funding requirements. The plan's liability for other purposes may produce significantly different results. This report may be provided to parties other than the Board of Trustees of the Kentucky Retirement Systems only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The total OPEB liability, net OPEB liability, and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2021. The total OPEB liability was rolled-forward from the valuation date to the plan's fiscal year ending June 30, 2022, using generally accepted actuarial principles. GASB No. 74 requires the disclosure of a 10-year history of certain information in the Required Supplementary Information within the annual financial report. The exhibits provided in this report include the applicable information for historical years that were calculated in accordance with this accounting standard. Information disclosed for years prior to June 30, 2017 were prepared by the prior actuary.

#### **Actuarial Assumptions**

The discount rate used to calculate the total OPEB liability increased from 5.26% to 5.72% for the non-hazardous plan and from 5.01% to 5.59% for the hazardous plan (see further discussion on the calculation of the single discount rate later in this letter). There were no other material assumption changes and it is our opinion that these procedures are reasonable and appropriate, and comply with applicable requirements under GASB No. 74.

Board of Trustees December 1, 2022 Page 2

#### **Plan Provisions**

Senate Bill 209 passed during the 2022 legislative session and increased the insurance dollar contribution for members hired on or after July 1, 2003 by \$5 for each year of service a member attains over certain thresholds, depending on a member's retirement eligibility requirement. This increase in the insurance dollar contribution does not increase by 1.5% annually and is only payable for non-Medicare retirees. Additionally, it is only payable when the member's applicable insurance fund is at least 90% funded. The increase is first payable January 1, 2023.

To model the financial impact of the requirement for the funds to be 90% funded, we have assumed the increase in the insurance dollar contribution is payable in all calendar years for the KERS hazardous plan, as it was above 90% funded as of the June 30, 2021 Actuarial Valuation. For the KERS non-hazardous insurance plan, we have assumed the increases begin in the year 2047, which is our best estimate of when the fund will begin approaching 90% funded.

Senate Bill 209 also allows members receiving the insurance dollar contribution to participate in a medical insurance reimbursement plan that would provide the reimbursement of premiums for health plans other than those administered by KPPA. In general, allowing members to receive reimbursement to participate in health plans other than those administered by KPPA would increase the utilization of the dollar benefit. The current election assumption for future members receiving the dollar insurance benefit is 100%, so there is no immediate change in the total OPEB liability for active members due to this benefit change. For current retirees and beneficiaries eligible for the dollar insurance benefit who have not yet elected coverage, we have assumed 50% would elect coverage under this benefit change.

The total OPEB liability as of June 30, 2022 is determined using these updated benefit provisions. There were no other plan provision changes that would materially impact the total OPEB liability and it is our opinion that these procedures are reasonable and appropriate, and comply with applicable requirements under GASB No. 74.

### **Implicit Employer Subsidy for Non-Medicare Retirees**

The fully-insured premiums paid for the Kentucky Employees' Health Plan are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees. GASB No. 74 requires that the liability associated with this implicit subsidy be included in the calculation of the Total OPEB Liability.

#### **Single Discount Rate**

Single discount rates of 5.72% for the non-hazardous plan and 5.59% for the hazardous plan were used to measure the total OPEB liability for the fiscal year ending June 30, 2022. They are based on the expected rate of return on OPEB plan investments of 6.25% and a municipal bond rate of 3.69%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2022.



Board of Trustees December 1, 2022 Page 3

Based on the stated assumptions and the projection of cash flows as of each fiscal year ending, the plan's fiduciary net position and future contributions were projected to be sufficient to finance the future benefit payments of the current plan members. Therefore, the long-term expected rate of return on insurance plan investments was applied to all periods of the projected benefit payments paid from the retirement system. However, the cost associated with the implicit employer subsidy is not currently being included in the calculation of the plan's actuarial determined contributions, and it is our understanding that any cost associated with the implicit subsidy will not be paid out of the plan's trust. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy.

The projection of cash flows used to determine the single discount rate must include an assumption regarding actual employer contributions made each future year. Future contributions are projected assuming that the entire actuarially determined employer contribution is received by each plan each future year, calculated in accordance with the current funding policy.

### 401(h) Subaccount

Based on guidance issued by GASB in connection with GASB Statement No. 74, the 1% of pay member contributions for Tier 2 and Tier 3 members to a 401(h) subaccount is considered an OPEB asset. As a result, the reported fiduciary net position includes these 401(h) assets. Additionally, these member contributions and associated investment income and administrative expenses are included in the reconciliation of the fiduciary net position.

#### **Additional Disclosures**

This report is based upon information, furnished to us by the Kentucky Public Pensions Authority (KPPA), which includes benefit provisions, membership information, and financial data. We did not audit this data and information, but we did apply a number of tests and concluded that it was reasonable and consistent. GRS is not responsible for the accuracy or completeness of the information provided by KPPA. Please see the "Actuarial Valuation Report as of June 30, 2021" for additional discussion of the nature of the actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions. These reports should be considered together as a complete report for the fiscal year ending June 30, 2022.



Board of Trustees December 1, 2022 Page 4

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Both of the undersigned are Enrolled Actuaries, members of the American Academy of Actuaries and meet all of the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. In addition, both are independent of KPPA and are experienced in performing valuations for large public retirement systems. This communication shall not be construed to provide tax advice, legal advice or investment advice.

Sincerely,

**Gabriel Roeder Smith & Company** 

Daniel J. White, FSA, EA, MAAA Senior Consultant and Actuary Janie Shaw, ASA, EA, MAAA Consultant and Actuary



## **Table of Contents**

				Page
	COVER LETTER			
SECTION 1	SUPPORTING EXH	IIBITS		
	Ехнівіт 1	_	SCHEDULE OF EMPLOYERS' NET OPEB LIABILITY	2
	Ехнівіт 2	_	DEVELOPMENT OF THE SINGLE DISCOUNT RATE	4
	Ехнівіт 3	_	SCHEDULE OF CHANGES IN EMPLOYERS' NET OPEB LIABILITY	5
	Ехнівіт 4	_	SCHEDULE OF EMPLOYERS' CONTRIBUTIONS	7
	Ехнівіт 5	_	SENSITIVITY OF THE NET OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE AND HEALTHCARE TREND RATE	10

### APPENDIX 1 DEVELOPMENT OF BASELINE CLAIMS COST



## SECTION 1

**EXHIBIT 1a** 

# Schedule of the Employers' Net OPEB Liability – KERS Non-Hazardous Plan (\$ in thousands)

Year	Total OPEB Liability	n Fiduciary t Position	Liab	Net OPEB ility/(Asset)	Plan Fidu Net Pos as a Perce of the 1 OPEB Lia	ition entage Total ability	Covered Employee Payroll <sup>1</sup>	Net OPEB Liability as a Percentage of Covered Employee Payroll	
(1)	(2)	(3)	(4	) = (2) - (3)	(5) = (3)	/ (2)	(6)	(7) = (4) / (6)	
2022	\$ 3,576,530	\$ 1,364,419	\$	2,212,111	38.15	5%	\$ 1,437,132	153.93%	
2021	3,698,804	1,419,477		2,279,327	38.38	8%	1,452,345	156.94%	
2020	3,599,557	1,060,649		2,538,908	29.47	<b>7</b> %	1,482,431	171.27%	
2019	3,217,985	995,089		2,222,896	30.92	2%	1,515,953	146.63%	
2018	3,262,117	891,205		2,370,912	27.32	2%	1,573,898	150.64%	
2017	3,353,332	817,370		2,535,962	24.37	<b>7</b> %	1,593,097	159.18%	



<sup>&</sup>lt;sup>1</sup> Based on derived compensation using the provided employer contribution information.

**EXHIBIT 1b** 

# Schedule of the Employers' Net OPEB Liability – KERS Hazardous Plan (\$ in thousands)

**Plan Fiduciary Net Position Net OPEB Liability** Covered Total as a Percentage as a Percentage **Employee OPEB Plan Fiduciary Net OPEB** of the Total of Covered Liability/(Asset) Payroll<sup>1</sup> Year Liability **Net Position OPEB Liability Employee Payroll** (1) (4) = (2) - (3)(6) (7) = (4) / (6)(2) (3) (5) = (3) / (2)\$ 595,789 \$ 588,162 \$ 2022 7,627 98.72% \$ 188,648 4.04% 622,152 633,677 (11,525)101.85% 172,725 -6.67% 2021 564,524 521,755 182,209 2020 42,769 92.42% 23.47% 507,204 534,053 (26,849)105.29% 151,448 -17.73% 2019 485,904 519,072 106.83% -17.43% 2018 (33,168)190,317 6,031 171,087 2017 494,869 488,838 98.78% 3.53%



<sup>&</sup>lt;sup>1</sup> Based on derived compensation using the provided employer contribution information. For 2021 and 2022, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021 and FYE2022.

## **EXHIBIT 2**

## **Development of Single Discount Rate**

	KERS	KERS
	Non-Hazardous	Hazardous
Single Discount Rate	5.72%	5.59%
Long-Term Expected Rate of Return	6.25%	6.25%
Long-Term Municipal Bond Rate <sup>1</sup>	3.69%	3.69%



<sup>&</sup>lt;sup>1</sup> Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2022.

## **EXHIBIT 3a**

## Schedule of the Employers' Net OPEB Liability – KERS Non-Hazardous Plan

(\$ in thousands)

Change in the Net OPEB Liability		2022		2021		2020		2019	 2018		2017
Total OPEB liability											
Service Cost Interest on the total OPEB liability Benefit Changes	\$	62,548 190,531 21,884	\$	58,831 191,624 1,382	\$	59,600 179,811 0	\$	61,345 186,820 0	\$ 66,360 191,178 1,865	\$	46,992 192,911 0
Difference between actual and expected experience Assumption Changes		(37,249) (206,907)		(231,631) 220,184		288,235 13,767		(302,189) 158,004	(191,147) (11,235)		(3,921) 414,835
Benefit Payments <sup>1,2</sup>		(153,081)	_	(141,143)		(159,841)	_	(148,112)	 (148,236)	_	(139,601)
Net Change in Total OPEB Liability		(122,274)		99,247		381,572		(44,132)	(91,215)		511,216
Total OPEB Liability - Beginning Total OPEB Liability - Ending (a)	\$	3,698,804 3,576,530	\$	3,599,557 3,698,804	\$ \$	3,217,985 3,599,557	\$ \$	3,262,117 3,217,985	\$ 3,353,332 3,262,117	\$	2,842,116 3,353,332
Plan Fiduciary Net Position											
Contributions - Employer <sup>2</sup> Contributions - Member	\$	181,294 <sup>5</sup> 6,547	\$	223,661 <sup>5</sup> 6,318	\$	208,300 6,128	\$	201,155 5,963	\$ 152,985 5,786	\$	162,636 5,156
Benefit Payments 1,2		(153,081)		(141,143)		(159,841)		(148,112)	(148,236)		(139,601)
OPEB Plan Net Investment Income OPEB Plan Administrative Expense		(88,998) (820)		270,811 (819)		11,820 (847)		45,749 (875)	64,028 (760)		94,239 (861)
Other	_	0		0		0		4 4	 32 4		0
Net Change in Plan Fiduciary Net Position		(55,058)		358,828		65,560		103,884	73,835		121,569
Plan Fiduciary Net Position - Beginning	\$	1,419,477	\$	1,060,649	\$	995,089	\$	891,205	\$ 817,370	\$	695,801
Plan Fiduciary Net Position - Ending (b)	\$	1,364,419	\$	1,419,477	\$	1,060,649	\$	995,089	\$ 891,205	\$	817,370
Net OPEB Liability - Ending (a) - (b) Plan Fiduciary Net Position as a Percentage		2,212,111		2,279,327		2,538,908		2,222,896	2,370,912		2,535,962
of the Total OPEB Liability		38.15%		38.38%		29.47%		30.92%	27.32%		24.37%
Covered Employee Payroll <sup>3</sup> Net OPEB Liability as a Percentage of	\$	1,437,132	\$	1,452,345	\$	1,482,431	\$	1,515,953	\$ 1,573,898	\$	1,593,097
Covered Employee Payroll		153.93%		156.94%		171.27%		146.63%	150.64%		159.18%

<sup>&</sup>lt;sup>5</sup> Includes \$2.4 million and \$28.4 million employer cessation contribution for fiscal year 2022 and 2021, respectively



<sup>1</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>&</sup>lt;sup>2</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$40,600,669 for fiscal year 2022.

<sup>&</sup>lt;sup>3</sup> Based on derived compensation using the provided employer contribution information.

<sup>&</sup>lt;sup>4</sup> Northern Trust Settlement

## **EXHIBIT 3b**

## Schedule of the Employers' Net OPEB Liability – KERS Hazardous Plan

(\$ in thousands)

Change in the Net OPEB Liability		2022		2021		2020		2019		2018		2017
Total OPEB liability												
Service Cost	\$	14,474	\$	13,633	\$	11,548	\$	12,337	\$	12,893	\$	8,002
Interest on the total OPEB liability		30,599		29,254		28,101		27,990		28,500		27,591
Benefit Changes		10,289		48		0		0		167		0
Difference between actual and expected experience		(12,515)		(6,402)		27,668		(30,947)		(31,240)		(1,029)
Assumption Changes		(46,406)		42,022		11,428		31,687		(581)		89,401
Benefit Payments <sup>1,2</sup>		(22,804)		(20,927)		(21,425)		(19,767)		(18,704)		(16,618)
Net Change in Total OPEB Liability		(26,363)		57,628		57,320		21,300		(8,965)		107,347
Total OPEB Liability - Beginning	\$	622,152	\$	564,524	\$	507,204	\$	485,904	\$	494,869	\$	387,522
Total OPEB Liability - Ending (a)	\$	595,789	\$	622,152	\$	564,524	\$	507,204	\$	485,904	\$	494,869
Plan Fiduciary Net Position												
Contributions - Employer <sup>2</sup>	\$	4,116	\$	3,556	\$	7,441	\$	5,556	\$	5,165	\$	4,579
Contributions - Member		1,227		1,167		1,105		934		909		811
Benefit Payments 1,2		(22,804)		(20,927)		(21,425)		(19,767)		(18,704)		(16,618)
OPEB Plan Net Investment Income		(27,929)		128,244		704		28,373		42,950		59,614
OPEB Plan Administrative Expense		(125)		(118)		(123)		(117)		(104)		(105)
Other		0		0		0		2 4		18 4		0
Net Change in Plan Fiduciary Net Position		(45,515)		111,922		(12,298)		14,981		30,234		48,281
Plan Fiduciary Net Position - Beginning	\$	633,677	\$	521,755	\$	534,053	\$	519,072	\$	488,838	\$	440,557
Plan Fiduciary Net Position - Ending (b)	\$	588,162	\$	633,677	\$	521,755	\$	534,053	\$	519,072	\$	488,838
Net OPEB Liability - Ending (a) - (b)		7,627		(11,525)		42,769		(26,849)		(33,168)		6,031
Plan Fiduciary Net Position as a Percentage		.,		(,)		,		(==,=:=)		(55,255)		-,
of the Total OPEB Liability		98.72%		101.85%		92.42%		105.29%		106.83%		98.78%
Covered Employee Payroll <sup>3</sup>	\$	188,648	Ś	172,725	\$	182,209	Ś	151,448	\$	190,317	\$	171,087
Net OPEB Liability as a Percentage of	~	100,0.0	~	_,_,,	*	102,200	~	_0_,	~	_50,51.	~	1, 1,00,
Covered Employee Payroll		4.04%		-6.67%		23.47%		-17.73%		-17.43%		3.53%

<sup>&</sup>lt;sup>4</sup> Northern Trust Settlement



<sup>1</sup> Benefit payments are offset by insurance premiums received from retirees, Medicare Drug Reimbursements, and Humana Gain Share Payments (in applicable years).

<sup>&</sup>lt;sup>2</sup> Employer contributions and benefit payments include expected benefits due to the implicit subsidy for members under age 65, equal to \$2,835,815 for fiscal year 2022.

<sup>&</sup>lt;sup>3</sup> Based on derived compensation using the provided employer contribution information. For 2021 and 2022, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021 and FYE2022.

### **EXHIBIT 4a**

# Schedule of Employers' Contributions – KERS Non-Hazardous Plan (\$ in thousands)

Fiscal Year Ending <sup>1</sup>	Actuarially Determined Contribution <sup>2</sup>	Total Employer Contributions <sup>3</sup>	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>4</sup>	Actual Contributions as a Percentage of Covered Payroll
2022	\$ 135,809	\$ 140,694	\$ (4,885) \$	1,437,132	9.79%
2021	161,936	186,676	(24,740)	1,452,345	12.85%
2020	183,821	175,006	8,815	1,482,431	11.81%
2019	187,978	178,964	9,014	1,515,953	11.81%
2018	132,365	136,419	(4,054)	1,573,898	8.67%
2017	133,024	152,356	(19,332)	1,593,097	9.56%
2016	121,899	135,816	(13,917)	1,529,249	8.88%
2015	130,455	135,940	(5,485)	1,544,234	8.80%
2014	208,881	166,610	42,271	1,577,496	10.56%
2013	286,143	165,331	120,812	1,644,409	10.05%



<sup>&</sup>lt;sup>1</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>&</sup>lt;sup>2</sup> Actuarially determined contribution for fiscal year ending 2022 is based on the contribution rate calculated with the June 30, 2020 actuarial valuation, as amended by HB8 (2021 legislative session) which adjusted how the employer contribution would be allocated amongst participating employers.

<sup>&</sup>lt;sup>3</sup> Employer contributions do not include the expected implicit subsidy included in exhibit 3.

 $<sup>^{4}</sup>$  Based on derived compensation using the provided employer contribution information.

### **EXHIBIT 4b**

## Schedule of Employers' Contributions – KERS Hazardous Plan

(\$ in thousands)

Fiscal Year Ending <sup>1</sup>	Actuarially Determined Contribution <sup>2</sup>	Total Employer Contributions <sup>3</sup>	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>4</sup>	Actual Contributions as a Percentage of Covered Payroll
2022	\$ 0	\$ 1,281	\$ (1,281)	\$ 188,648	0.68%
2021	0	1,300	(1,300)	172,725	0.75%
2020	4,482	5,776	(1,294)	182,209	3.17%
2019	3,726	4,970	(1,244)	151,448	3.28%
2018	2,550	5,288	(2,738)	190,317	2.78%
2017	4,688	5,620	(932)	171,087	3.28%
2016	9,186	16,766	(7,580)	147,563	11.36%
2015	13,152	14,882	(1,730)	128,680	11.57%
2014	15,627	23,874	(8,247)	129,076	18.50%
2013	26,253	25,682	571	132,015	19.45%



<sup>&</sup>lt;sup>1</sup> Data for years prior to 2018 is based on contribution data provided in the 2017 ACFR, based on calculations provided by the prior actuary.

<sup>&</sup>lt;sup>2</sup> Actuarially determined contribution for fiscal year ending 2022 is based on the contribution rate calculated with the June 30, 2020 actuarial valuation.

<sup>&</sup>lt;sup>3</sup> Employer contributions do not include the expected implicit subsidy included in exhibit 3.

<sup>&</sup>lt;sup>4</sup> Based on derived compensation using the provided employer contribution information. For 2021 and 2022, derived compensation based on pension contribution information, as there were no required employer contributions for the insurance fund for FYE2021 and FYE2022.

## Notes to Schedule of Employers' Contributions for FYE 2022

The actuarially determined contributions effective for fiscal year ending 2022 that are documented in the schedule on the previous pages were calculated as of June 30, 2020. Based on the June 30, 2020 actuarial valuation report, the actuarial methods and assumptions used to calculate these contributions are below:

Item	KERS Non-Hazardous	KERS Hazardous
Determine by the Actuarial Valuation as of:	June 30, 2020	June 30, 2020
Actuarial Cost Method:	Entry Age Normal	Entry Age Normal
Asset Valuation Method:	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
Amortization Method:	Level Percent of Pay	Level Percent of Pay
Amortization Period:	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases	30-year closed period at June 30, 2019 Gains/losses incurring after 2019 will be amortized over separate closed 20-year amortization bases
Payroll Growth Rate:	0.00%	0.00%
Investment Return:	6.25%	6.25%
Inflation:	2.30%	2.30%
Salary Increases:	3.30% to 15.30%, varies by service	3.55% to 20.05%, varies by service
Mortality:	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.	System-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.
Healthcare Trend Rates: Pre-65	Initial trend starting at 6.40% at January 1, 2022, gradually decreasing to an ultimate trend rate of 4.05% over a period of 14 years. The 2021 premiums were known at the time of the valuation and were incorporated into the liability measurement.	Initial trend starting at 6.40% at January 1, 2022, gradually decreasing to an ultimate trend rate of 4.05% over a period of 14 years. The 2021 premiums were known at the time of the valuation and were incorporated into the liability measurement.
Post-65	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2021 premiums were known at the time of the valuation and were incorporated into the liability measurement. Additionally, Humana provided "Not to Exceed" 2022 Medicare premiums, which were incorporated and resulted in an assumed 2.90% increase in Medicare premiums at January 1, 2022.	Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. The 2021 premiums were known at the time of the valuation and were incorporated into the liability measurement. Additionally, Humana provided "Not to Exceed" 2022 Medicare premiums, which were incorporated and resulted in an assumed 2.90% increase in Medicare premiums at January 1, 2022.



## **EXHIBIT 5a**

# Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate KERS Non-Hazardous Plan

(\$ in thousands)

Table 1. Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

1.00%			Current		1.00%	
Decrease,		1	Discount Rate,		Increase,	
4.72%			5.72%	6.72%		
\$	2,648,282	\$	2,212,111	\$	1,810,717	

Table 2. Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate

1.00%		Curre	ent Healthcare		1.00%
	Decrease	<b>Cost Trend Rate</b>			Increase
\$	1,818,723	\$	2,212,111	\$	2,634,576



## **EXHIBIT 5b**

# Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate KERS Hazardous Plan

(\$ in thousands)

Table 1. Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

1.00%		Current	1.00%			
Decrease,	Di	scount Rate,		Increase,		
4.59%	5.59%			6.59%		
\$ 91,455	\$	7,627	\$	(60,421)		

### Table 2. Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate

1.00%	<b>Current Heal</b>	thcare	1.00%		
 Decrease	<b>Cost Trend</b>	Rate		Increase	
\$ (53,939)	\$	7,627	\$	82,395	





## **Appendix 1**

### **Development of Baseline Claims Cost**

Due to the impact of the COVID-19 pandemic on claims experience for calendar years 2020 and 2021, the initial per capita costs were developed using retiree claims experience for calendar year 2019 for non-Medicare retirees. The claims were projected on an incurred claim basis, adjusted for prescription drug rebates, and loaded for administrative expense. The per capita costs shown in the table below also include HRA contributions for retirees on the CDHP plans. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current retirees. The fully-insured premiums paid to the Kentucky Employees' Health Plan are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees.

For Medicare retirees, the initial per capita costs were estimated based on the plan premiums effective January 1, 2022, and are used for both current and future retirees. An inherent assumption in this methodology is that the projected future retirees will have a similar distribution by plan type as the current retirees.

Age graded and sex distinct premiums are utilized by this valuation. These costs are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific costs more accurately reflect the health care utilization and cost at that age.

FOR THOSE NOT ELIGIBLE FOR MEDICARE		
Age	MALE	FEMALE
40	\$394.59	\$641.19
50	639.64	787.97
60	1,087.09	1,070.41
64	1,321.93	1,247.54

FOR THOSE ELIGIBLE FOR MEDICARE		
AGE	Male	FEMALE
65	\$188.91	\$178.18
75	221.03	215.67
85	233.72	236.47

Mehdi Riazi and Blake Orth are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Mehdi Riazi, FSA, EA, MAAA

Blake Orth, FSA, EA, MAAA

