COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF WATER	)	
SERVICE CORPORATION OF KENTUCKY FOR	)	
A GENERAL ADJUSTMENT IN EXISTING RATES	)	CASE NO.
AND A CERTIFICATE OF PUBLIC	)	2022-00147
CONVENIENCE AND NECESSITY TO DEPLOY	)	
ADVANCED METERING INFRASTRUCTURE	)	

DIRECT TESTIMONY

AND EXHIBITS

OF

RANDY A. FUTRAL

ON BEHALF OF THE

OFFICE OF THE ATTORNEY GENERAL OF THE
COMMONWEALTH OF KENTUCKY
&
THE CITY OF CLINTON

J. Kennedy and Associates, Inc.
570 Colonial Park Drive, Suite 305
Roswell, GA 30075

October 13, 2022

PUBLIC REDACTED VERSION

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF WATER SERVICE CORPORATION OF KENTUCKY FOR A GENERAL ADJUSTMENT IN EXISTING RATES AND A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO DEPLOY ADVANCED METERING INFRASTRUCTURE	)	**CASE NO. 2022-00147**

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DIRECT TESTIMONY OF RANDY A. FUTRAL

I. QUALIFICATIONS AND SUMMARY

Q. Please state your name and business address.

A. My name is Randy A. Futral. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a utility rate and planning consultant holding the position of Director of Consulting with the firm of Kennedy and Associates.

Q. Please describe your education and professional experience.

A. I earned a Bachelor of Business and Science degree in Business Administration with an emphasis in Accounting from Mississippi State University. I have held various positions in the field of accounting for a period of over 35 years, both as an employee and more recently as a consultant. My experience has been focused in the areas of accounting, auditing, tax, budgeting, forecasting, financial reporting, and management.

Since 2003, I have been a consultant with Kennedy and Associates, providing services to state government agencies and large consumers of utility services in the ratemaking, financial, tax, accounting, and management areas.

From 1997 to 2003, I served both as the Corporate Controller and Assistant Controller of Telscape International, Inc., an international public company providing telecommunication and high-end internet access services. My tenure with Telscape included responsibilities in the areas of accounting, financial reporting, budgeting, forecasting, banking, and management.

From 1988 to 1997, I was employed by Comcast Communications, Inc., then the world's third largest cable television provider, in a series of positions including Regional Controller for their South Central regional office. My duties with Comcast encompassed various accounting, tax, budgeting, forecasting, and managerial functions.

From 1984 to 1988, I held various staff and senior level accounting positions for both public accounting and private concerns focusing in the areas of accounting, budgeting, tax and financial reporting.

I have testified as an expert on ratemaking, accounting, finance, tax, and other issues in proceedings before regulatory commissions at the federal and state levels on numerous occasions. I have also acted as the lead expert in numerous proceedings involving audits of Louisiana fuel adjustment clauses, environmental adjustment clauses, purchase gas adjustment clauses, energy efficiency rider filings, and formula rate plan filings resulting in written reports that were ultimately approved by the Louisiana Public Service Commission.

Although I have not previously appeared before the Kentucky Public Service Commission ("Commission") as a witness, I have assisted counsel for the Office of the Attorney General of the Commonwealth of Kentucky and Kentucky Industrial Utilities Customers ("KIUC"), as well as other Kennedy and Associates' experts, in numerous proceedings before the Commission, including base rate, fuel adjustment clause, and acquisition proceedings involving Water Service Corporation of Kentucky ("Water Service Kentucky" or "Company"), Kentucky-American Water Company, Atmos Energy Corporation, Duke Energy Kentucky, Inc., Columbia Gas of Kentucky, Inc., Kentucky Power Company, Kentucky Utilities Company, Louisville Gas and Electric Company, Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, and East Kentucky Power Cooperative.[1]

Q. On whose behalf are you testifying?

A. I am providing testimony on behalf of the Office of the Attorney General of the Commonwealth of Kentucky ("AG"), and the city of Clinton.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to: 1) provide a summary of the adjustments that I and Mr. Baudino recommend and the effects on the claimed base revenue requirement and requested increase, 2) address in greater detail and make recommendations on specific

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[1] My qualifications are further detailed in Exhibit___(RAF-1).

issues that affect the base revenue requirement in this proceeding, 3) address the Company's request for a Certificate of Public Convenience and Necessity ("CPCN") to deploy Advanced Metering Infrastructure ("AMI") and the related costs included in the claimed revenue requirement, 4) address the Company's proposal to establish a regulatory asset for certain costs associated with the implementation of the Oracle Fusion Enterprise Resource Planning ("ERP") system, and 5) quantify the effects of AG witness Mr. Richard Baudino's return on equity recommendation.

Q. Please summarize your testimony.

A. I recommend a base revenue increase of no more than $456,911 compared to the Company's claimed base revenue deficiency of $1,047,688.

The following table lists each of my and Mr. Baudino's recommended adjustments and the effect of each adjustment on the Company's claimed base revenue deficiency and base rate increase.[2] I developed my adjustments in consultation with the AG, but I understand that the AG's final adjustments may differ based upon discovery, testimony and further evidence presented throughout the course of this proceeding.

[2] The quantifications are detailed in my electronic workpapers, which were filed at the same time that my testimony was filed. The electronic workpapers consist of an Excel workbook in live format and with all formulas intact.

Water Service Corporation of Kentucky
Summary of Attorney General and City of Clinton Recommendations
KPSC Case No. 2022-00147
Forecasted Test Period: Twelve Months Ended December 31, 2023
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	Adjustment Amount Before Gross Up	PSC Fee Gross Up	Adjustments
Water Service Corporation of Kentucky Requested Increase			$ 1,047,688
Effects on Increase of Rate Base Recommendations			
Remove Forecast AMI Plant and Associated Costs from Rate Base			(23,924)
Remove Project Phoenix Computer Asset Costs			(16,053)
Remove JD Edwards and Oracle Customer Care and Billing Computer Asset Costs			(3,100)
Remove Deferred Rate Case Expenses, Net of ADIT			(36,767)
Remove Fusion Implementation Regulatory Asset, Net of ADIT			(1,194)
Remove Allocated Share of Reserve for Chicago Office Rent			(7,063)
Reduce Forecast New Vehicle Costs Based on Actual, Net of A/D			(1,847)
Remove Asset ADIT for Bad Debt Reserve When Reserve Is Not Included in Rate Base			(8,249)
Restate Cash Working Capital Balance to Zero in Lieu of Lead Lag Study			(33,762)
Effects on Increase of Operating Income Recommendations			
Remove AMI Depreciation Expense and Operating Expense	(19,068)	1.043057	(19,889)
Reduce Projected Increase in Payroll Expense and Related Payroll Taxes	(53,519)	1.043057	(55,823)
Remove Incentive Compensation Tied to Financial Performance	(6,698)	1.043057	(6,986)
Reduce 401(k) Match Amounts Corresponding to Historic Employee Participation	(15,815)	1.043057	(16,496)
Reduce Health Insurance Expense Corresponding to Historic Employee Participation	(28,944)	1.043057	(30,190)
Reduce Company Paid Portion of Health Insurance Expense Based on BLS Averages	(10,449)	1.043057	(10,898)
Reduce Legal Fee Expense to Remove Non-Recurring Expense	(15,773)	1.043057	(16,452)
Remove Expenses Related to Termination of Clinton Wastewater Contract	(11,541)	1.043057	(12,038)
Reduce Fuel Expense	(5,067)	1.043057	(5,285)
Remove Amortization Expense Related to Excessive Rate Case Legal Costs	(66,667)	1.043057	(69,537)
Remove Amortization of Fusion Implementation Costs	(7,601)	1.043057	(7,928)
Reduce Depreciation Expense Related to Error in Calculation	(50,838)	1.043057	(53,027)
Remove Depreciation Expense for Project Phoenix Computer Asset Costs	(16,312)	1.043057	(17,015)
Remove Depreciation Expense for JD Edwards and Oracle CC&B Computer Asset Costs	(1,384)	1.043057	(1,444)
Reduce Depreciation Expense for Reduction in Projected Vehicle Costs	(2,825)	1.043057	(2,947)
Reduce Bad Debt Expense Rate Applied to the As-Filed Revenue Requirement			(79,809)
Reflect Effect of Bad Debt Expense Rate Decrease for AG Rev. Req. Recommendations			9,056
Effects on Increase of Rate of Return Recommendations			
Reflect Changes to Debt Amount and Average Debt Rate Based on Recent Activity			(2,119)
Reflect Return on Equity of 9.25%			(59,992)
Total AG and City of Clinton Recommendations			$ (590,777)
Maximum Base Rate Increase after AG and City of Clinton Recommendations			$ 456,911

In the following sections of my testimony, I address each of the issues reflected in the preceding table in greater detail and quantify the effects on the base revenue requirement of Mr. Baudino's return on equity recommendation.

I recommend that the Commission reject the Company's request for a CPCN regarding the deployment of AMI within its system. The Company failed to justify this request and the cost-benefit analysis performed after it filed its Application in this proceeding is flawed and unreliable. In addition, the Company has not quantified the cost savings other than the so-called benefits in the cost-benefit analysis it provided in discovery.

I recommend that the Commission deny the request to establish a regulatory asset and amortize the Oracle Fusion ERP implementation costs. These allocated costs of $22,803 were expensed as incurred during 2019 and 2020. The Company did not have authorization from the Commission at the time or since to defer the costs as a regulatory asset. It missed a good opportunity in the 2020 base rate case to seek such authorization.

Finally, on August 29, 2022, Southwest Water Company and Corix Infrastructure Inc. ("CII"), Water Service Company's parent company, announced a merger with a projected close date by the end of 2023. The Company responded to discovery stating that any potential integration activities would not be implemented until the transaction closes, which corresponds with the projected test year ending date in the instant case of December 31, 2023.[3] Since there are no known expected changes to test year amounts related to the merger at this time, I do not discuss the potential merger any further in this testimony.

II. RATE BASE ISSUES

A. Reject Request to Include Costs of Advanced Metering Infrastructure

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[3] Water Service Kentucky's response to AG 2-67. I have attached a copy of this response as my Exhibit___(RAF-2)

Q. Describe the Company's proposal to deploy AMI within its system.

A. Water Service Kentucky requests a CPCN to deploy AMI. According to the Company's Application, it plans to deploy AMI to one-third of its system every two years and to complete the deployment over a five-year period.[4] Water Service Kentucky anticipates that the total capital costs of the AMI project will be $1,696,462 and that deployment will start in January 2023.[5] The Company projects that it will invest $504,458 in 2023, $589,504 in 2025, and $602,500 in 2027 to deploy the meters and that the annualized revenue requirement will be $68,199 for 2023, $66,199 for 2024, $134,159 for 2025, $129,820 for 2026, and $196,985 for 2027.[6] In addition to the capital investment costs and related depreciation costs, the Company projects operating costs of $7,975 per year for the AMI infrastructure annual training and subscriptions required to utilize the AMI equipment.[7] The Company projects no additional costs, although that is not correct, as I subsequently explain. According to the Company's testimony, the components of the AMI system will include Neptune AMI meters, Gateway data collectors, an MRX920 mobile data collector, and retrofitting materials.[8]

Q. What amounts were reflected in the Company's revenue requirement due to its AMI proposal?

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[4] Application at 14-15.
[5] *Id.*
[6] Direct Testimony of James Kilbane ("Kilbane Testimony") at 27; Application, Exhibit 41.
[7] Water Service Kentucky's response to AG 1-100(a) and (b).
[8] Direct Testimony of Colby Wilson ("Wilson Testimony") at 11-12.

A. The Company's revenue requirement associated with the AMI proposal consists of two different parts. First, the Company computed the revenue requirement of its AMI proposal in the test year to be $44,135 using the same methodology as used in its Application at Exhibit 41. This amount was computed by the Company in response to discovery[9] and represents the return *of* and *on* the 13-month value of capital investments included in the test year and the additional operating costs noted above. Second, the Company assumed that the AMI meter installation roll-out would be performed by in-house employees and that there would no longer be vacancies among its staff. The Company included these payroll and related costs, net of capitalized payroll costs, as expenses in its claimed base revenue requirement, but did not identify the additional payroll and related costs as a cost of the AMI.[10] The AMI-related capitalization of labor resulted in a subtraction of expenses of $79,676.[11] This was based on the installation of 1,913 meters at one per hour multiplied by a Company-determined all-inclusive labor rate of $41.65 per hour.[12]

Q. Did the Company reflect any water service revenue increases or maintenance expense decreases in the claimed revenue requirement as a result of the AMI meters it proposes to deploy?

A. No. The Company did not reduce its claimed revenue requirement to reflect any potential revenue increases or expense decreases related to its AMI proposal. The

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[9] This was the amount computed by the Company and included as an attachment response to AG 1-102. I have attached a copy of this response as my Exhibit___(RAF-3).
[10] Additional capitalized labor is reflected as a reduction in expenses in the Application at Exhibit 29.4 and Exhibit 29, line 16.
[11] Included in the supporting workpaper Excel file PSC DR 1-49 – Exhibit 41 AMI cost impacts_ REDACTED at worksheet tab Quote and details provided in Water Service Kentucky's response to Staff 1-49.
[12] *Id.*

Company confirmed in response to discovery that it had not quantified any such savings.[13] However, the Company asserts that it potentially could see savings due to "reduced pumping cost, chemical cost, and fewer truck rolls to investigate and locate customer leaks" and that such savings would "accrue and accumulate during and after phased-in implementation."[14] When asked specifically about meter reading expense savings, the Company responded to discovery as follows:[15]

> WSCK employs field techs who performs various maintenance jobs throughout the system and work all customer-generated work orders. WSCK does not employ specific meter readers. If granted, the CPCN would allow filed [sic] techs to spend more time on direct customer issues. Ultimately, this would likely result in savings over time through reduced unaccounted for water, fewer truck rolls for meter reads and re-reads, reduced pumping costs, and reduced chemical costs.

Thus, the Company reflected no expense savings related to meter reading expense savings or any other savings in its claimed revenue requirement.

Q. Since the Company does not employ contracted meter readers, would you expect that the staffing levels would decrease due to the implementation of AMI?

A. Yes. That is a very reasonable expectation. However, not only does Water Service Company expect to be fully staffed for the first time in a number of years during the test year, it also projects that staffing levels will not decrease.

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[13] Water Service Kentucky's response to Staff 2-19(b) and (c). I have attached the narrative portion of this response as my Exhibit___(RAF-4).
[14] *Id.*
[15] Water Service Kentucky's response to AG 1-57. I have attached a copy of this response as my Exhibit___(RAF-5).

Q. Can you describe the overall staff vacancy levels experienced by the Company in recent years?

A. Yes. The Company has consistently experienced staff vacancies (there are fewer actual employees than the budgeted positions) during recent years. This was highlighted in the Commission's Order from the last rate case when it disallowed costs associated with two positions that were vacant in late 2020.[16] Water Service Kentucky still had at least two vacancies through September 17, 2022, and these vacancies have existed for some time.[17] The Director of Engineering and Asset Management position has remained open since November 2021 and an Operations Apprentice position had remained open since May 2021.[18] In addition, a Field Tech 1 position in Middlesboro remained open for approximately twelve months before it was recently filled.[19] The Company confirmed in the supplemental round of discovery that the Operations Apprentice position was finally filled as of September 17, 2022.[20]

The Company was asked in the supplemental round of discovery to update its organizational chart of employees since there had been some recent personnel changes. The organizational chart provided by the Company in response to that discovery request indicates a vacancy for the Director of Engineering and Asset Management position mentioned above and for a GIS Analyst.[21] These positions reside outside of

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[16] Case No. 2020-00160, *Electronic Application of Water Service Corporation of Kentucky for General Adjustment in Existing Rates* (Ky. PSC Dec. 8, 2020), Order at 10-12.
[17] Water Service Kentucky's response to AG 1-7. I have attached a copy of this response as my Exhibit___(RAF-6).
[18] *Id.*
[19] Water Service Kentucky's response to AG 1-113. I have attached a copy of this response as my Exhibit___(RAF-7).
[20] Water Service Kentucky's response to AG 2-13. I have attached a copy of this response as my Exhibit___(RAF-8).
[21] Water Service Kentucky's response to AG 2-1. I have attached a copy of this response as my Exhibit___(RAF-9).

Kentucky. The organizational chart identifies only 11 positions/employees that reside in Kentucky, not the 13 positions/employees projected to be employed throughout the test year.[22] The Company historically budgets a higher number of employees than its actual full-time equivalents ("FTEs") hired to fill those positions.

Q. Did the Company provide an economic analysis associated with its AMI proposal?

A. Yes. However, the analysis was not performed until after the Company made its decision to implement AMI and filed its Application and request for CPCN in this proceeding. No analysis was performed or provided in support of its request until the Company provided a copy of a July 2022 report titled "2022 AMR/AMI Cost-Benefit Analysis" prepared by Vaughn & Melton Consulting Engineers, Inc. ("Vaughn & Melton") in response to Staff discovery.[23] The report was revised in August 2022 and provided in response to discovery.[24] Thus, results from the Vaughn & Melton report were not used by the Company to inform or justify its decision to implement AMI and seek a CPCN.

Q. Did the Vaughn & Melton economic analysis identify potential revenue increases and expense decreases that could result from the proposed AMI program?

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[22] *Id.* The updated organizational chart excludes the newly filled Operations Apprentice position. The response to AG 2-13(c) indicates that there were 13 full-time employees working in Kentucky as of September 20, 2022, so it is possible that the updated organizational chart provided is not accurate.
[23] Water Service Kentucky's response to Staff 2-19(a). See Exhibit___(RAF-4). I do not attach a copy of the originally filed report as it was later revised.
[24] Water Service Kentucky's response to Staff 3-6. I have attached a copy of the narrative portion of this response and revised Vaughn & Melton report as my Exhibit___(RAF-10).

A. Yes, although the analysis is flawed and unreliable. Typically, such economic analyses assume there will be savings from a reduction in meter reading employees or contractors and the related expenses. Vaughn & Melton assumed there would be no positions eliminated, although it did identify one potential revenue increase and three areas of expense decreases that over time could produce benefits to offset the costs of the initial deployment and ongoing operation. Vaughn & Melton concluded there could be a revenue gain due to enhanced meter accuracy.[25] An accuracy improvement factor of 3% was assumed in the report for new registers and meters for the AMI equipment compared to the current older equipment.[26] Vaughn & Melton also concluded there could be certain expense savings due to the AMI program as follows:[27]

> 1) Savings from normal meter turnover/replacement the Company is already performing by its staff;
> 2) Labor savings due only to lower travel costs from the staff having to work less on tasks related to conventional meter reading to focus on things like data analysis; and
> 3) Cost savings, such as fuel and other vehicle expenses, from the reduction in truck rolls associated with meter reading activities.

Q. Did the Vaughn & Melton economic analysis include a cost/benefit quantification for the proposed AMI program?

A. Yes. Vaughn & Melton estimated that over a twenty-year period the net present value of all costs to implement the program would be $2,543,847 and that the net present value of all quantifiable benefits resulting from the program would be $4,073,209.[28]

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[25] *Id.* See revised Vaughn & Melton report at 5.
[26] *Id.*
[27] *Id.*
[28] *Id.* See revised Vaughn & Melton report at 4.

This amounted to a benefit/cost ratio of 1.60.[29] The net present value determination was broken down in the Vaughn & Melton report as follows:[30]

	NPV
Savings from Meter Turnover	$1,305,687
Labor Savings (Travel Only)	270,245
Carbon Footprint Savings	323,119
Revenue Gain from Meter Accuracy	2,174,158
Total	$4,073,209

To determine the quantifiable benefits, Vaughn & Melton estimated annual revenue increases and expense decreases related to the full deployment of the AMI program to be $234,303.[31]

Q. Is the Vaughn and Melton analysis reliable?

A. No. The analysis includes savings that will likely not be realized and does not include known costs that will be incurred, such as the costs for the two employees that will install the AMI if it is approved.

The largest so-called benefit is "revenue gain from meter accuracy" based on an assumption that the new meters will be at least 3% more accurate than the old meters and the increased accuracy will lead to higher revenues over the entire twenty-year period. This assumption alone assumes that the Company's entire existing meter base reads low on average by 3%. This assumption is not substantiated by any evidence cited in the report and the source of the 3% increase in accuracy over the entire meter base has not been established.

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[29] *Id.* See revised Vaughn & Melton report at 5.
[30] *Id.* See revised Vaughn & Melton report at 4.
[31] *Id.* See revised Vaughn & Melton report at Appendix B, Exhibit K.

In addition, it logically does not follow that a 3% increase in accuracy, even assuming this is a valid assumption, would result in an increase in revenues. It could just as well result in a decrease in revenues. If the calibration for the meters is inaccurate, it could produce water usage reading levels that are either too low or too high. Further, the Company is required to test its meters for accuracy and recalibrate them if necessary at least every ten years.[32] Given that fact alone, it is unlikely that a large percentage of the meters would be considerably inaccurate. Thus, in terms of meter accuracy, it is quite likely that there will be no net revenue enhancement and there could be revenue losses due to a change out of all meters in terms of accuracy improvement.

The second largest so-called benefit is "savings from meter turnover," meaning avoided "normal meter turnover/replacement." There are no such savings. Almost all remaining meters will be prematurely retired on an accelerated basis and replaced with new AMI meters that also will be replaced under "normal meter turnover/replacement." In fact, the AMI meter turnover will likely exceed the turnover of the existing meters. AMI meters generally have a shorter physical life (usually assumed to be 15 to 20 years) than electro-mechanical meters, such as the ones they are replacing. The Company's authorized depreciation rate for its current meters is 2.25%, which is based on an assumed lifespan of 44.4 years. The AMI meters would presumably have to be replaced more than twice as often than the electro-mechanical meters based on their respective physical service lives. Compounding the Company's claim of such savings is the assumption in the calculation of the so-called benefits that

[32] 807 KAR 5:066, Section 16(1).

it would replace its old meters in their entirety every 10 years, or two times over the Vaughan & Melton 20-year analysis timeline.[33] Of course, that assumption reflects a turnover rate of four times that assumed in the Company's authorized depreciation rates for the existing meters, a complete disconnect from reality. In addition, there is not a similar replacement assumption included in the cost calculation for the AMI meters. The AMI cost calculation in the Vaughn & Melton report only includes the original deployment costs, a bias in favor of the AMI.

The third largest so-called benefit is "carbon footprint savings," which actually is calculated as reduction in the fuel, maintenance, and replacement costs for 2 meter reading vehicles,[34] while the fourth largest so-called benefit is "labor savings," which actually is calculated based only on a reduction in travel costs from not rolling 2 vehicles based on $0.55 per mile avoided costs.[35] While I do expect these types of savings, it appears as if there is overlap in the avoided fuel, maintenance, and replacement costs from the third largest so-called benefit and the avoided travel costs based on a mileage rate from the fourth largest so-called benefit.

Q. Did the Company cite to a recent Commission authorization for an AMI CPCN for another water company?

A. Yes. The Company's Application cited to the Commission's recent approval for a CPCN for South Eastern Water Association in Case No. 2021-00222 related to the AMI deployment of 8,000 meters. The Commission's Order in that case stated that

[33] *Id.* See revised Vaughn & Melton report at Appendix B, Exhibit G.
[34] *Id.* See revised Vaughn & Melton report at Appendix B Exhibit I.
[35] *Id.* See revised Vaughn & Melton report at Appendix B Exhibit H.

South Eastern Water Association did not request a rate increase associated with the AMI deployment and actually estimated annual meter reading cost savings of approximately $100,800 per year.[36] Not only did that project provide service benefits to customers, but it was deemed a good economic choice for customers. That is because cost savings were deemed to be higher than implementation costs.

Q. What is your recommendation?

A. I recommend that the Commission reject the Company's request for a CPCN regarding the deployment of AMI within its system. The Company failed to justify this request and the cost-benefit analysis provided in discovery is flawed and not reliable. The Company has not quantified the cost savings other than the so-called benefits in the cost-benefit analysis and these are demonstrably flawed.

As part of this recommendation, I recommend that all projected net cost increases be removed from the revenue requirement in this case. This includes removal of the test year revenue requirement of $44,135 as computed by the Company. This also includes the removal of payroll and payroll tax expenses to reflect full staffing levels and the related removal of $79,676 in capitalized labor offsets that effectively nullifies the increases in payroll related costs to fill the vacancies that have historically existed. I assume these two amounts to be roughly offsetting, so I do not separately quantify the results on my table of recommendations.

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[36] Case No. 2021-00222, *Electronic Application of South Eastern Water Association, Inc. for Commission Approval Pursuant to 807 KAR 5:001 and KRS 278.020 for a Certificate of Public Convenience and Necessity to Deploy an Advanced Metering Infrastructure (AMI) System* (Ky. PSC Aug. 12, 2021), Order at 2-3.

If the Commission decides to authorize the CPCN, I have the same recommendation related to the removal of the projected net cost increases included by the Company in its revenue requirement. If the project is deemed economical, cost savings and/or potential revenue increases should be deemed to at least compensate the Company for its implementation and operational costs.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $43,813 in the claimed base revenue requirement and requested base rate increase. $23,924 of this amount represents the return on rate base using the Company's grossed up rate of return, while another $19,889 represents the removal of depreciation and other miscellaneous operating expenses of $19,068 grossed-up for Commission assessment fees and bad debt expense. This amount is slightly different than the $44,135 revenue requirement for the AMI costs as calculated by the Company because the gross-up factor for the return on rate base used by the Company was slightly incorrect.[37]

B. Remove Project Phoenix Computer Asset Costs

Q. Describe the Company's failure to remove Project Phoenix computer asset costs from its revenue requirement.

A. The Commission has repeatedly denied recovery in prior proceedings of the Company's Project Phoenix computer asset costs incurred over a decade ago.[38] It is

[37] The Company utilized the correct gross-up factor in its calculation of the Project Phoenix revenue requirement referenced in the next section and should have used the same factor in its AMI revenue requirement calculation.
[38] *See* Case No. 2008-00563, *Application of Water Service Corporation of Kentucky for an Adjustment of Rates* (Ky. PSC Nov. 9, 2009), Order at 3 - 6; *See* Case No. 2010-00476, *Application of Water Service Corporation of Kentucky for an Adjustment of Rates* (Ky. PSC Nov. 23, 2011). Order at 12 - 13; *See* Case No. 2013- 00237,

my understanding that the Project Phoenix costs included the original J.D. Edwards financial software system and the Oracle Customer Care and Billing system implementation costs. When asked in discovery if the Company had removed these costs in the instant case, the Company responded that it had "inadvertently included the Project Phoenix costs that the Commission had previously denied."[39] In addition, the Company provided the revenue requirement effects of the Project Phoenix costs that should be removed. The Company's calculation reflects a reduction in rate base of $163,898, the return on rate base of $16,053, and of depreciation expense of $17,015, after gross-up for Commission assessment fees and bad debt expense.

Q. What is your recommendation?

A. I recommend that the Commission deny recovery of these costs from the revenue requirement consistent with the treatment in prior proceedings.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $33,068 in the claimed base revenue requirement and requested base rate increase.

C. Remove J.D. Edwards and Oracle Customer Care and Billing System Computer Asset Costs

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Application of Water Service Corporation of Kentucky for an Adjustment of Rates (Ky. PSC July 24, 2014), Order at 18 – 22*; See* Case No. 2020-00160, *Electronic Application of Water Service Corporation of Kentucky for General Adjustment in Existing Rates* (Ky. PSC December 8, 2020) Order at 3 – 4 and 22 – 23.

[39] Water Service Kentucky's response to AG 1-32. I have attached a copy of this response as my Exhibit___(RAF-11).

Q. Describe the Company's failure to remove all J.D. Edwards and Oracle Customer Care and Billing System computer asset costs from its revenue requirement.

A. In the last rate case, the Commission explicitly denied recovery of costs associated with the Company's J.D. Edwards financial software system and the Oracle Customer Care and Billing system in addition to the denial of recovery for the Project Phoenix costs.[40] When asked in discovery if the Company had removed all related costs in the instant case, the Company responded that it had not and provided the revenue requirement effects of the costs for each.[41] The Company's calculations reflect a reduction in rate base of $31,646, the return on rate base of $3,100, and of depreciation expense of $1,444, after gross-up for Commission assessment fees and bad debt expense.

Q. Did the Company agree that it was appropriate to remove these costs from the revenue requirement like it did for the Project Phoenix costs?

A. No. The Company stated in discovery that the previously disallowed Project Phoenix costs included the J.D. Edwards financial software system and the Oracle Customer Care and Billing system implementation costs, but that the disallowance did not apply to enhancement costs for those systems that were incurred later after implementation.[42] In addition, the same response stated that these enhancement costs have been requested and recovered in prior rate cases.[43]

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[40] Case No. 2020-00160, *Electronic Application of Water Service Corporation of Kentucky for General Adjustment in Existing Rates* (Ky. PSC Dec. 8, 2020), Order at 22-23.
[41] Water Service Kentucky's response to AG 1-33. I have attached a copy of this response as my Exhibit___(RAF-12).
[42] Water Service Kentucky's response to AG 2-29. I have attached a copy of this response as my Exhibit___(RAF-13).
[43] *Id.*

Q. Are you aware of instances where explicit requests were made to include the revenue requirement for the enhancement costs associated with these systems?

A. No. If such costs were included in the Company's requests for rate recovery, I am not aware that the Commission was informed of such instances nor that the Commission knowingly authorized their recovery.

Q. What is your recommendation?

A. I recommend that the Commission deny recovery of these costs from the revenue requirement consistent with the spirit of the treatment of all such costs in prior cases. Since the Commission has repeatedly denied recovery of the Project Phoenix costs, including the original implementation costs from the J.D. Edwards financial software system and the Oracle Customer Care and Billing system, I think it is only fitting to deny recovery for any enhancement costs related to those systems.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $4,543 in the claimed base revenue requirement and requested base rate increase.

D. Remove Regulatory Asset for Deferred Rate Case Expenses

Q. Describe the Company's request to include a regulatory asset in rate base for deferred rate case expenses.

A. The Company included $404,475 in deferred rate case expenses in rate base.[44] $382,764 of this amount relates to the instant case, while $21,711 relates to the remaining unamortized deferred balance associated with Case No. 2020-00160. The Company also included an accumulated deferred income tax ("ADIT") offset of $29,093 as a subtraction to rate base related to the unamortized rate case costs from Case No. 2020-00160, but it failed to reflect an ADIT offset for the deferred rate case costs included for the instant case.[45]

Q. Should the Commission include the regulatory asset for deferred rate case expenses in rate base in this proceeding?

A. No. The rate case expenses were and will be incurred to benefit Water Service Kentucky's ultimate parent company, CII, and its shareholders. They were and will not be incurred to benefit the Company's customers.

Q. Has the Commission recently addressed this issue in other recent base rate case proceedings?

A. Yes. In the most recent Atmos Energy Corporation ("Atmos") base rate case proceeding, the Commission rejected Atmos's request to include the regulatory asset

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[44] Refer to the Application, Schedule 28.8 at line 4, which shows total 13-month average deferred rate case costs in rate base of $423,478. That amount includes $382,764 in 13-month average deferred rate case costs for Case No. 2022-00147, $21,711 in 13-month average deferred rate case costs for Case No. 2020-00160, and $19,003 in 13-month average deferred Fusion implementation costs. These amounts were confirmed by the Company in response to AG 2-40, a copy of which is attached as my Exhibit___(RAF-14).

[45] Water Service Kentucky's response to AG 2-41, a copy of which is attached as my Exhibit___(RAF-15). I compute the ADIT effects of the temporary differences reflected in this response based on the amounts of applicable ADIT included in the as-filed revenue requirement. See the electronic workpapers filed with my Direct Testimony.

for deferred rate case expenses in rate base.[46] In its Order, the Commission stated: "The Commission agrees that rate case expense regulatory assets should not be included in rate base, as that would allow a return on the unamortized balance of the expense. The Commission has historically excluded this item from rate base to share the cost of rate proceedings between the stockholders and ratepayers."[47] The same justification was given by the Commission when it rejected Duke Energy Kentucky, Inc.'s request in its most recent electric rate case proceeding to include the regulatory asset for deferred rate case expenses in rate base.[48]

Q. Is there another reason to allocate the return on the regulatory asset for rate case expense to CII shareholders and the amortization expense to the Company's customers?

A. Yes. The revenue requirement cost of the regulatory asset declines each year as it is amortized and as the net rate base amount declines. However, the Company's customers never benefit from this annual cost reduction until base rates are reset at some future date. The Company retains the savings from the declining costs and the Company's customers never benefit from these reductions because the base revenue recovery is never trued-up.

Q. What is your recommendation?

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[46] Case No. 2021-00214, *Electronic Application of Atmos Energy Corporation for An Adjustment of Rates*, (Ky. PSC May 19, 2022), Order at 17-18.
[47] *Id.*
[48] Case No. 2019-00271, *Electronic Application of Duke Energy Kentucky, Inc. for 1) An Adjustment of the Electric Rates; 2) Approval of New Tariffs; 3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; and 4) All Other Required Approvals and Relief* (Ky. PSC Apr. 27, 2020), Order at 7-8.

A. I recommend that the Commission allocate the *return on* the regulatory asset for the deferred rate case expenses to CII and its shareholders, but allocate the amortization expense to the Company's customers as a form of sharing between CII shareholders and the Company's customers.

This recommendation is necessary to ensure that the costs are equitably shared between the Company's ultimate shareholders and customers. Over a three-year amortization period, this will allocate approximately 13% of the total revenue requirement related to the instant proceeding to CII and approximately 87% to the Company's customers based on the as-filed revenue requirement.

In addition, this recommendation is necessary to ensure that the Company does not obtain excessive recovery of these costs as the regulatory asset is amortized and the underlying cost curve declines, ultimately to $0, without adjustment to the base revenues to reflect the declines in those costs.

Finally, this recommendation is consistent with the Commission's recent decisions in Case Nos. 2021-00214 and 2019-00271 as well as other proceedings.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $36,767 in the base revenue requirement and base rate increase. This amount is computed net of the effects of ADIT associated with the rate case expense deferral amounts that the Company had included in its filed revenue requirement. I will address separately the amortization of estimated rate case costs in a separate section below.

E. Remove Regulatory Asset for Oracle Fusion Implementation Costs

Q. Describe the Company's request to include a regulatory asset in rate base for implementation and support costs incurred for its Oracle Fusion Enterprise Resource Planning ("ERP") system.

A. Corix Regulated Utilities (US) ("CRU") embarked during 2019 and 2020 on the implementation of "a new ERP system, a cloud-based system known as Oracle Fusion" that is "being used to maintain the Company's accounting, human resources management, accounts payables/receivables, and fixed asset ledgers."[49] CRU incurred both capital and expense costs associated with the implementation. The Company's allocated share of the capitalized costs are included in rate base and are being amortized, so the return *of* and *on* those assets are included in the revenue requirement. The Company also incurred $22,803, its allocated share of CRU implementation costs, in costs that were expensed when incurred following Generally Accepted Accounting Principles ("GAAP") guidance. The Company later reclassified the expenses and included them as additional deferred rate case costs in account 312.[50] The Company seeks regulatory asset treatment for the $22,803 and also requests amortization of these costs over three years.[51] The Company included a 13-month average of $19,002 as an increase in rate base for these implementation costs and also included a subtraction for the related ADIT of $6,816.[52]

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[49] Kilbane Testimony at 26.
[50] Refer to the June 2022 trial balance provided in Water Service Kentucky's response to AG 1-77, at cell rows 390-391.
[51] Kilbane Testimony at 25.
[52] Water Service Kentucky's responses to AG 2-40 and AG 2-41. See Exhibit___(RAF-14) and Exhibit___(RAF-15). I compute the ADIT effects of the temporary difference reflected in this response based on the amounts of applicable ADIT included in the as-filed revenue requirement. See the electronic workpapers filed with my Direct Testimony.

Q. When were the Oracle Fusion ERP implementation costs incurred?

A. According to the detail accounting data provided in response to discovery, these implementation expense costs were all incurred during 2019 and 2020.[53]

Q. Did the Company seek Commission authorization for the establishment of a regulatory asset prior to incurring the costs in question?

A. No. The Company confirmed this fact in response to discovery.[54] Instead, the costs were expensed as incurred during 2019 and 2020 and later appear to have been deferred as an additional rate case expense.

Q. What is your recommendation?

A. I recommend that the Commission disallow the request to establish a regulatory asset and amortize the Oracle Fusion ERP implementation costs. The Company has not previously had Commission authorization to defer these 2019 and 2020 expenses on its accounting books and the costs should have remained as expensed in the years they were incurred.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $9,122 in the base revenue requirement and base rate increase. $1,194 of this amount represents a reduction in the return on rate base, while

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[53] Water Service Kentucky's response to AG 1-34. I have not attached a copy due to the voluminous nature of the transactions detail.

[54] Water Service Kentucky's response to Staff 2-11. I have attached a copy of this response as my Exhibit___(RAF-16).

$7,928 represents a reduction of amortization expense, after gross-up for Commission assessment fees and bad debt expense.

F. Reflect Allocated Share of Reserve for Chicago Office Rent

Q. Describe the liability reserve associated with Chicago office rent costs and the amount allocated to the Company.

A. Water Service Corporation's ("WSC") office is in Chicago and a portion of the rent expense is allocated each month to the Company as an affiliate cost. WSC also allocates a reserve balance related to this lease and the Company records that reserve as an Other Non-Current Liability on its balance sheet. The Company described this reserve balance and its willingness to reflect it in the revenue requirement in response to discovery as follows:[55]

> This balance reflects the reserve created by the rent abatements and Tenant Improvement Credits included in the WSC's Chicago office lease, which are created by the lease accounting requirements to capture the difference in rent paid and the straight-line expense recorded over the lease term. As tenant improvements funded by the agreement's credit are included in WSC's allocated fixed assets and CRU's recorded rent expense exceeded its payments due to rent abatement for the first 27 months of the lease, the Company is agreeable to including the WSCK allocated portion of rent liability in its rate base. The Company has attached an updated balance for the 13-month average for 2023, please see Excel file AG DR 1-116 Chicago Rent Schedule.xlsx.

The Company calculated the 13-month average of its allocated share of the reserve to be $72,110.[56] It did not reflect these costs as a reduction to rate base in its filing.

[55] Water Service Kentucky's response to AG 1-116. I have attached a copy of this response as my Exhibit___(RAF-17).
[56] *Id.*

Q. What is your recommendation?

A. This Chicago office rent liability reserve balance is akin to cost-free capital supplied by a vendor to the Company. The Company has recognized this in response to discovery by agreeing to reflect a rate base reduction for its allocated portion. Since the Company did not originally reduce rate base for its allocated share of the Chicago Office rent reserve and has agreed that it is appropriate to do so, I recommend that rate base be reduced by $72,110.

Q. What is the effect of your recommendation?

A. The effect is a reduction of $7,063 in the base revenue requirement and base rate increase.

G. Reduce Forecast New Vehicle Costs

Q. Describe the new vehicle costs that the Company included in its projected revenue requirement.

A. The Company included the purchase of two new work trucks as part of its projected test year revenue requirement. It included the purchase of one vehicle at the estimated cost of $41,600 during 2022 and the cost of another in 2023 at the estimated cost of $43,264.[57] The Company assumed that the 2023 work truck would be the same vehicle as the 2022 purchase, escalated for a 4% cost of living increase. The vehicles to be replaced include a 2008 Chevrolet Silverado and a 2011 Toyota Prius, both of which have been fully depreciated.[58] The test year rate base costs for the new vehicles

[57] Wilson Testimony at 8.
[58] Water Service Kentucky's response to AG 1-103. I have attached a copy of this response as my

includes the full cost of the projected 2022 purchase and the 13-month average of the 2023 purchase, which is projected to be April 1, 2023.

Q. Has the Company placed its order for the 2022 purchase yet?

A. Yes. According to the response to discovery,[59] the Company placed an order for a 2022 Chevrolet Colorado truck on July 15, 2022 for a cost of $29,259 with all taxes and fees included. This price is $12,341($41,600 – $29,259) less than the amount projected in the Company's Application. The Company also stated in discovery that it plans to purchase a 2023 model of the same truck in 2023.[60] Assuming the same 4% cost of living increase in costs, the 2023 truck cost would be approximately $30,429, which is $12,835 less than the amount projected in the Company's Application.

Q. What is your recommendation?

A. I recommend that the Commission reduce the projected new vehicle costs in the test year to align them with actual purchase cost data. The cost savings for the 2022 purchase is applicable for the entire projected test year, while the savings for the 2023 purchase is applicable for only nine months assuming an April 1, 2023 purchase.

Q. What is the effect of your recommendation?

Exhibit___(RAF-18).

[59] Water Service Kentucky's response to Staff 2-18(b)(2). I have attached a copy of this response as my Exhibit___(RAF-19).

[60] Water Service Kentucky's response to AG 1-44(d). I have attached a copy of this response as my Exhibit___(RAF-20).

A. The effect is a reduction of $4,794 in the base revenue requirement and base rate increase. $1,847 of this amount represents a reduction in the return on rate base, while $2,947 represents a reduction of depreciation expense, after gross-up for Commission assessment fees and bad debt expense.

H. Remove Asset ADIT Associated with Bad Debt Reserve

Q. Describe the ADIT balances associated with the Company's bad debt reserve that were included in rate base.

A. The Company included the following two asset ADIT balances related to its bad debt reserve in its projected test year rate base:[61]

Account 255001 Deferred Federal Tax-Bad Debt	$66,133
Account 255002 Deferred State Tax-Bad Debt	$18,084
Total Bad Debt Reserve Asset ADIT	$84,217

The Company adds the bad debt reserve asset ADIT to rate base, but it does not subtract the related temporary difference (the liability bad debt reserve balance) from rate base. The bad debt reserve liability is the same as the temporary difference between book and tax deduction timing that results in the ADIT. Its balance represents the difference between the cumulative amounts of bad debt expense recorded each month and the actual accounts receivable balances written off. The tax deduction for bad debt expense is also only allowed when the actual accounts receivable is written off.

[61] Water Service Kentucky's responses to AG 1-70 and AG 2-44. I have attached copies of these responses as my Exhibit___(RAF-21). These balances in the Company's application are based on the amount of the bad debt reserve liability as of December 31, 2021.

Q. Does the Company's addition of these asset ADIT amounts to rate base create a mismatch between the temporary difference and the related ADIT for ratemaking purposes?

A. Yes. This mismatch is extremely problematic because it fails to reflect the economic substance of the bad debt reserve liability. This approach assumes that the Company has prepaid income taxes on the bad debt reserve liability, or temporary difference, and incurs financing costs on the ADIT amounts, but incorrectly assumes that the bad debt reserve liability does not result in savings in financing costs.

Q. What is your recommendation?

A. I recommend that the Commission reject this asset ADIT addition to rate base unless it reflects the related temporary difference as a subtraction from rate base. They are interrelated and inseparable and must be matched to properly reflect the Company's costs. Alternatively, the Commission could allow the asset ADIT additions to rate base and subtract the related temporary difference as a subtraction from rate base. This alternative recommendation more closely follows the economics and more accurately reflects the avoided financing costs for this liability.

Q. What is the effect of your recommendation?

A. The effect is a reduction to rate base of $84,217 and a reduction in the base revenue requirement and base rate increase of $8,249.

I. Cash Working Capital is Overstated and Should be Reduced to $0 in the Absence of A Properly Performed Lead/Lag Study

Q. Please describe the Company's request for a cash working capital allowance in rate base.

A. The Company included a cash working capital ("CWC") allowance of $344,701 based on the one-eighth operations and maintenance ("O&M") expense methodology.[62]

Q. Is this methodology reasonable?

A. No. It is outdated and inaccurate and it does not measure the timing of cash receipts or disbursements for revenues and expenses. The methodology is simple, but does not reflect the leads and lags in the Company's operating cash flows. Only the lead/lag study approach measures these leads and lags and accurately determines the average investment by either the Company's customers or its investors.

Q. What has the Commission ruled in recent proceedings regarding the reflection of cash working capital?

A. The Commission has ruled in several very recent cases that not only should cash working capital estimates be based on lead/lag studies, but also that those studies should exclude amounts associated with noncash expenses. Duke Energy Kentucky, Inc. proposed in its most recent gas base rate case that cash working capital be set at $0 in lieu of submitting a properly performed lead/lag study.[63] The intervening parties

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[62] Kilbane Testimony at 23-24 and Application, Exhibit 28.3. Even though Mr. Kilbane described the calculation of the amount added to rate base as one-eighth of the O&M expense and Taxes Other than Income, the calculation was based only on the projected level of O&M expense included by the Company.

[63] Case No. 2021-00190, *Electronic Application of Duke Energy Kentucky, Inc. for 1) An Adjustment of the Natural Gas Rates Rates; 2) Approval of New Tariffs, and 3) All Other Required Approvals, Waivers, and Relief* (Ky. PSC Dec. 28, 2021), Order at 15.

agreed to that amount as part of a settlement, but the Commission took the matter one step further when it made the following statements:[64]

> The Commission has long stated that the most accurate way to determine the amount of CWC component of rate base is a lead-lag study. For that reason, the Commission finds that Duke Kentucky should be required to submit a lead/lag study in all general rate cases it files until further Order by the Commission.

The Commission also ruled in the last Atmos Energy Corporation rate case that "[n]oncash expenses are not appropriate to include in the CWC determination" and that "noncash items should be removed from the lead/lag study."[65] Finally, the Commission put all Kentucky utilities on notice in a recent Columbia Gas of Kentucky, Inc. rate case that it will be requiring the submission of properly performed lead/lag studies in future rate case proceedings. The Commission stated the following in its Order in that case:[66]

> The Commission finds that, for settlement purposes, the adjustment made to include the Attorney General's proposed adjustment is appropriate and that no further adjustment is necessary. However, the Commission notes that its acceptance of the proposed adjustment does not necessarily represent an opinion that the Commission approves of Columbia Kentucky's cash working capital practices or the methods used in its lead/lag study. Furthermore, the Commission places Columbia Kentucky and all other utilities on notice that in any future rate cases, a lead/lag study is to be performed and shall exclude noncash items and balance sheet adjustments.

Q. Water Service Kentucky states in testimony that use of the one-eighth methodology is consistent with the methodology used in prior Water Service

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[64] *Id.*
[65] Case No. 2021-00214, *Electronic Application of Atmos Energy Corporation for An Adjustment of Rates*, (Ky. PSC May 19, 2022), Order at 20.
[66] Case No. 2021-00183, *Electronic Application of Columbia Gas of Kentucky, Inc. for an Adjustment of Rates; Approval of Depreciation Study; Approval of Tariff Revisions: Issuance of a Certificate of Public Convenience and Necessity; and Other Relief* (Dec. 28, 2021), Order at 14.

Kentucky cases.[67] Have the Company's rates been set based on the level of cash working capital in rate base in the last several proceedings?

A. No. The Company's rates have been set based on the operating margin method, which does not rely upon the level of cash working capital or rate base in order to set rates. The Company was required to compute the level of net investment rate base in those proceedings only for administrative filing requirements, but the rates were not ultimately set based on net investment rate base. The Company was ordered by the Commission in the last rate case to file its next case based upon a rate base/rate of return methodology.[68] Thus, this rate base issue is really a matter of first impression for Water Service Kentucky, but still subject to the Commission's prior decisions.

Q. Did the Company refuse to provide a lead/lag study in response to discovery?

A. Yes. The Company objected to the provision of such a study in response to discovery, citing to the fact that it had not performed such a study and that it had not retained a consultant to perform such a study.[69] As part of the same response, the Company cited to several cases in which it was determined that the one-eighth method was reasonable. All but two of the cases cited in that response had order dates associated with them ranging from 1990 to 2003, far older than the recent orders cited above. The two cases that were more recent were both Kentucky-American Water Company cases, Case. Nos. 2021-00434 and 2014-00390.[70] However, it should be noted that these two

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[67] Kilbane Testimony at 23-24.

[68] Case No. 2020-00160, *Electronic Application of Water Service Corporation of Kentucky for General Adjustment in Existing Rates* (Ky. PSC Dec. 8, 2020), Order at 46.

[69] Water Service Kentucky's response to AG 1-63. I have provided a copy of this response as my Exhibit___(RAF-22).

[70] Case No. 2021-00434, *Electronic Application of Kentucky-American Water Company for an Alternative Rate Adjustment* (Ky. PSC Sept. 2, 2022); Case No. 2014-00390, *Application of Kentucky-American Water Company*

specific cases concern Kentucky-American Water Company's wastewater operations that only serve approximately 1,378 customers.[71] As such, the revenue requirement was calculated on the operating margin method in those cases and not based upon a return on rate base method. Thus, rates were not based on the level of cash working capital in those cases.

Q. What is your recommendation?

A. I recommend that the Commission set the Company's cash working capital at $0 in the absence of a proper lead/lag study, even though other properly performed lead/lag studies performed for Kentucky utilities have yielded negative cash working capital results. I further recommend that the Commission direct the Company to reflect cash working capital in rate base calculated using a properly prepared lead/lag study in all future rate cases.

Q. Have you quantified the effect of your recommendation?

A. Yes. The effect is to reduce the revenue requirement by $33,762. I multiplied the Company's proposed cash working capital times the Company's grossed-up rate of return.

III. OPERATING INCOME ISSUES

A. Increases in Operating Expenses in Recent Years

for an Adjustment of its Wastewater Rates Pursuant to 807 KAR 5:076 (Ky. PSC July 2, 2015).

[71] Case No. 2021-00434, *Electronic Application of Kentucky-American Water Company for an Alternative Rate Adjustment* (Ky. PSC Sept. 2, 2022), Order at 3.

Q. Describe the Company's changes in operating revenues and expenses in recent years and projected for the test year.

A. The Company provided the following operating revenue and expense data for the year beginning in 2017 and through the projected test year in response to discovery.[72] The table below summarizes this data. I summed the expenses by year and computed the year-over-year increase percentages at the bottom of the table.

[72] Water Service Kentucky's response to AG 1-82 and AG 1-84 Excel attachment named AG_DR_1-082_and_084_-_IS_and_DS at worksheet tab Income Statements. I have attached the narrative portion of these responses and the printout of the referenced worksheet tab as my Exhibit__(RAF-23).

Description	2017	2018	2019	2020	2021	Base Period *	Forecasted Period
Operating Revenues							
Service Revenues - Water	2,414,588	2,472,294	2,736,483	2,772,211	3,261,216	3,254,466	3,261,891
Service Revenues - Sewer	177,741	118,021	144,929	116,580	137,505	-	-
Miscellaneous Revenues	62,803	56,935	58,287	34,418	7,698	297	297
Uncollectible Accounts Exp.	(45,687)	(48,619)	(59,480)	(96,792)	(202,899)	(127,834)	(128,126)
Total Operating Revenues	2,609,446	2,598,630	2,880,220	2,826,416	3,203,521	3,126,929	3,134,063
Maintenance Expenses							
Salaries and Wages	-	-	-	-	-	-	-
Purchased Power	101,367	106,395	121,347	132,618	114,484	114,865	114,865
Purchased Water / Sewer	123,204	123,830	125,956	126,960	133,471	124,398	123,204
Maintenance and Repair	127,934	101,994	180,336	167,982	207,470	182,935	176,218
Maintenance Testing	43,482	30,039	36,749	41,472	37,493	25,028	25,028
Meter Reading	-	-	-	-	-	-	-
Chemicals	108,012	99,159	120,785	114,153	121,833	100,858	103,885
Transportation	28,507	38,705	43,057	29,059	44,146	43,119	48,835
Operating Exp. Charged to Plant	(110,733)	(73,100)	(58,812)	(63,754)	(34,316)	(46,677)	(138,212)
Outside Services - Other	39,671	155,639	174,679	57,383	32,216	36,285	23,411
Total	461,444	582,663	744,098	605,873	656,797	580,811	477,234
General Expenses							
Salaries and Wages	790,838	842,189	890,157	958,948	877,326	881,240	936,694
Office Supplies & Other Office Exp.	60,149	62,205	92,830	107,696	47,345	52,742	51,492
Regulatory Commission Exp.	69,744	78,551	53,965	49,500	55,594	51,318	160,706
Pension & Other Benefits	183,280	196,194	221,756	233,279	233,995	253,009	309,783
Rent	12,269	16,823	32,856	33,061	15,654	18,778	20,025
Insurance	75,288	77,927	72,429	73,477	70,948	104,265	113,401
Office Utilities	53,765	57,226	44,309	40,659	17,528	24,538	20,708
Miscellaneous	33,336	25,372	40,896	182,152	677,645	643,137	667,561
Total	1,278,669	1,356,487	1,449,197	1,678,772	1,996,034	2,029,025	2,280,371
Total Maint. and General Expenses	1,740,114	1,939,150	2,193,295	2,284,645	2,652,831	2,609,836	2,757,604
% Increase		11%	13%	4%	16%	-2%	6%
Total Maint. and General Expenses and Uncollectible Exp.	1,785,800	1,987,769	2,252,775	2,381,437	2,855,730	2,737,670	2,885,730
% Increase		11%	13%	6%	20%	-4%	5%

Water related service revenues increased in 2019 and 2021 due to the base rate increases resulting from the last two base rate cases. Had it not been for the rate increases, these revenues would have remained fairly flat over the years. Sewer related revenues, $137,505 in 2021, ended effective December 31, 2021, upon the termination of the wastewater contract between the Company and the city of Clinton. I will discuss this contract termination in more detail below. Miscellaneous revenues started decreasing in 2020 due to the termination of service reconnection charges and are virtually non-existent in the test year.[73] Bad debt, or uncollectible, expense was reflected by the Company as a negative revenue amount[74] each year, but I will refer to it below as an additional operating expense. Bad debt expense increased significantly in 2020 and 2021 due primarily to the ramifications of Covid 19. I will discuss the increase in bad debt expense in more detail below.

Of greater concern than the changes in revenues is the explosion of operating expenses over the same time period, especially in 2021 and in the test year. When combining the total maintenance, general, and bad debt expenses for this time period, the average expense increase each year since 2017 amounted to almost 9%. The average increase in expense would have been even more had it not been for the removal of certain operating expenses starting in 2022 due to the termination of the Clinton wastewater contract. The year with the highest expense increase was in 2021. In that year alone, operating expenses increased by $474,293, or approximately 20%. Even if the increase for bad debt expense is not considered, expenses increased in 2021 by approximately 16%. When asked to describe all major known reasons for the 2021 increase in expenses over 2020 levels, the Company provided the following response:[75]

> Bad debt expense was approximately $97,000 in 2020, in 2021 it was approximately $203,000. Salaries increased by approximately $100,000 after a reorganization and accounting of certain personnel and standard merit increases. In 2021, legal expenses exceeded that in 2020 by approximately $20,000 due to higher activity in increasingly complex legal matters.

[73] Water Service Kentucky's response to AG 2-63. I have provided a copy of this response as my Exhibit___(RAF-24).
[74] The Company included the amount of uncollectible expense as a negative revenue amount in the Application, Exhibit 33, line 4.
[75] Water Service Kentucky's response to AG 1-80. I have attached a copy of this response as my Exhibit___(RAF-25).

> Transportation costs also increased by $15,000 because of higher fuel costs and more vehicle repairs. Captime decreased by $25,000 because of the mix of recurring construction activities. Deferred Maintenance increased by approximately $25,000 in 2021 due to annualization of amortization for tank rehabilitation projects. All other increases are assumed to be caused by inflationary and other market factors.

The specific items noted above account for approximately $291,000 out of the $474,293 increase in expense noted above. This means that the Company assumes that there was an increase in expenses in 2021 of approximately $183,293, or approximately 8%, due only to inflationary and other market factors.

Q. Upon review of the various expense categories in the table above, does one category of expenses stand out?

A. Yes. The Company began to record all allocations of support service expenses from affiliates to miscellaneous expense during the latter half of 2020 and fully in 2021. Prior to that, these types of costs were posted to the various expense accounts that reflected the various services provided.[76] Expense decreases are reflected in the other expense categories corresponding to the increases in miscellaneous expense.

Q. Do you make a specific recommendation regarding the overall level of expense increases over the last several years and for the test year?

A. No. However, I do make recommendations below regarding the level of specific expense amounts projected for the test year. I present the data above to inform the Commission about the very concerning level of expense increases in recent years and

[76] Water Service Kentucky's response to Staff 3-22. I have attached a copy of this response as my Exhibit___(RAF-26).

projected for the test year to prompt additional scrutiny concerning the Company's revenue requirement request.

B. Reduce Projected Increase in Payroll Expense and Related Payroll Taxes

Q. Describe the Company's forecast for payroll expense and the related payroll taxes.

A. The Company's projections of payroll expense associated with total salaries and wages for the base year and forecast year included the assumption that all vacancies would be filled and that no other vacancies would occur.[77] The Company completed an annualized detailed projection for base year and forecast year base wages, overtime, holiday pay, on-call wages, and deferred compensation and summarized the results in Exhibit 32 of its Application. Annualized base year expense was projected to be $861,062, while annualized forecast test year expense was projected to be $936,694.[78] This equates to a projected test year increase in total salaries and wages of 8.8% over the annualized base year amounts. Much of the increase relates to market pay adjustments that it projects to be made in 2023. The Company explained in response to discovery that the "forecasted increases for 2023 above an estimated 3% merit increase are due to the market pay adjustment implemented concurrently."[79]

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[77] Water Service Kentucky's response to AG 1-7. I have attached a copy of this response as my Exhibit___(RAF-27).
[78] Application Exhibit 32 at line 6.
[79] Water Service Kentucky's response to AG 1-3(n). I have attached a copy of this response as my Exhibit___(RAF-28).

Q. Can you briefly describe the market pay analysis performed by the Company to support the projected 2023 market pay increases above the normal 3% merit pay increase?

A. Yes. The Company engaged ScottMadden, Inc. to perform a wage and benefit study and that study was sponsored by Company witness Quentin M. Watkins with his Direct Testimony in this case. The study was later revised and refiled along with the Supplemental Direct Testimony of Mr. Watkins in this case on August 16, 2022. The results of the revised study indicates that base pay for 2022 is 8% below the market midpoint, while total pay including all health insurance and retirement benefits for 2022 is 8% above the market midpoint.[80] The same revised study indicates that with the 2023 market pay increases projected for 2023, the 2023 base pay will be 2% below the market midpoint.[81] The revised study did not project the variance compared to the market midpoint in total pay including all health insurance and retirement benefits for 2023. The revised study reflected a higher percentage below the market midpoint compared to the original study, primarily because the deferred compensation for the Senior Vice President was no longer included as part of the base pay analysis.

Q. Should ratepayers have to pay for increases in base pay to bring it closer to market midpoint amounts if the Company's total pay is already 8% above the market midpoint?

[80] Supplemental Direct Testimony of Quentin M. Watkins ("Watkins Supplemental Testimony") at 3-4.
[81] *Id.*

A. No, especially after the large pay increases that were given of approximately $100,000 during 2021 as noted by the Company in the discovery response cited above.[82]

Q. Do you have another concern with the comparison of market midpoint base pay amounts as presented by the Company?

A. Yes. The comparison as presented does not differentiate between the wage amounts of local employees, in which 100% of the base pay amounts accrue to the Company, and the wage amounts of employees primarily residing in Illinois and Ohio, in which only allocated portions of the base pay amounts accrue to the Company. Excerpted below is a portion of a table included in response to discovery[83] that shows the determination that the 2022 base pay amounts were 8% below market midpoint.

#	Position	WSCK Base Compensation - 2022	WSCK Base Compensation - 2023	% Increase 2022 to 2023	Market Midpoint for Base Comp - 2022	WSCK % of Mkt Midpoint for Base Comp - 2022
1	Compliance Manager	$ 77,250	$ 77,250	0.0%	$ 105,880	73%
2	Dir. Engineering & Asset Management	$ 129,854	$ 137,762	6.1%	$ 159,048	82%
	Dir. Financial Planning & Analysis	$ 138,000	$ 138,000	0.0%	$ 165,600	83%
3	Field Tech I	$ 34,380	$ 39,146	13.9%	$ 42,495	81%
4	Field Tech I	$ 36,852	$ 39,146	6.2%	$ 40,853	90%
5	Field Tech I	$ 36,150	$ 43,056	19.1%	$ 42,495	85%
6	Field Tech I	$ 33,592	$ 39,146	16.5%	$ 42,495	79%
7	Field Tech I	$ 34,029	$ 39,146	15.0%	$ 42,495	80%
8	Financial Planning & Analysis Manager	$ 120,000	$ 127,308	6.1%	$ 124,132	97%
9	GIS Analyst	$ 67,600	$ 71,717	6.1%	$ 76,286	89%
10	KY Operations Apprentice	$ 31,200	$ 32,136	3.0%	$ 42,022	74%
11	Lead Water-Wastewater Operator	$ 53,560	$ 66,560	24.3%	$ 57,053	94%
12	Lead Water-Wastewater Operator	$ 65,952	$ 66,560	0.9%	$ 57,053	116%
14	Senior Vice President	$ 259,276	$ 259,276	0.0%	$ 285,304	91%
15	State Operations Manager	$ 82,003	$ 86,997	6.1%	$ 97,023	85%
16	Water-Wastewater Operator I	$ 35,589	$ 53,082	49.2%	$ 41,343	86%
17	Water-Wastewater Operator I	$ 45,427	$ 53,082	16.8%	$ 42,440	107%
18	Water-Wastewater Operator II	$ 72,010	$ 78,065	8.4%	$ 49,123	147%
19	Water-Wastewater Operator II	$ 53,622	$ 59,467	10.9%	$ 49,123	109%
					Weighted Average	92%

[82] Water Service Kentucky's response to AG 1-80. See Exhibit___(RAF-25).
[83] Water Service Kentucky's supplemental response to AG 1-41. I have attached this response as my Exhibit___(RAF-29).

The following positions, with the related allocation percentages for costs allocated to the Company, are held by employees outside of Kentucky in Chicago, IL and Cleveland, OH.

Compliance Manager	13.65%
Dir. Engineering and Asset Management	13.65%
Dir. Financial Planning & Analysis	1.01%
Financial Planning & Analysis Manager	22.15%
GIS Analyst	13.65%
Senior Vice President	20.94%

The base wages for several of these employees were considerably below the cited market midpoint, bringing down the overall weighted average comparison. Failure to perform the comparisons based on only allocated portions of base pay for these employees serves to skew the results. In addition, the market midpoints for the non-Kentucky employees were determined based on the market midpoints in the regions in which those employees are currently employed. Base wage comparisons made for employees in Chicago, IL and Cleveland, OH would certainly be higher than if the comparisons were made to market positions within the Company's Kentucky service territories.

Q. What is your recommendation?

A. I recommend that the Commission limit the projected test year wage increases to an average of only 3% to be consistent with normal merit raise percentage increases. This amounts to a reduction in payroll expenses of $49,716. I also recommend that payroll taxes expense be reduced in the amount of $3,803, which I compute using the FICA rate of 7.65% associated with the payroll expense decrease that I recommend.

Q. What is the effect of your recommendation?

A. The combined effect of my recommendations to reduce payroll and related payroll taxes expense is an expense reduction of $53,519. This amounts to a reduction of $55,823 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

C. Remove Incentive Compensation Tied to Financial Performance

Q. Describe the Company's incentive compensation plans and the amounts of incentive compensation expense included in the test year.

A. Some employees of the Company and its affiliates participate in two separate incentive compensation plans, the Deferred Long-Term Compensation Plan (Long Term Incentive Plan or "LTIP") and the Employee Annual Deferred Incentive Plan ("EIP"). Costs from these plans are allocated to the Company based on its allocated responsibility share. There are no local employees that are 100% dedicated to the Company participating in the plans. The Company confirmed in discovery that it removed the vast majority of costs associated with these plans from the revenue requirement[84] and the removal is reflected on Exhibit 29, Schedule C in the Application. In fact, all incentive compensation costs for the Corporate Services employees were removed as excluded costs before allocation to the Company. However, an allocated share of [redacted][85] of the Senior Vice President's projected EIP payout salary deferral was included in the revenue requirement.

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[84] Response to AG 1-66. I have attached the narrative portion of this response as my Exhibit___(RAF-30).

[85] Confidential version Excel file PSC_DR_1-49_Exhibits_18-32-29_-_Schedule_B_-_SW-Payroll_Taxes-Benefits CONFIDENTIAL attached to the response to Staff 1-49.

Q. Is a portion of the EIP target payout metrics tied to the financial performance of the Company?

A. Yes. The EIP plan document attached to discovery indicates that [redacted] of the EIP target metric payouts are based on the financial performance of the Company while [redacted] of them are based on nonfinancial operational measures.[86]

Q. Has the Commission consistently disallowed recovery of incentive compensation costs that are tied to financial performance measures?

A. Yes. In fact, the Commission reiterated its stance on the matter in its Order from the last Water Service Kentucky rate case when it made the following statement:[87]

> The Commission has consistently disallowed recovery of the cost of employee incentive compensation plans that are tied to performance measures because such plans benefit shareholders while ratepayers receive little benefit.

Q. What is your recommendation?

A. I recommend that the Commission follow its precedent and remove the amount of incentive compensation tied to financial performance included in the revenue requirement because such costs serve to benefit shareholders and not ratepayers.

Q. What is the effect of your recommendation?

A. [redacted] of the forecast payout during the test year and included in the revenue requirement amounts to $6,698. The effect of reducing the incentive compensation

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[86] Confidential EIP Plan Document attachment in Water Service Kentucky's response to AG 1-65 at 4-5.
[87] Case No. 2020-00160, *Electronic Application of Water Service Corporation of Kentucky for General Adjustment in Existing Rates* (Ky. PSC Dec. 8, 2020), Order at 19-20.

expense by $6,698 is a reduction of $6,986 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

D. Reduce 401(K) Match Amounts Corresponding to Historic Employee Participation

Q. Describe the Company's 401(k) match expense amount included in the test year.

A. The Company included $37,276 in expense in account 531002 in the test year applicable to its 401(k) match program.[88] To compute this level of expense, the Company assumed that it was fully staffed and that there were no vacancies for the assumed 19 employees and that all employees fully participated in the 401(k) program by matching 3% of each employee's total pay.[89]

Q. Does this amount represent a large increase in expense during the test year?

A. Yes. The $37,276 in 401(k) match expense represents an 81% increase over the base year level of expense and an 86% increase over the 2021 level of expense. The Company provided in discovery the annual expense amounts for the 401(k) match expense in account 531002 from 2017 through the forecast test year.[90] Those amounts are provided below.

2017	2018	2019	2020	2021	Base Period	Forecasted Period
16,704	20,358	23,567	25,604	20,007	20,554	37,276

[88] Application at Exhibit 29.14, line 2.
[89] Kilbane Testimony at 10.
[90] Water Service Kentucky's response to AG 1-84 Excel attachment named AG_DR_1-082_and_084_-_IS_and_DS at worksheet tab Pension and Other Benefits. I have attached the narrative portion of the response to AG 1-84 and the printout of the referenced worksheet tab as my Exhibit__(RAF-31).

Q. Is the Company's projection of 401(k) match expense reasonable?

A. No. There are two primary problems with the Company's projection. First, the projection assumes full employment for the entire year, a situation that the Company has not experienced in some time. Second, the projection assumes that all employees will fully participate in the 401(k) program up to the maximum 3% salary withdrawals each pay period. Traditionally, companies do not experience 100% participation in 401(k) programs. When asked why the expense increased so much in the projected test year, the Company confirmed that the increase "includes the difference caused by an employee not taking advantage of the full 401k match."[91] There is no reason to be assured that employee participation levels will magically increase during the test year.

Q. What is the 401K match expense amount incurred thus far in 2022?

A. The Company has incurred 401K match expense of only $14,218 through August 2022.[92] That amounts to only $21,328 on an annualized basis for 2022.

Q. What is your recommendation?

A. I recommend that the Commission reduce the 401(k) match expense to correspond more with the historic participation level for employees. I further recommend that the expense be based on the 2021 level of expense, increased by no more than 4.1% for 2022, based on the as-filed average annualized wage increases computed by the

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[91] Water Service Kentucky's response to AG 1-97. I have attached a copy of this response as my Exhibit___(RAF-32).
[92] Water Service Kentucky's response to AG 2-56. I have attached a copy of the narrative portion of this response and the applicable attachment page as my Exhibit___(RAF-33).

Company for that year, and 3.0% for 2023 to be consistent with my prior recommendation related to projected 2023 pay increases.[93] This equates to an expense level of $21,462 instead of the Company's projected amount of $37,276. I do not recommend modifying calculations related to filling vacancies since there is no assurance that the Company will ever be without vacancies, nor is there assurance that new employees will fully participate in the 401(k) program.

Q. What are the effects of your recommendations?

A. The effect of reducing the 401(k) match expense is a reduction of $15,815 in the level of expense and a reduction of $16,496 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

<u>E. Reduce Health Insurance Expense Corresponding to Historic Employee Participation</u>

Q. Describe the Company's health insurance expense amount included in the test year.

A. The Company included $188,595 in net expense in accounts 532005 and 532006 in the test year applicable to its health insurance costs.[94] To compute this level of expense, the Company assumed that it was fully staffed and that there were no vacancies for the assumed 19 employees and that all employees fully participated

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[93] Public version Excel file PSC_DR_1-49_Exhibits_18-32-29_-_Schedule_B_-_SW-Payroll_Taxes-Benefits_REDACTED_UPDATED 8.16.2022 attached to the supplemental response to Staff 1-49. The allocated share of base pay was $725,986 to start the base year, $756,107 to end the base year, and $821,181 to end the forecast test year.

[94] Application, Exhibit 29.14, lines 9-10.

based on their 2022 benefit elections if already employed.[95] According to the Company's response to discovery, the amounts reflected in expense and recorded in account 532005 represent the amounts withheld from employee paychecks for health benefits and acts as offsets to the gross employer costs that are reflected in account 532006.[96] The Company computed only the net employer costs for this case and included that net amount in account 532006.[97]

Q. Does this amount represent a large increase in expense during the test year?

A. Yes. The $188,595 in net health insurance expense represents a 21% increase over the base year level of expense and a 33% increase over the 2021 level of expense. Those percentages compare to an average increase of only 7% per year from 2017 through 2021. The Company provided in discovery the annual expense amounts for the health insurance amounts in accounts 532005 and 532006 from 2017 through the forecast test year.[98] Those amounts are provided below.

Account	Description	2017	2018	2019	2020	2021	Base Period	Forecasted Period
532005	Employee Insurance Deductions	(32,545)	(36,512)	(47,272)	(45,617)	(47,508)	(48,778)	-
532006	Health Insurance Claims	142,663	154,189	171,598	163,536	189,597	204,583	188,595
	Net Health Insurance Expense	110,117	117,677	124,326	117,919	142,089	155,805	188,595
	% Increase		7%	6%	-5%	20%	10%	21%

[95] Kilbane Testimony at 10.
[96] Water Service Kentucky's response to AG 1-97. See Exhibit___(RAF-32).
[97] *Id.*
[98] Water Service Kentucky's response to AG 1-84 Excel attachment named AG_DR_1-082_and_084_-_IS_and_DS at worksheet tab Pension and Other Benefits. See Exhibit__(RAF-31).

Q. Is the Company's projection of net health insurance expense reasonable?

A. No. There are two primary problems with the Company's projection. First, as with the 401(k) match expense projection, the health insurance expense projection assumes full employment for the entire year, a situation that the Company has not experienced in some time. Second, the Company's detailed calculation for health insurance benefits assumes only a 6% increase in premium costs for the test year over the base year amounts.[99] The Company responded in discovery that average premium costs increased by approximately 8% from 2021 to 2022.[100] Thus, a 10% increase in the estimated base year expense over the 2021 level and another 21% increase in expense in the forecast test year over the base year level are not reasonable.

Q. What is the net health insurance expense amount incurred thus far in 2022?

A. The Company has incurred net health insurance expense of only $86,041 through August 2022 ($118,108 in account 532006 and -$32,067 in account 532005).[101] That amounts to only $129,062 on an annualized basis for 2022, which is far below the expense level for both 2021 and the base year as reflected above.

Q. What is your recommendation?

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[99] Public version Excel file PSC_DR_1-49_Exhibits_18-32-29_-_Schedule_B_-_SW-Payroll_Taxes-Benefits_REDACTED_UPDATED 8.16.2022 attached to Water Service Kentucky's supplemental response to Staff 1-49.
[100] Water Service Kentucky's response to AG 2-58. I have attached a copy of this response as my Exhibit___(RAF-34).
[101] Water Service Kentucky's response to AG 2-56. See Exhibit___(RAF-33).

A. I recommend that the Commission reduce the net health insurance expense to correspond more with the historic levels of expense. I further recommend that the expense be based on the 2021 level of expense, increased by no more than 8.0% for 2022 and another 6.0% for 2023 based on the average increase experienced in 2022 and the claimed test year increase percentage amount assumed in the Company's detail calculations. This equates to an expense level of $159,651 instead of the Company's projected amount of $188,595. I do not recommend modifying calculations related to filling vacancies since there is no assurance that the Company will ever be without vacancies, nor is there assurance that new employees will participate at the same benefit levels as estimated by the Company. Thus, these levels of expenses are not known and measurable.

Q. What are the effects of your recommendations?

A. The effect is a reduction of health insurance expense of $28,944 and a reduction of $30,190 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

Q. Do you have an additional recommendation regarding health insurance costs for which you have not quantified impacts?

A. Yes. The Company should be required to explain in detail why 2022 net health insurance costs recorded on its books through August appear to have decreased significantly and whether that pattern is expected to continue through the test year.

F. Reduce Company Paid Portion of Health Insurance Expense Based on BLS Averages

Q. What percentages of the health insurance premiums are paid by the Company for both single and all other coverage options?

A. The Company pays 80% of the health insurance premiums for single-only coverage and it pays 79% of the health insurance premiums for all other coverage options. The Company provided in response to discovery its various premium rates for different coverages and the portions paid by the Company and by employees applicable to 2022.[102]

Q. Has the Commission limited the recoverable amount of company-paid health insurance premiums based on Bureau of Labor Statistics ("BLS") averages?

A. Yes. The Commission has historically made it a practice to limit the recoverable portion of company-paid health insurance premiums to the most current BLS averages for single and family coverage. In a recent South Kentucky Rural Electric Cooperative rate case, the Commission authorized a reduction of premium costs corresponding with the BLS 2021 averages for single and family coverages of 78% and 66%, respectively.[103] These 2021 rates represent the most recent full-year average available.

Q. What is your recommendation?

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[102] Water Service Kentucky's response to AG 2-65. I have attached a copy of this response as my Exhibit___(RAF-35).

[103] Case No. 2021-00407, *Electronic Application of South Kentucky Rural Electric Cooperative Corporation for a General Adjustment of Rates, Approval of Depreciation Study, and Other General Relief* (Ky. PSC Jun. 30, 2022), Order at 9.

A. I recommend that the Commission reduce the recoverable health insurance expense to a more reasonable level based on the BLS 2021 averages for single and family coverages of 78% and 66%, respectively, to be consistent with Commission precedent.

Q. What are the effects of your recommendations?

A. The effect is a reduction of health insurance expense of $12,343 before consideration of the 15.3% health insurance expense reduction I recommended in the previous section. The incremental effect of the health insurance expense reduction after factoring in that 15.3% reduction amounts to a further reduction of health insurance expense of $10,449 and a reduction of $10,898 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

G. Reduce Legal Fee Expense By Removing Non-Recurring Expense

Q. Describe the Company's legal fee expense amount included in the test year.

A. The Company included $18,071 in expense in account 540400 in the test year for legal fee expenses.[104] To compute this level of expense, the Company averaged the expense amounts incurred for 2020 and 2021.[105]

Q. Does this amount represent a large increase in expense during the test year compared to other historic periods?

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[104] Application, Exhibit 29.11, line 4.
[105] Kilbane Testimony at 14.

A. Yes. The Company provided in discovery the annual expense amounts for legal fees expense in account 540400 from 2017 through the forecast test year.[106] Those amounts are provided below.

Account	Description	2017	2018	2019	2020	2021	Base Period	Forecasted Period
540400	Legal	3,453	251	2,615	9,642	27,461	30,936	18,071

Q. Is the Company's projection of legal fees expense reasonable?

A. No. The Company's forecasted expense level is based on the average of 2020 and 2021 expense amounts. As reflected in the legal fee expense comparison table above, costs exploded in those years, far exceeding the levels of expense incurred in years 2017 through 2019. The Company was asked in discovery to provide the reasons for the increase, provide copies of invoices incurred from 2020 through the most current period in 2022, indicate whether a portion of the invoices related only to the termination of the Clinton wastewater contract, provide 2022 costs to date, and indicate whether the higher expense levels should be considered recurring in nature.[107] In addition to the legal expense amounts shown above, the Company incurred $25,152 in legal expenses during the first eight months of 2022.[108] The Company responded to this discovery by indicating that there were two major cases with high costs during

[106] Water Service Kentucky's response to AG 1-84 Excel attachment named AG_DR_1-082_and_084_-_IS_and_DS at worksheet tab Outside Service. I have attached the narrative portion of these responses and the printout of the referenced worksheet tab as my Exhibit__(RAF-36).
[107] Water Service Kentucky's response to AG 2-54. I have attached a copy of the narrative portion of this response as my Exhibit___(RAF-37). I did not attach the legal invoice copies since they are heavily redacted and voluminous.
[108] *Id.*

the 2020 through 2022 timeframe, both of which have been resolved.[109] There was one personal-injury lawsuit, for which costs were incurred over all three years, and costs involving the termination of the Clinton wastewater contract summing to $4,794.[110] The table below shows the total legal costs for 2020 through 2022, with and without the costs associated with these two major cases.

	2020	2021	To Date 2022
Total Legal Fees	9,642	27,461	25,152
Less:			
Clinton Wastewater			(4,794)
Personal Injury Lawsuit	(7,140)	(24,792)	(18,423)
Remaining Legal Fees	2,502	2,670	1,935

The legal fee expense amounts not associated with the two major resolved cases are very similar to the amounts incurred in 2017 through 2019.

Q. Did the Company indicate that it considered the costs from these two major cases to be non-recurring?

A. No. Although the Company indicated that both these matters have been resolved, it stated that "utilities frequently have litigation and transactional legal expenses"[111] in addition to legal expenses related to regulatory services, property rights, and the provision of service to customers. Thus, the Company did not consider expenses related to these cases to be non-recurring in nature.

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[109] *Id.*
[110] *Id.*
[111] *Id.*

Q. Did the Company have any other personal injury lawsuits from 2017 through 2022 or other large transactional legal expenses such as the Clinton wastewater contract termination?

A. There were no other matters included on the invoice copies for 2020 through 2022 provided in response to discovery. Even though I do not have copies of the detailed legal invoice costs from 2017 through 2019 to review, the level of costs each year would indicate that similar costs were also not incurred in those years. Thus, I do not consider these special costs to be recurring.

Q. What is your recommendation?

A. I recommend that the Commission reduce the legal fee expense amount to correspond more with the historic level of expense after removal of the personal-injury lawsuit and Clinton wastewater contract termination fees. I further recommend that the level of expense be based on the average of legal fee expenses for each year 2017 through 2021, after removal for the two special cases cited above. This equates to an expense level of $2,298 instead of the Company's projected amount of $18,071, which is a reduction in expense of $15,773.

Q. What are the effects of your recommendations?

A. The effect is a reduction of $16,452 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

H. Remove Expenses Related to Termination of Clinton Wastewater Contract

Q. Describe the termination of the wastewater service contract between the Company and the city of Clinton.

A. The Company stated in testimony that it was no longer providing wastewater services for the city of Clinton effective December 31, 2021.[112] The Company further described in response to discovery that the Company and the city of Clinton mutually agreed to terminate the contract effective December 31, 2021, since the wastewater service contract was set to expire on March 3, 2022.[113]

Q. Did the Company reflect the removal of all Clinton wastewater revenues during the test year?

A. Yes. Revenues associated with the Clinton wastewater contract were $118,021 for 2018, $144,929 for 2019, $116,580 for 2020, and $137,505 for 2021 according to the Company's response to discovery.[114] There were no revenues associated with the Clinton wastewater services included in the forecast test year.[115]

Q. Did the Company likewise reflect the removal of all Clinton wastewater expenses during the test year?

A. No. The Company reflected the removal of some Clinton wastewater expenses during the test year, but not all. Expenses associated with the Clinton wastewater contract were $84,875 for 2018, $99,782 for 2019, $85,078 for 2020, and $88,555 for 2021

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[112] Direct Testimony of Seth Whitney ("Whitney Testimony") at 13.
[113] Water Service Kentucky's response to AG 1-27. I have attached a copy of this response as my Exhibit__(RAF-38).
[114] Water Service Kentucky's response to AG 1-81. I have attached a copy of this response as my Exhibit__(RAF-39).
[115] Application, Exhibit 29, line 3.

according to the Company's response to discovery.[116] These expenses were broken down each year by activity vendor and expense category. Of the $88,555 in expenses incurred during 2021, the Company determined that $48,629 in Clinton wastewater expenses would not be recurring in years after the contract termination.[117] The Company removed several of the large expense items that would not be recurring from the test year such as chemical costs, sewer utilities, and testing expenses. However, the Company did not properly remove three maintenance and repair expenses that it deemed to be non-recurring. The Company's discovery responses identified the following non-recurring amounts by account that should be removed from test year expenses:[118]

Account	Account Description	Amount
512022	Other Contracted Workers	$7,950
512900	Other Plant and System Maintenance	$3,296
513900	Other Materials and Supplies	$295
	Total	$11,541

The Company determined that the remainder, $39,926 ($88,555 total less $48,629 non-recurring) of the 2021 Clinton wastewater service expenses would be recurring in nature. The largest such expense incurred in 2021 was $31,133 for salaries and benefits. According to the Company, the two Clinton employees that performed the majority of this work devoted approximately 860 hours to the Clinton wastewater system.[119] Instead of reducing staff expenses starting in 2022, the employees' time was redirected to maintaining and repairing the Clinton water system. This amounts

[116] Water Service Kentucky's response to AG 1-81. See Exhibit__(RAF-39).
[117] Water Service Kentucky's response to Staff 2-7. I have attached a copy of this response as my Exhibit__(RAF-40).
[118] Water Service Kentucky's response to AG 1-94 and AG 2-42. I have attached a copy of these responses as my Exhibit__(RAF-41).
[119] Water Service Kentucky's response to AG 2-42. See Exhibit__(RAF-41).

to a gain of almost one-half of a full-time equivalent employee dedicated to the Clinton water system. The Company deemed other expenses to be fixed in nature such as transportation costs and office expenses, so those expenses were not removed from the revenue requirement.

Q. What is your recommendation?

A. I recommend that the Commission remove expenses of $11,541 in the test year for non-recurring expenses that the Company identified in discovery that it had not removed from the test year.

Q. What are the effects of your recommendations?

A. The removal of the additional Clinton wastewater expenses amounts to a reduction of $12,038 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

I. Reduce Fuel Expense

Q. Describe the amount of fuel expense that was projected by the Company.

A. The Company projected $33,438 in fuel expense in the test year.[120] This was based on historic usage for the twelve months ended June 30, 2021 of 8,530 gallons multiplied by the gas price of $3.92 per gallon on May 5, 2022 (8,530 x $3.92 = $33,438).[121]

[120] Application, Exhibit 29.10, line 2.
[121] Refer to the Excel file PSC DR 1-50 Fuel Cost Estimated attached to Water Service Kentucky's response to Staff 1-50.

Q. Have gas prices decreased somewhat in recent months?

A. Yes. Regular and diesel gas prices in the Company's area rose above the $3.92 per gallon average after May 5, 2022, but have since declined to an average level of $3.33 per gallon as of September 21, 2022, according to the Company's response to discovery.[122]

Q. What is your recommendation?

A. Since gas prices have fallen considerably in recent months, I recommend that the Commission update the fuel expense projection to reflect the most current average price per gallon available. I recommend that the projection be based on an average price per gallon of $3.33. This average price is fluid and volatile and can be adjusted to reflect current price conditions as they occur during the pendency of this proceeding.

Q. What are the effects of your recommendations?

A. The reduction to fuel expense amounts to $5,067 and this amounts to a reduction of $5,285 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

J. Remove Amortization Expense Related to Excessive Rate Case Legal Costs

Q. Describe the amount of rate case costs that the Company estimates for the instant rate case and the amortization expense included in test year expenses.

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[122] Response to AG 2-64. I have attached a copy of the narrative portion of this response as my Exhibit__(RAF-42).

A. The Company's filing includes an estimate for rate case costs to be incurred for this case of $459,316.[123] Based on an amortization period of three years, the rate case amortization expense included in the test year amounts to $153,105.

Q. Is the Company's projection of rate case costs and the related amortization reasonable when compared to amounts from the two most recent rate cases?

A. No. The Company's projection of rate case costs for this case is much higher than projected for the two prior rate cases. The table below provides a breakdown of projected rate case expenses by category from Case No. 2018-00208,[124] Case No. 2020-00160,[125] and from this case.[126]

Projected Rate Case Costs
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Category	Case No. 2018-00208	Case No. 2020-00160	Case No. 2022-00147
Legal Fees - Firm 1	90,000	143,375	158,875
Legal Fees - Firm 2			200,000
Consulting Fees	86,000	26,550	87,850
Administration	13,610	9,568	8,579
Travel	5,800	7,400	4,012
Total Estimated Cost	195,410	186,893	459,316

As can be seen in the above table, the high projection of costs in this case is driven primarily by the projected utilization of a second legal firm. Firm 1 in the table for Case No. 2022-00147 is identified as Sturgill, Turner, Barker & Moloney, PLLC based

[123] Kilbane Testimony at 15.
[124] Direct Testimony of Robert Guttormsen at 7 filed with the July 5, 2018 Application in Case No. 2018-00208.
[125] Direct Testimony of Robert Guttormsen at 22 filed with the June 1, 2020 Application in Case No. 2020-00160.
[126] Water Service Kentucky's supplemental response to Staff 1-12(c). I have attached a copy of this response as my Exhibit___(RAF-43).

in Lexington, KY, while Firm 2 is identified as Ice Miller LLP based in Indianapolis, IN. The projection of legal costs for this rate case is more than 250% more than they were for the 2020 rate case. In addition, it should be noted that total actual rate case costs authorized for Case Nos. 2018-00208 and 2020-00160 were lower than those originally projected and a rate case has been filed about every two years.[127]

Q. What is your recommendation?

A. I recommend that the Commission reduce the amortization expense associated with rate case costs to remove the $200,000 in costs associated with the second legal firm, Ice Miller LLP, projected to be involved in this rate case. The additional amount is unreasonable compared to prior rate case costs, especially when considering the requested base rate increase is only $1,047,688 and the entire revenue requirement as filed by the Company is $4,309,876.[128] In addition, the Company has not justified why the second firm is necessary and that the projected services from the two firms are not duplicative in nature. If costs from the second firm were added, then the costs of the local firm should have been decreased. The Company should bear full responsibility for the hiring of the second firm and the ratepayers should not bear any of those costs.

Q. What are the effects of your recommendations?

A. The effect of reducing the rate case amortization expense associated with the costs from the second legal firm amounts to a reduction of expense of $66,667 ($200,000 /

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[127] February 11, 2019 Order in Case No. 2018-00208 at 7, and December 8, 2020 Order in Case No. 2020-00160 at 21.
[128] Whitney Testimony at 4.

3) and a reduction of $69,537 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

K. Reduce Depreciation Expense Related to Company Error in Calculation

Q. Describe the Company's computation of test year depreciation expense in the filing.

A. The Company computed depreciation expense of $474,205 for the test year.[129] The depreciation rates utilized to perform these computations were the same as those authorized in the Commission's Final Order on Reconsideration in Case No. 2018-00208.[130]

Q. Did the Company's as-filed computations contain formula errors leading to an overstatement of depreciation expense?

A. Yes. The Company's as-filed computation included numerous large increases in test year depreciation expense compared to the base year, especially in the various computer system related accounts in which costs are mostly allocated to the Company from WSC. Discovery was issued to obtain the electronic workpapers for these calculations and also to obtain explanations regarding some of the large increases in expense. The Company responded to that discovery with corrected workpapers and with the explanation that it had inadvertently multiplied the deprecation rates by the wrong column of depreciable plant balances for all accounts that involved WSC

[129] Application at Exhibit 28, Schedule A at 3, and also reflected at Exhibit 29.19.
[130] Kilbane Testimony at 21.

allocated plant asset amounts.[131] The Company corrected the formula error, which led to a recomputed depreciation expense amount of $423,367, a reduction of $50,838 from the as-filed amount.[132]

Q. What is your recommendation?

A. I recommend that the Commission reduce the depreciation expense amount to reflect the correction of the Company's original calculation error.

Q. What are the effects of your recommendations?

A. The effect of reducing the depreciation expense by $50,838 equates to a reduction of $53,027 in the claimed base revenue requirement and base rate increase, after gross-up for Commission assessment fees and bad debt expense.

<u>L. Reduce Bad Debt Expense</u>

Q. Describe the Company's request for recovery of bad debt expense.

A. The Company included $169,278 in bad debt expense associated with uncollectible accounts in the forecast test year.[133] The amount was computed by multiplying the Company's projected service revenues of $4,309,579 by an unrounded factor of approximately 3.93%. This percentage was derived by averaging the ratio of bad debt expense to service revenues for the years 2019, 2020, and 2021.[134] The table below

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[131] Water Service Kentucky's response to AG 1-73. I have attached a copy of this narrative response and a printout of the corrected depreciation expense calculation from the Excel attachment as my Exhibit___(RAF-44). A portion of this Exhibit is highlighted in yellow, but nothing therein is confidential. The Company highlighted this portion of the revised calculation to bring attention to the updated amounts.
[132] *Id.*
[133] Application, Exhibit 29.2, line 10.
[134] Kilbane Testimony at 9.

shows the bad debt expense amounts, service revenues, and resulting bad debt percentages for 2017 through 2021 and for the first six months of 2022. The table also shows the simple average of 3.93% computed by the Company and the percentage I recommend based on my subsequent discussion.[135]

	2017	2018	2019	2020	2021	Jan-Jun 2022
Bad Debt Expense	45,687	48,619	59,480	96,792	202,899	41,627
Service Revenues	2,477,391	2,529,229	2,794,445	2,806,326	3,268,915	1,622,282
Bad Debt %	1.84%	1.92%	2.13%	3.45%	6.21%	2.57%
Average of 2019, 2020, and 2021				3.93%		
Average of 2017, 2018, 2019, and 2022				2.12%		

Q. Does the Company use bad debt reserve accounting?

A. Yes.[136] The Company records a bad debt expense provision pursuant to its estimate for the expense, which generally is the expense allowed for ratemaking purposes. The bad debt expense is added to the liability balance of the bad debt reserve. The Company then records write-offs (charge-offs), net of recoveries, as a reduction to the liability balance of the bad debt reserve. The balance in the bad debt reserve represents the cumulative balance of the bad debt expense recorded compared to the write-offs, net of recoveries.

[135] The data provided in this table is derived from the response to AG 2-45. I have attached a copy of this response as my Exhibit__(RAF-45).
[136] Water Service Kentucky's response to AG 2-51. I have attached a copy of this response as my Exhibit__(RAF-46).

Q. Are the increases for the bad debt expense amounts and percentage levels for 2020 and 2021 primarily related to the ramifications of Covid-19?

A. Yes. As reflected above, the bad debt expense amounts and percentages were fairly consistent from 2017 through 2019 and they seem to have begun to fall again during the first six months of 2022. The Company responded to discovery that it took the following actions related to collections, disconnections, and debt deferment due to Covid-19:[137]

> 03/11/2020 - Suspended all collections and severance activities in Kentucky.
> 01/06/2021– Per Kentucky Order, all Kentucky customers with delinquent debt were automatically placed on a 24-month deferred payment arrangement to assist customers with paying their utility bills.
> 10/30/2021 – Resumed all collection and severance activities in Kentucky.

These actions were appropriate and, in some cases, mandated by the Commission during large portions of 2020 and 2021. Customers needed a lifeline. Unfortunately, the result of these actions was that past due balances grew tremendously from March 2020 through October 2021 since there were no collection or severance activities being performed. Just before the start of 2022, collection and severance activities resumed and older-aged receivables began to fall again. The Company provided a snapshot of the receivables by aging category in response to discovery that is excerpted in the table below.[138]

[137] Water Service Kentucky's response to AG 2-52. I have attached a copy of this response as my Exhibit__(RAF-47).
[138] Water Service Kentucky's response to AG 2-47. I have attached a copy of this response as my Exhibit__(RAF-48).

	0-30 Days Old	31-60 Days Old	61-90 Days Old	91-180 Days Old	181+ Days Old	Loan & PA Cur Bal
12/31/2017	282,999	47,326	13,529	25,876	61,321	3,057
12/31/2018	222,310	49,398	15,777	26,296	68,764	3,812
12/31/2019	300,235	61,172	27,645	50,257	44,998	8,874
12/31/2020	353,446	86,066	58,607	125,442	182,770	14,997
12/31/2021	365,016	108,370	66,793	168,031	430,319	373,326
1/31/2022	419,950	143,950	74,390	154,152	454,090	367,893
2/28/2022	376,553	160,375	98,108	154,260	446,542	335,905
3/31/2022	314,022	117,883	95,433	147,661	286,105	276,872
4/30/2022	315,024	93,406	62,173	133,593	253,005	250,184
5/31/2022	276,908	92,568	54,158	143,476	250,289	236,362
6/30/2022	311,859	81,710	60,186	115,691	257,648	220,455

This data shows that the receivable in the 91-180 and over 180 days old buckets increased significantly during 2020 and 2021 and started to fall during 2022. The provision for bad debt expense, an estimate for the amount of accounts that may need to be written off at a later time, is based on percentages of primarily those two buckets, especially the one over 180 days old. That is why bad debt expense rose so significantly in 2020 and 2021.

Q. Is the Company's projection of bad debt expense reasonable?

A. No. It is based on the average bad debt percentage for the years 2019, 2020, and 2021. Two of these years were heavily impacted by Covid-19 when policies changed to assist customers on an expanded basis. Thus, results from these years should not be used as a guide to determine bad debt percentage levels on a going-forward basis.

Q. What is your recommendation?

A. I recommend that the Commission reduce the bad debt percentage applied to service revenues from 3.93% to 2.12% in order to determine the revenue requirement. The

2.12% represents the average bad debt percentage for the years 2017, 2018, 2019, and 2022. I have removed consideration of 2020 and 2021 bad debt percentage levels since they were such strong outliers.

Q. What are the effects of your recommendations?

A. The effect of reducing the projected bad debt factor from 3.93% to 2.12%, and applied to the Company's projected revenues is a reduction of $79,809 in the claimed base revenue requirement and base rate increase. The effect of synchronizing the projected bad debt expense percentage with the sum of the AG's other revenue requirement recommendations results in an increase of $9,056 in the claimed base revenue requirement and base rate increase.

IV. COST OF CAPITAL ISSUES

A. Changes to Capital Structure and Average Debt Rate Based on Recent Activity

Q. Has CRU, on behalf of the Company, recently issued different amounts of debt and at different interest rates compared to the projections in the Company's Application?

A. Yes. The Company's capital structure and cost of debt is based on its allocated share of CRU's capital components. The Company's Application projected that CRU would use proceeds from two new $50 million debt issuances as of October 1, 2022, to pay off its short-term revolving line of credit and provide additional capital before the start of the test year. In the Application at Exhibit 35, the interest rates assumed for these two new issuances were projected to be 4.05% and 4.30%. In response to discovery concerning updates to it plans, the Company explained that it had recently issued new debt of $50 million as of June 27, 2022, with a variable interest rate of only 3.86% as of August 31, 2022, and with a requirement to draw an additional $25 million amount within one year.[139] The Company provided an updated projection of the capital structure and cost of debt for the test year as part of the same discovery response that reflects a slightly lower overall cost of capital.[140] Since the debt issuance amount was lower than the amount in its Application, the Company now projects that it will not pay off the full amount of the short-term revolver line of credit, which had a variable interest rate of 3.86% as of August 31, 2022.[141]

Q. What is your recommendation?

A. I recommend that the Commission reflect the Company's most current projection of its cost of capital based on the recent actual financing activity. I show the changes in the capital structure and cost of debt from these updates in a recommended cost of capital table in a subsequent section below.

Q. What are the effects of your recommendations?

A. The effect of reflecting the Company's most current projection of its cost of capital components based on the actual recent financing is a reduction of $2,119 in the claimed base revenue requirement and base rate increase.

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[139] Water Service Kentucky's response to Staff 2-66. I have attached a copy of the narrative portion of this response as well as the summary cost of capital worksheet tab from the attachment Excel workbook as my Exhibit__(RAF-49).
[140] *Id.*
[141] *Id.*

B. Quantification of Mr. Baudino's Return on Equity

Q. What is the effect of Mr. Baudino's return on equity recommendation?

A. The effect of reducing the return on equity to 9.25% is a reduction of $59,992 in the Company's base revenue requirement and base rate increase. This amount is incremental to the reductions in the revenue requirement for my recommendations to slightly modify the capital structure and cost of debt and for the rate base changes I recommend above.

Q. Have you quantified the effects of a 10 basis point change in the return on common equity?

A. Yes. Each 10 basis point change in the return on equity equals $4,444 in the base revenue requirement and requested base rate increase.

C. AG and city of Clinton's Recommended Cost of Capital

Q. Can you provide a summary table showing the cost of capital components as originally filed by the Company, with the Company's update, and with Mr. Baudino's return on equity recommendation?

A. Yes. See the table below.

Water Service Corporation of Kentucky
Cost of Capital - As Filed, Updated, and with AG and City of Clinton Recommendations
KPSC Case No. 2022-00147
Forecasted Test Period: Twelve Months Ended December 31, 2023

Cost of Capital Per Filing

	Capital Amount	Capital Ratio	Component Costs	Weighted Avg Cost	Grossed Up Cost
Debt	$ 3,888,057	50.29%	4.71%	2.37%	2.47%
Equity	$ 3,842,646	49.71%	10.60%	5.27%	7.32%
Total Capital	$ 7,730,703	100.00%		7.64%	9.79%

Updated Cost of Capital by Company
As Computed by Company in Response to AG 2-66

	Capital Amount	Capital Ratio	Component Costs	Weighted Avg Cost	Grossed Up Cost
Debt	3,965,664	49.91%	4.58%	2.28%	2.38%
Equity	3,979,629	50.09%	10.60%	5.31%	7.38%
Total Capital	7,945,293	100.00%		7.59%	9.76%

AG and City of Clinton Recommended Cost of Capital

	Capital Amount	Capital Ratio	Component Costs	Weighted Avg Cost	Grossed Up Cost
Debt	3,965,664	49.91%	4.58%	2.28%	2.38%
Equity	3,979,629	50.09%	9.25%	4.63%	6.44%
Total Capital	7,945,293	100.00%		6.92%	8.82%

Q. Does this complete your testimony?

A. Yes.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF WATER	)	
SERVICE CORPORATION OF KENTUCKY FOR	)	
A GENERAL ADJUSTMENT IN EXISTING RATES	)	**CASE NO.**
AND A CERTIFICATE OF PUBLIC	)	**2022-00147**
CONVENIENCE AND NECESSITY TO DEPLOY	)	
ADVANCED METERING INFRASTRUCTURE	)	

EXHIBITS

OF

RANDY A. FUTRAL

ON BEHALF OF THE

OFFICE OF THE ATTORNEY GENERAL
OF THE COMMONWEALTH OF KENTUCKY
&
THE CITY OF CLINTON

J. Kennedy and Associates, Inc.
570 Colonial Park Drive, Suite 305
Roswell, GA 30075

October 13, 2022

PUBLIC REDACTED VERSION

EXHIBIT ____ (RAF-1)

RESUME OF RANDY A. FUTRAL – DIRECTOR OF CONSULTING

EDUCATION

Mississippi State University, BBS in Business Administration
Accounting

EXPERIENCE

J. Kennedy and Associates, Inc. **2003 - Present**
Director of Consulting

Responsible for utility revenue requirements analysis, affiliate transaction auditing and analysis, fuel adjustment clause auditing and research involving tax and public reporting matters. Clients served include the Georgia Public Service Commission Staff, the Louisiana Public Service Commission ("LPSC") Staff, the Florida Office of Public Counsel ("OPC"), the Office of the Attorney General of the Commonwealth of Kentucky ("AG"), the South Carolina Office of Regulatory Staff, the Houston Council for Health and Education, the Gulf Coast Coalition of Cities, the Alliance for Valley Healthcare, the Ohio Energy Group, Inc., the Kentucky Industrial Utility Customers, the Municipalities of Alda, Grand Island, Kearney and North Platte, Nebraska and the Wisconsin Industrial Energy Group, Inc.

Direct and Responsive Testimonies filed on behalf of Louisiana Public Service Commission or it's Staff:
LPSC Docket No. U-23327 Southwestern Electric Power Company, Revenue Requirement Review, October 2004.
LPSC Docket No. U-21453, U-20925, U-22092 Entergy Gulf States, Inc., Jurisdictional Separation Plan, March 2006.
LPSC Docket No. U-25116 Entergy Louisiana, Inc., 2002-2004 Audit of Fuel Adjustment Clause, April 2006.
LPSC Docket No. U-23327 Southwestern Electric Power Company, Revenue Requirement Review, July 2006.
LPSC Docket No. U-21453, U-20925, U-22092 Entergy Gulf States, Inc., Jurisdictional Separation Plan, August 2006.
FERC Docket No. ER07-682 Entergy Services, Inc., Company's Section 205 Changes to Rough Production Cost Equalization Computation, November 2007.
FERC Docket No. ER07-956 Entergy Services, Inc., Company's 2007 Filing to be in Compliance with FERC Opinions' 480and 480-A, March 2008.

FERC Docket No. ER08-51 Entergy Services, Inc., LPSC Section 206 Filing Related to Spindletop Regulatory Asset in Rough Production Cost Equalization Computation, November 2008.
FERC Docket No. ER08-1056 Entergy Services, Inc., Company's 2008 Filing to be in Compliance with FERC Opinions' 480and 480-A, January 2009.
LPSC Docket No. U-31066 Dixie Electric Membership Corporation, Company's Application to Implement a Storm Recovery Rate Rider, September 2009.
LPSC Docket No. U-30893 Dixie Electric Membership Corporation, Company's Application to Implement a Formula Rate Plan, September 2009.
FERC Docket No. EL09-61 (Phase I) Entergy Services, Inc., LPSC Complaint Regarding Single Operating Company Opportunity Sales, April 2010.
LPSC Docket No. U-31066 Dixie Electric Membership Corporation, Company's Application to Implement a Storm Recovery Rate Rider, May 2010.
FERC Docket No. EL10-55 Entergy Services, Inc.
LPSC Complaint Regarding Depreciation Rates, September 2010.
LPSC Docket No. U-23327, Subdocket E Southwestern Electric Power Company, 2003-2004 Fuel Audit, September 2010.
LPSC Docket No. U-23327, Subdocket F Southwestern Electric Power Company, 2009 Test Year Formula Rate Plan Filing, October 2010.
LPSC Docket No. U-23327, Subdocket C Southwestern Electric Power Company, 2007 Test Year Formula Rate Plan Filing, February 2011.
LPSC Docket No. U-23327, Subdocket D Southwestern Electric Power Company, 2008 Test Year Formula Rate Plan Filing, February 2011.
FERC Docket No. ER10-2001 Entergy Arkansas, Inc., Company's 2010 Filing to Request Approval of Changed Depreciation Rates, March 2011.
FERC Docket No. ER11-2161 Entergy Texas, Inc., Company's 2010 Filing to Request Approval of Changed Depreciation Rates, July 2011.
LPSC Docket No. U-31835 South Louisiana Electric Cooperative Association, Company's Application to Implement a Formula Rate Plan and Initial Revenue Adjustment, August 2011.
FERC Docket No. ER12-1384 Entergy Services, Inc., Company's Section 205 Fling Related to Little Gypsy 3 Cancellation Costs, September 2012.
LPSC Docket No. U-32315 Claiborne Electric Cooperative, Inc.'s Application to Implement a Formula Rate Plan and Initial Revenue Adjustment, September 2012.
FERC Docket No. ER10-1350 Entergy Services, Inc., Company's 2010 Filing to be in Compliance with FERC Opinions' 480 and 480-A, January 2014.
FERC Docket No. EL-01-88-015 Entergy Services, Inc., Company's 2005 Remand Filing to be in Compliance with FERC Opinions' 480 and 480-A, March 2016.
LPSC Docket No. U-33984 Claiborne Electric Cooperative, Inc., Formula Rate Plan Extension, October 2016.
FERC Docket No. EL09-61(Phase III) Entergy Services, Inc., LPSC Complaint Regarding Single Operating Company Opportunity Sales, November 2016.
LPSC Docket No. U-33323 Entergy Louisiana LLC, 2010-2013 Fuel Audit, July 2019.

LPSC Docket No. U-33324 Entergy Gulf States Louisiana LLC, 2010-2013 Fuel Audit, July 2019.
LPSC Docket No. U-35441 Southwestern Electric Power Company, Rate Case, July 2021 Direct, October 2021 Surrebuttal.

Direct Testimony filed on behalf of Florida Office of Public Counsel:
FPSC Docket Nos. 20200241-EI, 202100178-EI, and 202100179-EI Florida Power and Light Company and Gulf Power Company, Storm Cost Audit, May 2022 Direct.

Telscape International, Inc. **1997 - 2003**
Corporate Controller **1999 - 2003**
Assistant Controller **1997 - 1999**

Complete responsibility and accountability for the accounting and financial functions of a $160 million newly public company providing telecommunication and high-end internet access services. Telscape served as a telephony carrier of services domestically and to Latin and Central America targeting other service carriers as well as individuals. Reported directly to CFO and managed a staff of eleven.

- Managed the day to day processes required to produce timely and accurate financial statements, including general ledger, account reconciliations, AP, AR, fixed assets, payroll, treasury, tax, internal and external reporting.
- Worked with attorneys and auditors on mergers and acquisitions including due diligence, audits, tax and integrating the accounting functions of eleven acquisitions.
- Grew the accounting department from four to eleven employees while developing and implementing company policies and procedures.
- Instituted capital investment policy and accounts payable management for twenty-one separate entities and twenty-four bank accounts to facilitate effective use of cash flow.
- Created capital and operating budgeting and variance analysis package for five separate business lines.
- Developed the consolidations and inter-company billings process across all entities including six in Latin and Central America.

- Worked with CFO to develop financial models and business plans in raising over $240 million over a three-year period through private preferred placements, debenture offerings and asset based credit facilities.

- Responsible for relationship management with external auditors, attorneys, and the banking community while reviewing and approving all SEC filings, including quarterly and annual reports, proxies and informational filings.

- Developed line cost accounting for revenues and carrier invoices saving thousands monthly and providing the justification for invoice reductions.

Comcast Communications, Inc.	**1988 - 1997**
Regional Controller	**1993 - 1997**
Regional Assistant Controller	**1991 - 1992**
Regional Senior Financial Analyst	**1988 - 1991**

Complete responsibility and accountability for the accounting functions of a $2.1 billion regional division of the world's third largest cable television provider serving approximately 490,000 subscribers. Reported to the Regional VP of Finance and managed a staff of twelve.

- Managed the day to day processes required to produce timely and accurate financial statements, including general ledger, account reconciliations, AP, AR, fixed assets and internal reporting.

- Controlled extensive budgeting, forecasting, and variance reporting for eighteen separate entities covering eight states, training employees and management throughout the region.

- Performed due diligence related to the acquisition of seven cable system entities and coordinated the integration of all accounting functions with the corporate office.

- Instituted all FCC informational and rate increase filings throughout the region based on the Cable Act of 1992.

- Responsible for the coordination of all subscriber reporting, sales and property tax filings, franchise fee and copyright filings.

- Grew the accounting department from seven to thirteen before its move to Atlanta, restaffing ninety percent of the department after the move.

- Directed all efforts throughout the region to implement Oracle as the new financial package and a new Access database for the budgeting and forecasting processes.

Storer Cable Communications, Inc **1987 - 1988**
Senior Accountant for Operations

Responsibility for the accounting, budgeting, and forecasting activities of this 82,000 subscriber area for this cable television concern that was acquired by Comcast listed above. Reported to the Area VP and General Manager and managed three employees.

- Implemented new Lotus based model for budgeting and forecasting, training all management on its use.
- Transitioned financial statement preparation from the regional office level to this area office.
- Managed the day to day processes required to produce timely and accurate financial statements for six separate entities including general ledger, AP, AR, fixed assets, subscriber reporting and other internal reporting.
- Developed and maintained tracking mechanism to track progress of cable plant rebuild and the associated competitor overbuild in the area's largest cable system.

Tracey-Luckey Pecan & Storage, Inc. **1986 - 1987**
Senior Accountant

Responsibility for the accounting, budgeting, and office management for a divisional office of this pecan production, processing, and storage entity annually grossing approximately $22 million. Financial statements were produced for three entities. Reported directly to the president of the division and managed three employees.

Tarpley & Underwood, CPA's **1984 - 1986**
Staff Accountant

Responsibility for the completion of monthly and quarterly client write-up for twenty-three small businesses for this regional CPA firm that is now one of the top twenty-five firms in Atlanta. Performed all payroll tax, sales tax, property tax, and income tax filings for these and other clients as well as approximately eighty individual returns per year. Reported directly to both partners with dotted line responsibility to all managers.

EXHIBIT ____ (RAF-2)

AG DR 2-67:

Refer to the August 29, 2022 merger announcement between Southwest Water Company and Corix Infrastructure, Inc. with a projected close date by the end of 2023. Describe all changes anticipated to the level of allocated or direct costs applicable to Water Service Kentucky that should be considered as part of the instant case. If there are no changes anticipated explain why in full detail.

Response: Based on the various conditions that all must be met in order to close the transaction – including approximately 21 regulatory approvals across 18 regulatory jurisdictions - the Company does not expect the transaction to close before 12/31/2023. For example, the California Public Utilities Commission has a 12-18 month statutory period for merger approvals. Any integration activities would not be implemented until the transaction closes. The Forecast Period of the current case extends to 12/31/2023, and therefore, there are no expected allocated or direct costs for WSCK that are expected to be impacted for the current case.

Witness: Seth Whitney

EXHIBIT ____ (RAF-3)

AG DR 1-102:

Refer to the Application, Exhibit 41, which shows the annual revenue requirements for the AMI program utilizing December 31 balances for each year 2023 through 2027.

a. In similar format for one year, provide the revenue requirement for the AMI project for the test year based on the 13-month average rate base costs and related expense accounts included in the Company's filing. Provide in electronic format with all formulas intact.

b. Indicate the depreciation rate used to project depreciation expense for the AMI project investment and describe how it was determined. If there was a calculation of the rate, provide in electronic format with all formulas in place.

Response:

a. Please see attached Excel file AG DR 1-102 Exhibit 41 - AMI cost impacts REDACTED - Forecast Period.xlsx.

b. The Company used the currently authorized depreciation rate for the Meters asset account of 2.25%.

Witness: James Kilbane

Water Service Corporation of Kentucky
Docket No. 2022-00147
Forecast Period Impacts of AMI Program

AG DR 1-102

Line No.	Description	13 Mo Avg 2023
	Phase 1:	
1	Utility Plant In-Service	$ 246,503
2	Accumulated Depreciation	(2,157)
3	Accumulated Deferred Income Taxes	(90)
4		
5	Rate Base	244,257
6		
7	Gross Revenue Factor	9.5086%
8		
9	**Revenue Requirement on Rate Base**	**23,225**
10		
11	Operating Expense	7,975
12	Depreciation Expense	11,093
13		
14		
15	Total Operating Expense	19,068
16		
17	PSC Assessment Factor	0.9980
18		
19	**Revenue Requirement on Expense**	**19,106**
20		
21	**Gross Revenue Requirement (Line 9 + Line 19)**	**42,331**
22		
23	Service Revenue Conversion Factor	0.9591
24		
25	**Service Revenue Requirement**	**$ 44,135**
26		

EXHIBIT ____ (RAF-4)

PSC DR 2-19:

Refer to the Wilson Testimony, pages 9–13 regarding the proposed automated meter infrastructure (AMI) project.

a. Provide the cost/benefit analysis employed in the analysis of the proposed AMI project.

b. Itemize all cost savings Water Service Kentucky expects to incur as a result of the proposed AMI implementation.

c. Refer to page 10. Explain how understanding community usage patterns benefits Water Service Kentucky and quantify any savings that could result from this understanding.

d. Refer to page 10. Regarding the meter reads,

(1) Provide the number of mis-read meters annual for the last 5 years

(2) Provide the number of re-readings for the last 5 years.

e. Provide the RFP and bids associated with the proposed AMI project.

f. Refer to page 12. Provide the tasks that current meter readers will be reassigned to do.

g. Explain whether a customer can opt out of an AMI meter.

(1) If a customer can opt out, explain whether an opt out fee will be assessed.

(2) If an opt out fee is to be assessed, provide this fee and supporting documentation.

h. Provide the depreciable life Water Service Kentucky intends to apply to the AMI meters. Provide documentation to support Water Service Kentucky's estimated depreciation life.

i. Provide the depreciable life and balance of the current meters.

Response:

a. Please see attached file PSC DR 2-19a.

b. Please see attached file PSC DR 2-19a, and the response to part C below. While the cost-benefit analysis identified potential savings, due to the phase-in process of the AMI rollout and widely varying impacts that may accrue for each customer, the Company has not yet quantified cost savings.

c. Considerable savings for customers can occur by noticing leaks around the home sooner and by implementing repairs in a more efficient manner. WSCK may see savings due to reduced pumping cost, chemical cost, and fewer truck rolls to investigate and locate customer leaks. These savings for the Company are not readily quantifiable but would accrue and accumulate during and after phased-in implementation.

d. Please refer to the chart below to answer parts 1 and 2.

YEAR	TYPE	COUNT
2016	MISS_READ	5,462
2016	REREAD	563
2017	MISS_READ	6,996
2017	REREAD	763
2018	MISS_READ	8,351
2018	REREAD	692
2019	MISS_READ	3,502
2019	REREAD	704
2020	MISS_READ	5,195
2020	REREAD	546
2021	MISS_READ	7,316
2021	REREAD	1,405

e. Through Corix, WSCK is finalizing a master agreement with Neptune which includes preferred pricing. See the following attached files for the RFP and vendor bids for the master agreement.

(1) PSC DR 2-19e RFP - Metering Reading Solution.pdf

(2) PSC DR 2-19e Bid Response #1 CONFIDENTIAL

(3) PSC DR 2-19e Bid Response #2 CONFIDENTIAL

(4) PSC DR 2-19e Bid Response #3 CONFIDENTIAL

f. Employees will be able to provide improved customer service when completing service orders, as well as support more intensive maintenance routines. For example, WSCK will be able to incorporate a more intensive leak detection system, as well as facilitate more detailed asset management and system mapping improvements. WSCK will also be able to task individuals with an intensive lead and copper control and elimination process.

g. The Company is not contemplating a customer opt-out provision at this time.

h. The Company's currently approved Meter asset depreciation rate is 2.25%, or 44.44 years.

i. The Company's Meter assets have net balance (UPIS less A/D and net CIAC) of $251,420 as of 6/30/2022.

Witness: Colby Wilson/James Kilbane

EXHIBIT ____ (RAF-5)

AG DR 1-57:

In the event the Commission grants the CPCN, explain what Water Service Kentucky will do with its current meter reading personnel. Provide also the monetary savings in meter reading expense Water Service Kentucky expects to achieve through the deployment of the AMI metering infrastructure, and explain whether any of those savings will be related in any manner to the current meter reading personnel. Finally, detail any projected meter reading expense savings included in the Company's filing.

Response: WSCK employs field techs who performs various maintenance jobs throughout the system and work all customer-generated work orders. WSCK does not employ specific meter readers. If granted, the CPCN would allow filed techs to spend more time on direct customer issues. Ultimately, this would likely result in savings over time through reduced unaccounted for water, fewer truck rolls for meter reads and re-reads, reduced pumping costs, and reduced chemical costs.

Witness: Colby Wilson

EXHIBIT ____ (RAF-6)

AG DR 1-7:

Refer to the Application generally. Explain whether any vacant position costs are included in the proposed revenue requirement. If so, provide the job title, salary/wage, necessity of the position, date the job was created and vacated, explanation as to why the position is currently vacant, and an estimated date as to when the position will be filled.

Response: As of May 31, 2022, Salaries Expense included two open positions. The first position is the Director of Engineering and Asset Management, salary $133,750, which is necessary to oversee capital projects. The position was created in 2017 under a different title and has been open since November 2021, the position is currently posted and available. The other position is a Kentucky Operations Apprentice, entry-level position. The position was created in 2018 and has been open since May 2021 when its former occupant was promoted to Water-Wastewater Operator I. The elevation of the prior Operations Apprentice to Operator demonstrates the benefit of having the apprentice position to draw new talent to the industry. Estimated date when position to be filled, the position is currently posted and available. Both positions are expected to be filled by September 30, 2022.

Witness: James Kilbane

EXHIBIT ____ (RAF-7)

AG DR 1-113:

Refer to the monthly variance reports provided as Exhibit 22. A number of the monthly variance reports show that salaries were lower than budget due to two open positions. Describe the positions that were open, the location of each, how long the positions were open, and whether the positions have now been filled.

Response: The Field Tech 1 position in Middlesboro has been filled. The position was open for approximately 12 months. The Student Operations Apprentice position in Kentucky remains open for applications. The position has been open for approximately 14 months. This position was reposted 4 months ago, prior to the end of the school year.

Witness: Colby Wilson

EXHIBIT ____ (RAF-8)

AG DR 2-13:

Refer to Water Service Kentucky's response to the Attorney General's First Request, Item 15(b). Water Service Kentucky states that when the 2021 annual report was filed, one position was vacant.

a. Explain which position was vacant.

b. Explain whether the prior vacant position has been filled, and if so, provide the date that the position was filled.

c. Explain whether Water Service Kentucky is asserting that there are 13 full-time employees working in Kentucky now. If not, explain why not.

Response:

a. The apprentice position was vacant.

b. The position has been filled as of September 17, 2022. Please see attached file.

c. Yes, there are 13 full-time employees working in Kentucky as of September 20, 2022.

Witness:

James Kilbane

EXHIBIT ____ (RAF-9)

AG DR 2-1:

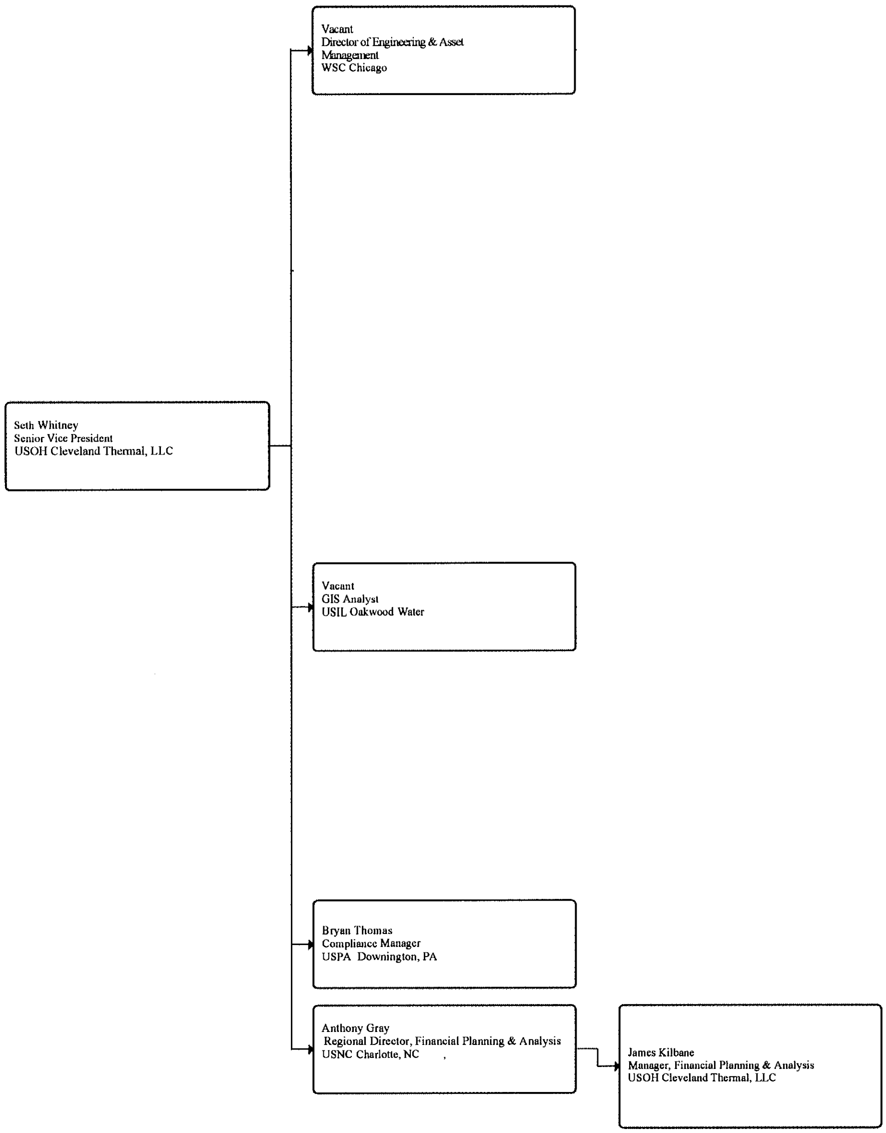
Refer to Water Service Kentucky's response to the Attorney General's First Request for Information ("Attorney General's First Request"), Item 1(a). Due to the recent personnel changes, provide an updated organizational chart of Water Service Kentucky, and designate whether each position is based in Kentucky or elsewhere.

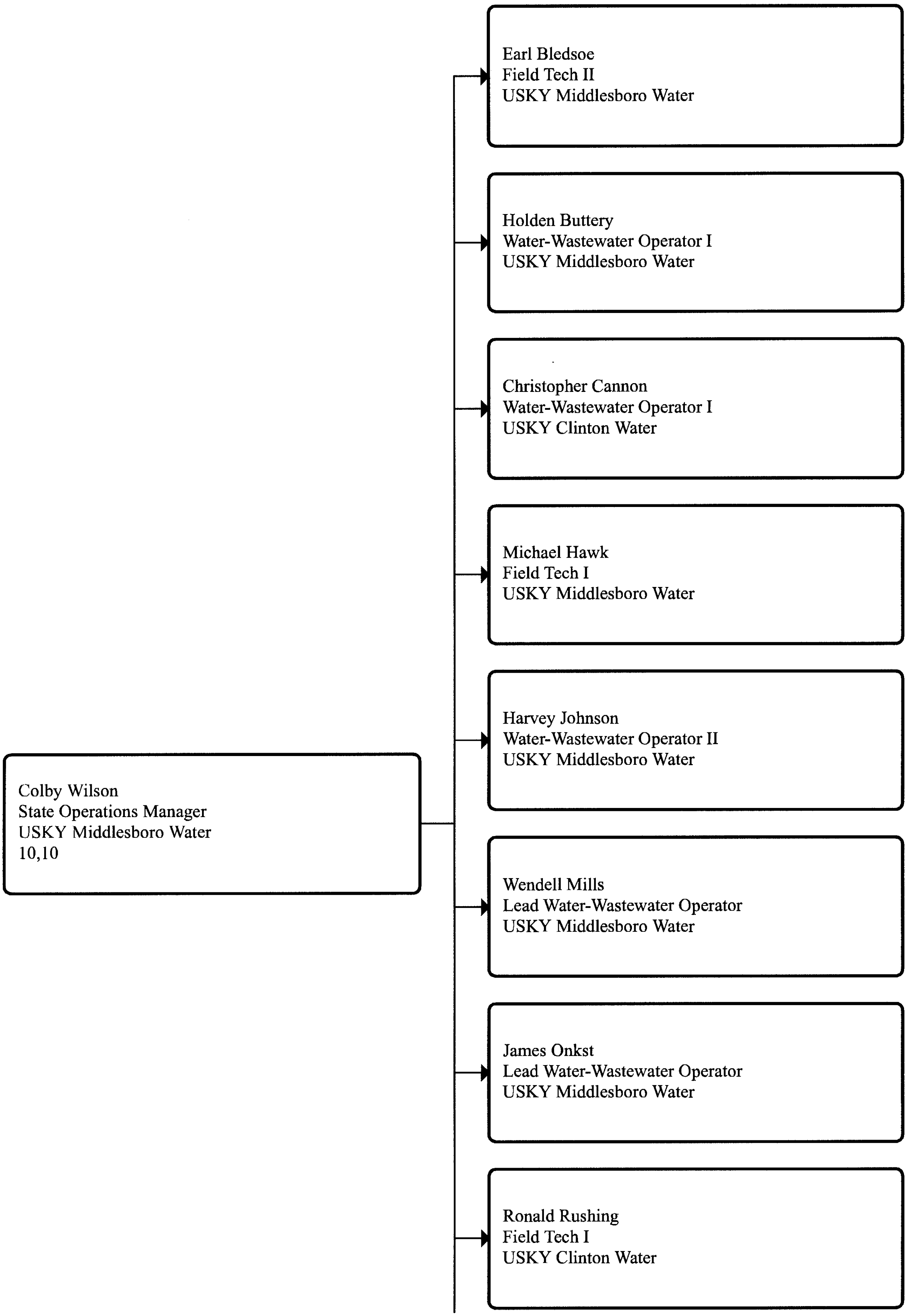
Response:

Please see attached file. The positions under Colby Wilson and including Colby Wilson are based within the state of Kentucky, and all other positions are currently based elsewhere.

Witness:

James Kilbane


Vacant
Director of Engineering & Asset Management
WSC Chicago
Seth Whitney
Senior Vice President
USOH Cleveland Thermal, LLC
Vacant
GIS Analyst
USIL Oakwood Water
Bryan Thomas
Compliance Manager
USPA Downington, PA
Anthony Gray
Regional Director, Financial Planning & Analysis
USNC Charlotte, NC
James Kilbane
Manager, Financial Planning & Analysis
USOH Cleveland Thermal, LLC


Earl Bledsoe
Field Tech II
USKY Middlesboro Water
Holden Buttery
Water-Wastewater Operator I
USKY Middlesboro Water
Christopher Cannon
Water-Wastewater Operator I
USKY Clinton Water
Michael Hawk
Field Tech I
USKY Middlesboro Water
Harvey Johnson
Water-Wastewater Operator II
USKY Middlesboro Water
Colby Wilson
State Operations Manager
USKY Middlesboro Water
10,10
Wendell Mills
Lead Water-Wastewater Operator
USKY Middlesboro Water
James Onkst
Lead Water-Wastewater Operator
USKY Middlesboro Water
Ronald Rushing
Field Tech I
USKY Clinton Water

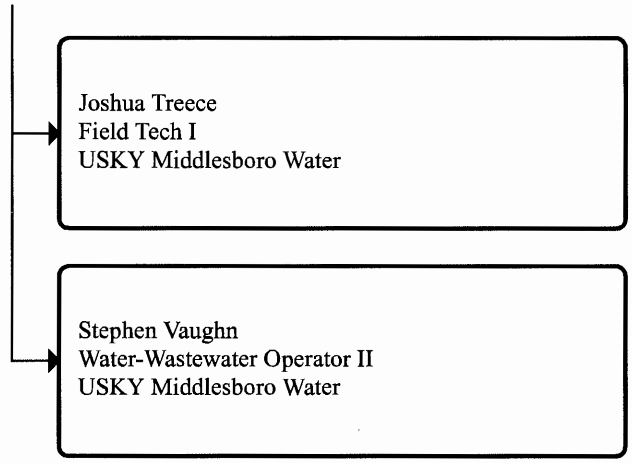

Joshua Treece
Field Tech I
USKY Middlesboro Water
Stephen Vaughn
Water-Wastewater Operator II
USKY Middlesboro Water

EXHIBIT ____ (RAF-10)

PSC DR 3-6:

Refer to Water Service Kentucky's response to Staff's Second Request, Item 19a, the 2022 AMR/AMI Cost-Benefit Analysis.

a. Provide copies of the workpapers used by Water Service Kentucky used to develop its Cost-Benefit Analysis in an Excel spreadsheet format with all formulas, columns, and rows unprotected and fully accessible.

b. On page 3 of the Cost-Benefit Analysis is the statement that Water Service Kentucky based its Net Present Values on a 20-year term life, and a two percent inflation rate.

i. Given that the inflation rate for calendar year 2021 was 7 percent and the inflation rate for the 12 months ended July 31, 2022, was 8.5 percent, explain why Water Service Kentucky's proposed two percent inflation rate is appropriate.

ii. Provide the Net Present Value discount rate used by Water Service Kentucky and provide a detailed explanation of how the discount rate was selected.

iii. Explain why it would not be appropriate to use either Water Service Kentucky's requested weighted average cost of capital or projected cost of debt.

c. Refer to Exhibit H, Labor Savings. The analysis states that staff will transition from meter reading to other work activities such as collections, field maintenance, and data analysis. Explain who performs these activities currently and if those positions will be eliminated.

d. Refer to Exhibit I, Carbon Footprint Reduction. Provide support for the gallons used, the annual cost reduction of $4,416, the annual reduction in vehicle maintenance and annual reduction in vehicle replacement.

e. Refer to Exhibit J, Revenue Gained form Meter Accuracy. Provide support that the current meters are inaccurate to the point that 3 percent of annual revenue is lost.

Response:

Please see responses on PDF file PSC DR 3-06 Response from Vaughn & Melton and pdf file PSC DR 3-06 Revised report.

Witness: Vaughn and Melton Engineering

2022 AMR/AMI COST-BENEFIT ANALYSIS

FOR THE
WATER SERVICE CORPORATION OF KENTUCKY

AUGUST 2022
REVISED

STATE OF KENTUCKY
MARIOS S.
GEORGIOU
21049
LICENSED
PROFESSIONAL ENGINEER

8/30/22

- Prepared By -

VAUGHN & MELTON CONSULTING ENGINEERS, INC.
109 S. 24th Street
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Phone 606-248-6600
www.vaughnmelton.com

V&M Project No. 012254-00

This study is being conducted to evaluate the automatic meter reading/advanced meter infrastructure (AMR/AMI) technology for the areas of Middlesboro and Clinton in Eastern Kentucky by Water Service Corporation of Kentucky. The study begins by providing a basic explanation of the available technologies and concludes with a realistic cost-benefit analysis scenario.

Section 1- Technology Update:

1. **Conventional Meter Reading**

Description:

A meter reader walks to the location of a water meter and reads/records the totalized reading from the flowmeter display. The information is recorded in a notebook or computer and then taken back to the central office for recording, analysis, and billing purposes. The frequency of manual reads may be monthly, bi-monthly, or quarterly.

Main Suppliers: Neptune, Sensus, Badger, Mueller, others.

Advantages:

Basic water meter service that works in all environmental settings.

Proven technology.

Minimum number of equipment to install and maintain.

Lowest installation cost.

Typical Setup:

A water meter with a flowmeter display is placed inside a meter box or building at each residence/establishment.

2. **Automatic Meter Reading (AMR)**

Description:

It is the communication technology used by water utilities to automatically collect water consumption information and data from a water meter endpoint near the water meter installation. An external data receiver device (via walking or driving) is needed to receive and transfer the data to a central database for billing, troubleshooting, and analyzing purposes.

Information/data can be collected via Touch technology (wand/probe and handheld computer) or Radio Frequency technology (radio, handheld/walk-by, mobile/drive-by)

Main Suppliers: Sensus, Neptune, Badger, others.

Advantages:

No need to manually read the flowmeter display.

Billing is prepared using calculated values instead of estimates.

More efficient and accurate collection of data.

Reduced unknow personnel trespassing on someone's property.

Lowers meter reading costs to the provider.

Technology can be easily upgraded to include more advanced features and network services such as the AMI service option described below.

Typical Setup:

A water meter with a flowmeter display is placed inside a meter box at each residence/establishment. An encoder register translates water usage info into electronic data and places the information on an endpoint for transfer of data. A meter reader must walk or drive by to collect the system information. The data is then manually taken to a central database for processing.

3. Advanced Meter Infrastructure (AMI)

Description:

AMI systems are an advancement of the AMR technology. It is an integrated system of water meters, communication networks and data management systems that enables two-way communications between water meter endpoints and utilities. This technology uses "smart meters" to remotely collect data based on a customizable program logic. The metering devices here can be controlled remotely to capture, store, and transmit information to the main computer. AMI systems/services can be operated/provided by the Water Utility company or via a third-party provider.

Information/data is sent to utilities via a fixed network: AMR hosting (internet/web-based service using data acquisition software), radio frequency technology, satellite transmitters, Wi-Fi, and powerline communications.

Main Suppliers: Neptune AMI Services, Sensus AMI Services, Mueller AMI Services, others.

Advantages:

Better customer service.

Daily status information from each meter. No need for manual reads.

Customers can monitor their water consumption and/or set automatic notifications.

Instantaneous reading/billing when property is sold or tenant moves out.

More information available to answer customer/billing questions.

Reduction in field service calls and avoid adding staff when customer base is increased.

Saves utility the expense/labor of periodic/multiple trips to each physical location to read the meter.

Expedited dispute resolution from claims such as leaks, theft, on inaccuracies in reporting.

Saves vehicles expenses.

Billing is prepared on real time information instead of estimates or calculated values.

More efficient and accurate collection and transfer of data.

Improved billing practices.

Flexible billing and schedule cycles.

Environmentally sensitive since it reduces water consumption and prevents water abuse/leaks.

Primary tool in future growth.

Increased efficiency and potential profit for providers.

Counteracts the inaccuracies of aging technology.

Reduced reliance on personnel.

Always accessible record keeping.

Accurate/instantaneous data analysis provides informed forecasting and decision making.

Typical Setup:

A water meter with a flowmeter display and encoder register is placed inside the meter box or building. A remote transmitter is placed inside or outside the meter box at each residence/establishment to collect and transfer information on demand or on a preset schedule.

Section 2- Cost-Benefit Analysis for the AMR/AMI installation project:

The cost-benefit analysis is prepared by estimating the various capital and operating costs associated with such a project. In a similar manner, the various cost benefits are also estimated and ultimately compared to the project costs. Assessment figures were based on available information provided by the Water Service Corporation of Kentucky and based on some noted assumptions for planning purposes.

The list of the project costs is summarized in Table 1 and described below.

Net Present Values are calculated based on a 20 year term life, average inflation rate of 5%, and an average 2% discount rate.

The proposed project involves the complete replacement of approximately 6,467 water meters in the referenced areas.

Table 1. Summary of Estimated Lifecycle Costs for Project.

Cost Category	Net Present Value	Cost
Capital Project Cost	$ 2,134,110	$ 2,134,110
Project Management Fee	$ 64,023	$ 64,023
System Integration	$ 21,341	$ 21,341
Salvage Value	$ (21,000)	$ (21,000)
Meter and MIU Maintenance	$ 107,929	$ 160,370
Integration Post-Production Support	$ 118,722	$ 176,407
Monthly Billing Operation Cost	$ 118,722	$ 176,407
20-Year Lifecycle Cost	$ 2,543,847	$ 2,711,658

Capital Project Cost For the AMR/AMI Project: This is the total cost for the new meters, meter interface units (MIU), installation fees, network configuration, software, customer web portal, data hosting, and 10% contingency. Refer to Appendix A, Exhibit A.

Project Management: This is a project management contract cost for the firm overseeing the AMI installation/implementation. Refer to Appendix A, Exhibit B.

System Integration: This is the IT cost to integrate the AMI system to the existing IT water system. Refer to Appendix A, Exhibit C.

Salvage Value: This is the estimated credit the Utility will receive from the Contractor for the salvage value of the meters being replaced. Refer to Appendix A, Table A-1.

Meter and MIU Maintenance Costs: These are the annual meter and MIU maintenance costs once the system is installed. This cost typically includes battery replacements and miscellaneous units that will fail year to year. Refer to Appendix A, Exhibit D.

Integration Post-Production Support: Annual operating cost to support the system integration between AMI and the current Utility water system. Refer to Appendix A, Exhibit E.

Monthly Billing Operating Cost: This is the increase in operating costs for the bill production, postage, and related costs. Refer to Appendix A, Exhibit F.

The list of the benefit costs is summarized in Table 2, and described below:

Table 2. Summary of Estimated Benefits for Project.

Benefit Cost	Net Present Value	Cost
Savings from Meter Turnover	$ 1,305,687	$ 1,940,100
Labor Savings	$ 270,245	$ 401,553
Carbon Footprint Savings	$ 323,119	$ 480,118
Revenue Gain from Meter Accuracy	$ 2,174,158	$ 3,230,548
Total Benefits	$ 4,073,209	$ 6,052,319

Savings of Normal Meter Turnover: Savings from normal meter turnover/replacement the Utility is already performing by staff. Refer to Appendix B, Exhibit G.

Labor Savings: Labor savings from the staff having to work less on tasks related to conventional meter reading. It is expected that all the meter reading positions will likely be eliminated. The existing staff will be re-assigned to new meter mechanic positions and/or data analysis. Refer to Appendix B, Exhibit H.

Carbon Footprint Reduction: Cost savings from the reduction in truck rolls associated with meter reading activities and an estimated 22,080 fewer miles driven per year. Refer to Appendix B, Exhibit I.

Revenue Gain from Meter Accuracy: Improved registers and meters can increase meter accuracy when comparted to aged technology and under-registered meters. A 3% accuracy improvement will be considered here. Refer to Appendix B, Exhibit J.

The payback period for this investment is 11 years. Refer to Appendix B, Exhibit K.

Table 3. Summary of AMR/AMI Project Economics

Present Value Cost	$2,543,847
Present Value Benefit	$4,073,209
Net Present Value	$4,073,209-2,543,847= 1,529,362
Payback Period	11 years
Benefit/Cost Ratio	1.60

Section 3- Intangible Benefits

There are also several unquantified, intangible benefits that justify the AMR/AMI project. These benefits provide a positive outcome for which an economic value (in dollars) cannot be easily estimated. These benefits cover good public relations, resource conservation, regulatory compliance, business improvement, and resource protection.

Improved Customer Service:

Customers will have access to more information concerning their water usage.

Timely Leak Detection:

With the ability to detect large leaks in a timelier manner, field personnel can be dispatched to investigate and shut off water service to mitigate water loss and property damage.

Monthly Billing:

Monthly billing is normally utilized to provide more timely information to customers. Online billing payment may also be considered/utilized.

Claims Resolution and Billing Disputes:

Availability of water usage data on a more frequent basis will assist in the resolution of claims with the customer's property. Having time-stamped usage data will allow cross referencing with events in the water system. In addition, leak adjustments can be validated better using archived water usage data from the AMR/AMI meters.

Personnel Safety:

Minimizing driving reduces accidents and exposure to inherent dangers of working in narrow roads as meter readers get in and out of their vehicles, particularly during inclement weather. It also reduces their exposure to poison plants, insect stings and reptiles. A reduction in workers' compensation claims is also expected. As a result, the Utility's insurance premiums will be favorably affected.

Environmental Impact and Greenhouse Gas Reduction:

The Utility can potentially reduce its carbon footprint by decreasing use of fossil fuel. The AMR/AMI project is expected to lead to improved water conservation, which in turn reduces the energy used to pump water to customers.

Section 4- Conclusions

The benefits of the AMR/AMI project were found to significantly outweigh the cost due to:

- **Net Present Value Benefit-** The estimated net present value benefit is $1,529,362 over the 20-year period.
- **Addressing obsolete infrastructure and Aging Systems**- Many meters across the system are at or beyond their useful life, with consumption going unmetered due to the decreased accuracy of the older meters.
- **Operational Efficiency Gains-** With the AMR/AMI project, approximately 90% of the current truck rolls related to meter reads will no longer be needed, saving significant labor, while improving customer service and billing. Such efficiency will be possible by redeploying water meter reading services to other utility operations.
- **Payback Period**- Based on this analysis, the project will pay for itself in approximately 11 years, well ahead of the system's lifecycle estimate of 20 years.

APPENDIX A

Exhibit A:

Capital Project Cost Calculations

Average 5/8" AMR/AMI Cost per Meter = $ 300 per unit

Number of Customers = 6,467

Estimated Project Cost = $300 /unit x 6,467 customers =	$ 1,940,100
Contingency @10% to allow for larger size water meters in the system	$ 194,010
Estimated Total Cost=	**$ 2,134,110**
NPV of Project Cost =	**$ 2,134,110**

Exhibit B:

Project Management Contract Cost:

Project Management Cost will be assumed at the rate of 3%

Estimated Project Cost = $2,134,110

Estimated Project Management Cost = $ 2,134,110 x 0.03 = $ 64,023

NPV of Project Management Cost = $ 64,023

Exhibit C:

System Integration Cost:

System Integration Cost will be assumed at the rate of 1%

Estimated Project Cost = $2,134,110

Estimated Project Management Cost = $ 2,134,110 x 0.01 =	**$ 21,341**
NPV of System Integration Cost =	**$ 21,341**

Table A-1
Cost-Benefit Analysis.
Salvage of Old Meters
Date: 5/12/ 2022

Meter Size	Type	Count	Weight per Meter (lbs.)	Salvage Value @$1 per pound
5/8"	Displacement	6300	3	$ 18,900.00
3/4"	Displacement	90	3	$ 270.00
1"	Displacement	40	5	$ 200.00
1.5"	Displacement	7	10	$ 70.00
2"	Displacement	11	15	$ 165.00
3"	Compound	6	31	$ 186.00
4"	Compound	3	40	$ 120.00
6"	Compound	6	77	$ 462.00
8"	Compound	4	65	$ 260.00
10"	Compound		210	0
Total		6467		$ 20,633.00
Total NPV Cost				

Notes:
The existing bronze water meters typically have a salvage value for recycling meters which keeps them out of the waste stream and is normally provided as credit by the Contractor. The salvage value is carried on the cost side side as a negative cost.

Exhibit D:

Meter and MIU Maintenance Cost:

MIU Maintenance Cost = $0. No battery replacement needed.

Meter Maintenance Cost = $ 0. Assume this cost will remain the same for conventional or AMR type meters.

Assume 0.25% failure of meter, wiring and MIUs per year. Therefore, Additional Maintenance Cost = 0.0025 x 6,467 x $300/unit replacement = $ 4,850

20 year lifecycle Meter and MIU Maintenance Cost = $4,850 @ 5% inflations for 20 years =

= 4,850 (33.066) =		**$ 160,370**
NPV of Meter and MIU Maintenance Cost =	**160,370 (0.673)=**	**$107,929**

Exhibit E:

Integration Post-Production Support Cost:

The post-production fee to address changes in the AMI system configuration will be calculated based on a 0.25% of the capital cost per year. Such fees include but not limited to component upgrades, system patch, configuration changes, etc. Therefore the Integration/Support Cost = 0.0025 x 2,134,110 = $5,335 per year.

20 Year Lifecycle Integration Post-Production Cost = $ 5,335, at 5% inflation rate for 20 years =

$5,335 (33.066) =		**$ 176,407**
NPV of Integration Post-Production Support Cost =	**$176,407 (0.6730) =**	**$ 118,722**

Exhibit F:

Monthly Billing Operating Cost:

The monthly billing preparation cost will likely remain as is during the AMI implementation project. A 0.25% cost increase per year will be assumed due to the electronic payment processing services.

Bill printing and Postage will remain the same.

Bill Production will remain the same.

Therefore, estimated billing operating cost = 0.0025 x $2,134,110 = $ 5,335/year

20 Year Lifecycle Monthly Billing Operating Cost = $ 5,335 per year at 5% inflation rate for 20 years =

$ 5,335 (33.066) = **$176,407**

NPV of Monthly Billing Operating Cost = $176,405 (0.6730) =** **$ 118,722

APPENDIX B

Exhibit G:

Savings from normal meter turnover:

The savings will come from the deferred cost of the on-going meter replacement program, which will be superseded by the AMI replacement program. The replacement program targets 10% units every year.

Number of replacements in 20 years = 2

Assume Conventional Water Meter replacement at $100.

Assume Unit Installation Labor at $70.

Therefore total cost for meter replacement = $100 + $70 = $ 170/unit.

Annual Replacements Cost = $170/unit x 6,467 x 0.1 = $109, 939

Therefore, 20 year lifecycle replacement cost = 6,467 water meters x $170 per meter replacement x 2

= $ 1,940,100

NPV of Savings from Normal Meter Turnover Cost = $1,940,100(0.6730)= $ 1,305,687

Exhibit H:

Labor Savings:

The two current meter reading positions will remain during the AMI implementation. The staff will transition from meter reading to other work activities such as collections, field maintenance, and data analysis.

Savings will be derived from reduction in travel costs.

Annual Reduction in Water Meter Readings= 12 months x 23 days/month x 40 miles/day x $0.55/mile x 2 staff = $12,144

20 Year Lifecycle Labor Savings Cost = $ 12,144 at 5 % inflation rate for 20 years =

=12,144(33.O66)= **$401,553**

NPV of Labor Savings Cost = $401,553 (0.6730)=** **$ 270,245

Exhibit I:

Carbon Footprint Reduction:

Assume both trucks will be eliminated from the meter reading department.

Estimated reduction in gallons of fuel from 2 vehicles = 1,104 gallons

Annual Cost Reduction = 1,104 gallons x$4/gallon = $4,416

Annual Reduction in Vehicle Maintenance from 2 Vehicles (routine service, oil change, tires)= $4,000

Annual Reduction in vehicle replacement from 2 vehicles (assume 2 cars will be replaced in 20 Years=

= 2 cars x $50,000 per car =$100,000 per year/20 years = $5,000

Expected annual savings benefit = $ 14,520

Total 20-year lifecycle Benefit= 20 years at 5% inflation x $14,520 =

=$14,520 (33.066)= $ 480,118

NPV of Carbon Footprint Reduction Cost = $480,118 (0.6730) $323,119

Exhibit J:

Revenue Gain From Meter Accuracy:

Assume a conservative 3% gained revenue from improved accuracy.

Consumption based revenue FY 2022= $3,323,343

Expected annual revenue gain = $ 3,323,343 x 0.03 = $ 97,700

Total 20-year lifecycle Benefit= 20 years at 5% inflation rate x $ 97,700=

= 97,700 (33.066) = $ 3,230,548

NPV of Revenue Gained from Meter Accuracy = $3,230,548 (0.6730)= $2,174,158

Exhibit K:

Estimate Payback Period:

Payback Period = Project Cost/Annual Revenue

Estimated Annual Revenue from Savings/Benefits=

Savings from Meter Turnover	= $109,939
Labor Savings	= $12,144
Carbon Footprint	= $ 14,520
Revenue Gained from Meter Accuracy	= $97,700
Total Annual Savings/Revenue	= $234,303

Payback Period = $2,543,847/$234,303 = 10.86 years

EXHIBIT ____ (RAF-11)

Case No. 2022-00147
Water Service Corporation of Kentucky
Responses to Attorney General First Request for Information

AG DR 1-32:

Refer to the Kilbane Testimony, page 21, in which Mr. Kilbane states that "[w]ith regard to pro-forma depreciation expense on computer assets in this proceeding: Petitioner is seeking approval to reestablish computer asset net book values using the Commission's recommended deprecation rates for this class of asset." Explain this request in detail. In the response, ensure to discuss whether Mr. Kilbane is referring to Project Phoenix computer assets, in which the Commission has repeatedly denied recovery in the past, or any computers that the Commission previously ruled were already fully depreciated.

Response: In the process of calculating the restatement of net plant and depreciation amounts for certain assets, the Company inadvertently included the Project Phoenix costs that the Commission has previously denied. Please see below the calculated revenue requirement components.

	Base Period	**Forecast Period**
Utility Plant In-Service	22,823,917	22,823,917
Accumulated Depreciation	(14,874,494)	(15,635,291)
Net Plant	7,949,423	7,188,626
Rate of Return, pre-tax	9.28%	9.39%
Return on Rate Base	737,706	675,012
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue for Return	769,486	704,091
WSCK Portion (2.28%)	**17,544**	**16,053**
Depreciation Expense	1,014,396	1,014,396
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue on Depreciation	1,058,096	1,058,096
WSCKY portion (1.608%)	**17,015**	**17,015**
Total Revenue Requirement	**34,559**	**33,068**

Witness: James Kilbane

EXHIBIT ____ (RAF-12)

AG DR 1-33:

Refer to the Application generally. Confirm whether Water Service Kentucky is requesting any costs associated with the J.D. Edwards financial software system or the Oracle customer care and billing system to be included in the revenue requirement in the pending rate case. If so, identify the costs included in the revenue requirement by amount and by type.

Response: Please see response to AG DR 1-32 above for Project Phoenix. Please see below for revenue requirements for enhancements and upgrades to the JDE and CC&B systems.

JDE	**Base Period**	**Forecast Period**
Utility Plant In-Service	933,760	933,760
Accumulated Depreciation	(376,075)	(407,201)
Net Plant	557,685	526,559
Rate of Return, pre-tax	9.28%	9.39%
Return on Rate Base	51,753	49,444
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue for Return	53,983	51,574
WSCK Portion (2.28%)	**1,231**	**1,176**
Depreciation Expense	41,500	41,500
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue on Depreciation	43,288	43,288
WSCKY portion (1.608%)	**696**	**696**
Total Revenue Requirement	**1,927**	**1,872**

CC&B	**Base Period**	**Forecast Period**
Utility Plant In-Service	1,002,964	1,002,964
Accumulated Depreciation	(108,068)	(141,500)
Net Plant	894,896	861,464
Rate of Return, pre-tax	9.28%	9.39%
Return on Rate Base	83,046	80,891
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue for Return	86,624	84,376
WSCK Portion (2.28%)	**1,975**	**1,924**
Depreciation Expense	44,576	44,576
Gross up rate - PSC Fee, Bad Debt	1.043079	1.043079
Total Revenue on Depreciation	46,497	46,497
WSCKY portion (1.608%)	**748**	**748**
Total Revenue Requirement	**2,723**	**2,671**

Witness: James Kilbane

EXHIBIT ____ (RAF-13)

AG DR 2-29:

Refer to Water Service Kentucky's response to the Attorney General's First Request, Item 33.

a. Explain in detail whether Water Service Kentucky is asserting that due to inadvertently including J.D. Edwards financial software system costs in the pending application, the revenue requirement should be reduced $1,927 for the base period, and $1,872 for the forecast period. If not, explain the response in full detail.

b. Explain in detail whether Water Service Kentucky is asserting that due to inadvertently including Oracle customer care and billing system costs in the pending application, the revenue requirement should be reduced $2,723 for the base period, and $2,671 for the forecast period. If not, explain the response in full detail.

Response: In response to AG DR 1-32, the Company noted the revenue requirement impact of inadvertently including the previously disallowed investments in Project Phoenix (which covered JD Edwards and CC&B implementation). In response to AG DR 1-33, the Company identified the revenue requirement associated with later enhancements to JD Edwards and CC&B, that were not part of Project Phoenix. These enhancements have been requested and recovered in prior rate cases.

Witness: James Kilbane

EXHIBIT ____ (RAF-14)

AG DR 2-40:

Refer to the Application, Exhibit 28.8 and the Total Net Deferred Rate Case Expense – Water, as reflected in line 4. Refer also to the Excel file AG_DR_1-072_-_Exhibits_10-20-28_-_Schedule_A_-_Rate_Base_Components_Updated_7.28.22 attached to the response to the Attorney General's First Request, Item 72. Refer also to the Kilbane Testimony at 25, wherein he describes the addition of the $22,803 in Fusion implementation costs included in account 170009, the Rate Case Being Amortized account.

a. Provide a breakdown of the 13-month balance of $423,478 included in rate base between the amount associated with the instant case, the amount associated with Case No. 2020-00160, and the amount associated with the Fusion implementation costs.

b. For each of the amounts above in response to subpart (a), indicate whether the Company has reflected the corresponding Accumulated Deferred Income Tax ("ADIT") as a reduction to rate base. If not, explain why not for each. If so, indicate for each the amount reflected for ADIT in the forecast test year and the worksheet tab and cell references in the referenced Excel file or any other workpaper source that contains documentation for the ADIT reflection.

Response:

a. This detail can be ascertained by filtering the "Pro-Forma Def Chg" tab in the aforementioned file, column L, for account 170009. Below is a summary as requested.

Deferral	13 mo avg
Fusion Regulatory Asset	19,003
WSCK RC 2020	21,711
2022 Rate Case	382,764
Total	423,478

b. The Company did not include these balances in the pro-forma ADIT calculation in its request. The Company only included pro-forma changes in temporary differences based on book/tax depreciation for ADIT. The Company did not include pro-forma adjustments to ADIT for deferrals as 1) there are generally multiple items that offset in impact, such as rate case deferrals offsetting deferred maintenance, 2) the net effect tends to be immaterial, or 3) the pro-forma for the ADIT component is not readily estimable.

Witness: James Kilbane

EXHIBIT ____ (RAF-15)

AG DR 2-41:

Refer to the Excel file AG DR 1-70 ADIT Rollforward attached to the response to the Attorney General's First Request, Item 70, which shows a rollforward of ADIT amounts by temporary difference through the end of June 2022. Refer further to the Federal ADIT liability balance for "Rate Case" of $25,895.91 and State ADIT liability balance for "Rate Case" of $10,012.85 that were reflected for all month ends starting with December 2021. Provide each of the temporary balances for each individual rate case that were associated with these balances and show how these ADIT amounts were determined. If any portions of these balances were not related to deferred rate case expenses, explain in detail.

Response: The ADIT balances in the rollforward file as of 12/31/2021 referenced reflect the ADIT for the unamortized portion of the 2020 rate case expense deferral and the Fusion Regulatory Asset requested in the current case. These unamortized balances were $$98,359 and $23,044, respectively.

Witness: Don Hong

EXHIBIT ____ (RAF-16)

PSC DR 2-11:

Refer to the Kilbane Testimony at 9–25. Water Service Kentucky is requesting regulatory asset treatment for costs associated with its Fusion implementation project that were not capitalized.

a. Explain if Water Service Kentucky submitted an application pursuant to KRS 278.220 requesting prior Commission authorization permitting Water Service Kentucky to establish a regulatory asset for the recovery of the Fusion implementation costs.

b. Explain if Water Service Kentucky's Fusion implementation costs meets the following long-standing Commission precedent:

(1) The Fusion implementation cost is an extraordinary, nonrecurring expense that could not have been reasonably anticipated or included in the utility's planning.

(2) Fusion implementation cost is an expense resulting from a statutory or administrative directive.

(3) The Fusion implementation cost is an expense in relation to an industry-sponsored initiative.

(4) The Fusion implementation cost is an extraordinary or nonrecurring expense that, over time, will result in a savings that fully offsets the cost.

Response:

a. The Company is asking to establish and amortize the asset in the current case not establish a regulatory asset.

b.

(1) The Fusion implementation cost is a significant, non-recurring one-time expense outside the normal course of business.

(2) As the company's previous ERP system was at end of life, the new system was necessary to continue serving customers as required by the PSC and KY statutes.

(3) The Fusion implementation cost is not an expense related to an industry-sponsored initiative.

(4) The Fusion implementation cost is significant and non-recurring, and it is reasonable and prudent to provide proper service to customers.

Witness: James Kilbane.

EXHIBIT ____ (RAF-17)

AG DR 1-116:

Refer to the projected balance sheet provided as Application, Exhibit 15, and further to line 53, which shows projected 2023 Other Non Current Liabilities of $395,726. Provide a breakdown of this projected amount by individual balance and indicate whether each amount was included in rate base, and if not why not.

Response:

Amount	Description	Entity
(39,774.19)	Non-Qualified Deferred Compensation	WSC - Allocated
(76,154.27)	Reserve for Chicago Office Rent	WSC - Allocated
(2,122.18)	TCJA Excess ADIT	WSC - Allocated
(52,360.00)	TCJA surcredit liability	WSCK
(225,315.21)	ASC 842 - Operating Lease Reserve	WSC - Allocated
(395,725.85)		

- Non-Qualified Deferred Compensation: This balance represents certain employee elections to defer compensation (base salaries and/or EIP) for future payment. CRU records the liability for the future payments, while purchasing COLI assets to informally fund the liability. As the liability and asset balances are designed to approximately offset, there is no need to include the amount above in the rate base.
- Reserve for Chicago Rent: This balance reflects the reserve created by the rent abatements and Tenant Improvement Credits included in the WSC's Chicago office lease, which are created by the lease accounting requirements to capture the difference in rent paid and the straight-line expense recorded over the lease term. As tenant improvements funded by the agreement's credit are included in WSC's allocated fixed assets and CRU's recorded rent expense exceeded its payments due to rent abatement for the first 27 months of the lease, the Company is agreeable to including the WSCK allocated portion

of rent liability in its rate base. The Company has attached an updated balance for the 13-month average for 2023, please see Excel file AG DR 1-116 Chicago Rent Schedule.xlsx.

- TCJA Excess ADIT: This balance represents the Excess ADIT established in 2017, adjusted in 2018, for WSC. WSC expects to write off this balance in 2022.
- TCJA Surcredit Liability: This balance represents the accrual of the TCJA surcredit that was approved in the Company's 2018 rate case and returned to customers in 2019. As the liability has now been returned to customers, the above balance will be written off.
- ASC 842 Operating Lease Reserve: CRU adopted ASC 842 in 2022, and therefore was required to establish reserves for the value of operating leases – both right-of-use asset and lease liability balances. While the liability balance noted above has begun allocation to CRU affiliates, the final accounting of the allocations is still being determined. However, because the asset and liability reserves are designed to approximately offset, and represent a financial statement presentation and not solely the requirement of future payment, there is no need to include the amount above in rate base.

Witness: James Kilbane

EXHIBIT ____ (RAF-18)

AG DR 1-103:

Provide a list of the Company's vehicles which include year, make, and model. In addition, indicate on the list the two vehicles that the Company intends to replace in 2022 and 2023, and provide the plant in service amount and accumulated depreciation amount related to those vehicles as of the end of December 2021.

Response: Please see Excel file AG DR 1-072 - Exhibits 10-20-28 - Schedule A - Rate Base Components Updated 7.28.22.xlsx, Vehicles-Computers tab for the vehicle details requested. The two vehicles that have been replaced or will be replaced – are the 2008 Chevy Silverado in 2021 and 2011 Toyota Prius in 2023 are highlighted in yellow.

Witness: James Kilbane

EXHIBIT ____ (RAF-19)

PSC DR 2-18:

Refer to the Colby Testimony, page 8.

a. Regarding the Clinton Main Replacement.

(1) Provide the study used to support the need to this project.

(2) Explain whether Water Service Kentucky is requesting a Certificate of Public Convenience and Necessity for this project. If not, explain why.

(3) Provide the request for proposal (RFP) and the responses for this project.

b. Regarding the New Vehicles:

(1) Explain whether Water Service Kentucky examined whether it would be more beneficial to finance the two vehicles.

(2) Explain whether the vehicle Water Service Kentucky is expecting to purchase in 2022 has been purchased or not. If so, provide the purchase agreement.

(3) Provide the depreciation balance of the vehicles being replaced.

c. Provide a list of projects and the associated costs of any replacement and/or upgrading to the existing assets for years 2019, 2020, and 2021.

Response:

a.

(1) WSCK did not conduct a study for this replacement. Rather, the Company considered the history of customer complaints, for both quantity and nature, in prioritizing this project.

(2) WSCK is not requesting a CPCN since this project is less than 10% of WSCK's capital.

(3) WSCK expects to issue the RFP in late 2022.

b.

(1) Corix's fleet services department adopted the practice of purchasing rather than leasing vehicles and purchasing outright based on available capital at the CRU level for the applicable affiliates, which the credit revolver generally supports.

(2) No final purchase agreement or bill of sale exists. Please see attached order form from the dealer, file PSC DR 2-18b2 - Vehicle purchase order form.

(3) The Company is replacing one vehicle during 2022-2023, a 2011 Toyota Prius, with the forecasted vehicle purchases. This vehicle is fully depreciated with an original cost of $25,556.42.

c. The Queensbury Heights water main replacement project was placed in-service in March 2020, with a final cost of $65,548.

Witness: Colby Wilson/James Kilbane

LEGACY

Date:	7/15/2022
Salesperson:	Tommy Reid
Manager:	Steve Farmer

FOR INTERNAL USE ONLY

BUSINESS NAME	WATER SERVICE COR OF KY	Home Phone :	(606) 269-0909
CONTACT	COLBY WILSON		
Address :	102 WATER PLANT ROAD MIDDLESBORO, KY 40965 BELL	Work Phone :	
E-Mail :	COLBY.WILSON@WSCKY.COM	Cell Phone :	(606) 499-3630

VEHICLE

Stock # : G4178 New / Used : New VIN : 1GCHTBEAXN1236891 Mileage: 2

Vehicle : 2022 Chevrolet Colorado Color : SUMMIT WHITE

Type : WT 4x4 Extended Cab 6 ft. box 128.3 12M53

Market Value Selling Price	30,865.00
Rebate	3,900.00
Adjusted Price	26,965.00
Tax	1,617.90
Non Tax Fees	676.00
Cash Deposit	.00
Balance	29,258.90

Customer Approval: ______________________ Management Approval: Steve Farmer

By signing this authorization form, you certify that the above personal information is correct and accurate, and authorize the release of credit and employment information. By signing above, I provide to the dealership and its affiliates consent to communicate with me about my vehicle or any future vehicles using electronic, verbal and written communications including but not limited to eMail, text messaging, SMS, phone calls and direct mail. Terms and Conditions subject to credit approval. For Information Only. This is not an offer or contract for sale.

O: 606-401-2215

EXHIBIT ____ (RAF-20)

AG DR 1-44:

Refer to the Wilson Testimony, page 8.

a. Explain in detail why the proposed Clinton Main Replacement is necessary at this time. Ensure to include in the discussion how the project will provide a loop in the system, and improve water quality to this section of the community.

b. Provide the make, model, mileage, and estimated value of the two vehicles that are proposed to be replaced with new vehicles.

c. Explain in detail whether Water Service Kentucky intends to sell the two older vehicles, and if so, how it will apply those funds.

d. Provide the make, model, and mileage of the two vehicles that Water Service Kentucky proposes to purchase.

Response:

a. WSCK selected this section of the Clinton main for replacement because of the persistent need to flush the line daily to maintain adequate service and water quality. The line will loop directly into a 6-inch main sourced from the Grubbs subdivision tank. The proposed tie-in will occur near the site of the installed automatic flusher, which will eliminate the need to daily flush and manually monitor the line.

b. The two vehicles are a 2006 Chevy pickup that will not be replaced but rather will be used as a spare vehicle for employees to use during routine or emergency maintenance of their primary vehicle; and a 2011 Toyota Prius with 121,626 miles, WSCK does not know the value of that vehicle.

c. The operations team has determined that the 2011 Prius is not a practical vehicle to suit the operational needs to support the system, and a Chevy Colorado is a more useful alternative.

The Prius is also fully depreciated. WSCK intends to record any proceeds to the Gain/Loss - Sale of Fixed Assets account.

d. WSCK proposes to purchase 2022 and 2023 Chevy Colorado trucks. These will be brand new vehicle purchases.

Witness: Colby Wilson/James Kilbane

EXHIBIT ____ (RAF-21)

AG DR 1-70:

Provide a schedule that shows the per books accumulated deferred income tax ("ADIT") by account/subaccount and by temporary difference at the end of each month December 2020 through the most recent month with available data. Provide the amounts on the books of Water Service Kentucky and the amounts that are allocated from WSC and/or other affiliates.

Response: Please see Excel file AG DR 1-70 ADIT Rollforward.xlsx

Witness: James Kilbane

Fusion	JDE Acct Description	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021
255001	ACCUM DEF INCOME TAX-FED	(14,641.73)	(14,636.73)	(14,636.73)	(14,636.73)	(14,636.73)	(14,636.73)	(14,636.73)
255001	DEF FED TAX - TAP FEE POST 200	2,201.41	1,470.41	1,470.41	1,470.41	1,470.41	1,470.41	1,470.41
255001	DEF FED TAX - RATE CASE	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)
255001	DEF FED TAX - DEF MAINT	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)
255001	DEF FED TAX - ORGN EXP	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)
255001	DEF FED TAX - BAD DEBT	24,709.41	24,709.41	24,709.41	24,709.41	24,709.41	24,709.41	24,709.41
255001	DEF FED TAX - DEPRECIATION	(841,472.66)	(840,746.66)	(840,746.66)	(840,746.66)	(840,746.66)	(840,746.66)	(840,746.66)
255001	DEF FED TAX - NOL	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69
255001	DEFERRED FEDERAL TAX LIABILITY	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)
255002	ACCUM DEF INCOME TAX - ST	(7,714.00)	(7,712.00)	(7,712.00)	(7,712.00)	(7,712.00)	(7,712.00)	(7,712.00)
255002	DEF ST TAX - TAP FEE POST 2000	626.01	420.01	420.01	420.01	420.01	420.01	420.01
255002	DEF ST TAX - RATE CASE	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)
255002	DEF ST TAX - DEF MAINT	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)
255002	DEF ST TAX - ORGN EXP	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)
255002	DEF ST TAX - BAD DEBT	7,701.87	7,701.87	7,701.87	7,701.87	7,701.87	7,701.87	7,701.87
255002	DEF ST TAX - DEPRECIATION	(131,902.90)	(131,698.90)	(131,698.90)	(131,698.90)	(131,698.90)	(131,698.90)	(131,698.90)
255002	DEF ST TAX - NOL	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41
255002	DEFERRED STATE TAX LIABILITY	62,037.98	62,037.98	62,037.98	62,037.98	62,037.98	62,037.98	62,037.98

Fusion	JDE Acct Description	7/31/2021	8/31/2021	9/30/2021	10/31/2021	11/30/2021	12/31/2021 2020 RTP	12/31/2021 2021 CY
255001	ACCUM DEF INCOME TAX-FED	(14,636.73)	(14,636.73)	(14,636.73)	(14,636.73)	(14,636.73)	903.00	(2,388.00)
255001	DEF FED TAX - TAP FEE POST 200	1,470.41	1,470.41	1,470.41	1,470.41	1,470.41		(10.00)
255001	DEF FED TAX - RATE CASE	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)	(28,915.91)		3,020.00
255001	DEF FED TAX - DEF MAINT	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)	(17,565.64)		(124,392.00)
255001	DEF FED TAX - ORGN EXP	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)	(20,207.61)		1,312.00
255001	DEF FED TAX - BAD DEBT	24,709.41	24,709.41	24,709.41	24,709.41	24,709.41		41,424.00
255001	DEF FED TAX - DEPRECIATION	(840,746.66)	(840,746.66)	(840,746.66)	(840,746.66)	(840,746.66)	(2,977.00)	(28,109.00)
255001	DEF FED TAX - NOL	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69		
255001	DEFERRED FEDERAL TAX LIABILITY	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)	(780,357.04)	(2,074.00)	(109,143.00)
255002	ACCUM DEF INCOME TAX - ST	(7,712.00)	(7,712.00)	(7,712.00)	(7,712.00)	(7,712.00)	226.00	(599.00)
255002	DEF ST TAX - TAP FEE POST 2000	420.01	420.01	420.01	420.01	420.01		46.00
255002	DEF ST TAX - RATE CASE	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)	(10,769.85)		757.00
255002	DEF ST TAX - DEF MAINT	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)	(5,744.18)		(31,176.00)
255002	DEF ST TAX - ORGN EXP	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)	(3,151.38)		329.00
255002	DEF ST TAX - BAD DEBT	7,701.87	7,701.87	7,701.87	7,701.87	7,701.87		10,382.00
255002	DEF ST TAX - DEPRECIATION	(131,698.90)	(131,698.90)	(131,698.90)	(131,698.90)	(131,698.90)	(744.00)	(7,045.00)
255002	DEF ST TAX - NOL	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41		
255002	DEFERRED STATE TAX LIABILITY	62,037.98	62,037.98	62,037.98	62,037.98	62,037.98	(518.00)	(27,306.00)

2021 Provision Adj. (139,041.00)

Fusion	JDE Acct Description	12/31/2021	1/31/2022	2/28/2022	3/31/2022	4/30/2022	5/31/2022	6/30/2022
255001	ACCUM DEF INCOME TAX-FED	(16,121.73)	(16,121.73)	(16,121.73)	(16,121.73)	(16,121.73)	(16,121.73)	(16,121.73)
255001	DEF FED TAX - TAP FEE POST 200	1,460.41	1,460.41	1,460.41	1,460.41	1,460.41	1,460.41	1,460.41
255001	DEF FED TAX - RATE CASE	(25,895.91)	(25,895.91)	(25,895.91)	(25,895.91)	(25,895.91)	(25,895.91)	(25,895.91)
255001	DEF FED TAX - DEF MAINT	(141,957.64)	(141,957.64)	(141,957.64)	(141,957.64)	(141,957.64)	(141,957.64)	(141,957.64)
255001	DEF FED TAX - ORGN EXP	(18,895.61)	(18,895.61)	(18,895.61)	(18,895.61)	(18,895.61)	(18,895.61)	(18,895.61)
255001	DEF FED TAX - BAD DEBT	66,133.41	66,133.41	66,133.41	66,133.41	66,133.41	66,133.41	66,133.41
255001	DEF FED TAX - DEPRECIATION	(871,832.66)	(871,832.66)	(871,832.66)	(871,832.66)	(871,832.66)	(871,832.66)	(871,832.66)
255001	DEF FED TAX - NOL	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69	115,535.69
255001	DEFERRED FEDERAL TAX LIABILITY	(891,574.04)	(891,574.04)	(891,574.04)	(891,574.04)	(891,574.04)	(891,574.04)	(891,574.04)
255002	ACCUM DEF INCOME TAX - ST	(8,085.00)	(8,085.00)	(8,085.00)	(8,085.00)	(8,085.00)	(8,085.00)	(8,085.00)
255002	DEF ST TAX - TAP FEE POST 2000	466.01	466.01	466.01	466.01	466.01	466.01	466.01
255002	DEF ST TAX - RATE CASE	(10,012.85)	(10,012.85)	(10,012.85)	(10,012.85)	(10,012.85)	(10,012.85)	(10,012.85)
255002	DEF ST TAX - DEF MAINT	(36,920.18)	(36,920.18)	(36,920.18)	(36,920.18)	(36,920.18)	(36,920.18)	(36,920.18)
255002	DEF ST TAX - ORGN EXP	(2,822.38)	(2,822.38)	(2,822.38)	(2,822.38)	(2,822.38)	(2,822.38)	(2,822.38)
255002	DEF ST TAX - BAD DEBT	18,083.87	18,083.87	18,083.87	18,083.87	18,083.87	18,083.87	18,083.87
255002	DEF ST TAX - DEPRECIATION	(139,487.90)	(139,487.90)	(139,487.90)	(139,487.90)	(139,487.90)	(139,487.90)	(139,487.90)
255002	DEF ST TAX - NOL	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41	212,992.41
255002	DEFERRED STATE TAX LIABILITY	34,213.98	34,213.98	34,213.98	34,213.98	34,213.98	34,213.98	34,213.98

AG DR 2-44:

Refer to Water Service Kentucky's response to the Attorney General's First Request, Item 70, Excel file AG DR 1-70 ADIT Rollforward, which shows a rollforward of ADIT amounts by temporary difference through the end of June 2022. Refer also to Water Service Kentucky's response to the Attorney General's First Request, Item 72, Excel file

AG_DR_1-072_-_Exhibits_10-20-28_-_Schedule_A_-

_Rate_Base_Components_Updated_7.28.22.

a. Confirm that the only changes made to the projection of ADIT balances to include in rate base for the test year related to the differences projected for book vs. tax depreciation that occurred after the end of 2021. If not confirmed, explain and provide a schedule showing the 13 months of data by temporary difference for state and federal ADIT included in the test year.

b. Refer to debit balances of federal and state ADIT associated with bad debt that are reflected throughout the months during 2022 of $66,133.41 and $18,083.87, respectively. Explain how those amounts were determined and describe the temporary difference they are related to in detail.

c. Refer to debit balances of federal and state ADIT associated with bad debt that are reflected throughout the months during 2022 of $66,133.41 and $18,083.87, respectively. Indicate whether the temporary difference(s) related to each balance is removed from rate base. If not, describe why the ADIT should be reflected in rate base when the associated temporary difference is not.

d. Refer to the debit balances of federal and state ADIT applicable to Net Operating Loss ("NOL") Carryforward amounts reflected throughout all of the months from December 2020 through June 2022 of $115,535.69 and $212,992.41, respectively. Describe the major reasons why the federal and state NOL Carryforward amounts resulted and explain why the amounts reflected for ADIT do not change for any of the months reflected. In particular, explain why the state NOL ADIT amount is so high.

e. Refer to the debit balances of federal and state ADIT applicable to NOL Carryforward amounts reflected throughout all of the months from December 2020 through June 2022 of $115,535.69 and $212,992.41, respectively. Provide a schedule that shows the derivation of each of the federal and state NOL carryforward amounts and utilization activity of each by year since the NOL carryforwards with remaining balances were created.

Response:

a. Confirmed, please see response to AG DR 2-40.
b. These are related to activity in the bad debt reserve taken as an expense for book purposes but are not currently allowed for tax purposes. The tax deduction is only allowed when the actual accounts receivable is written off. The 2020 and 2021 journal entry support are provided for the computation, please see attached file AG DR 2-44 ADIT Calculations.xlsx.
c. These temporary differences and their resulting impacts in ADIT as of 12/31/2021 are not removed from rate base. Please see file referenced above attached in response to AG DR 1-72, Pro-forma UPIS-AD-ADIT tab, cells S501 and S502, which tie to the 12/31/2021 rollforward Federal and State ADIT balances.
d. The major reason why the federal and state NOLs were generated were because of federal bonus depreciation in the past years; in addition, any deferred charges and rate case being capitalized and amortized for regulatory purposes are deductible for tax purposes in the year incurred. These 3 items together provided additional tax deductions in the earlier

years. The amounts reflected for ADIT do not change for any of the months reflected due to the fact that the federal NOL is part of a consolidated filing and hence utilized by other regulated/non-regulated entities within the consolidated group; that movement entry is booked at the parent company level. Similarly for the Kentucky NOL – Kentucky was required to file as a unitary filing starting with the 2019 return and the KY NOLs are being utilized by other regulated/non-regulated entities within the unitary group.

e. Please see attached file AG DR 2-44 ADIT Calculations.xlsx.

Witness: Don Hong

EXHIBIT ____ (RAF-22)

AG DR 1-63:

Refer to the Commission's recent final Orders in Case No. 2021-00190 at 15, and in Case No. 2021-00214 at 18 – 20, regarding the requirements to file lead/lag studies with all non-cash items removed in order to properly determine the level of cash working capital. Provide a lead/lag study with all non-cash items removed.

Response:

Objection. This request for information is unduly burdensome. The cost to incur a lead/lag study, which would be recovered from customers, would outweigh its benefit. In fact, several Commission cases confirm that the 1/8 method utilized by WSCK in its application is reasonable. *See, e.g.*, *Kentucky-American Water Company*, Case No. 2021-00434, 2022 WL 1322876, at *15 (Ky. PSC Staff Report Apr. 25, 2022)("The 1/8 formula approach is an alternate method that has been historically accepted by this Commission, is easy to apply, and will result in a reasonable working capital allowance."); *Kentucky-American Water Co.*, Case No. 2014-00390 (Ky. PSC Staff Report Mar. 31, 2015) (quoting Accounting for Public Utilities (by Robert L. Hahne and Gregory E. Aliff Deloitte & Touche, Revision Release 7, December 1990) at 5-7)("[T]he 45-day or 1/8 formula approach frequently used by the Commission has been widely accepted because 'it was determined to be a reasonable estimate of what a lead-lag study would produce without the related expense of a lead-lag study'"); Delta Natural Gas Co., Case No. 97-066, 1997 WL 34863540 (Ky. PSC Dec. 8, 1997)("The Commission finds that, in the absence of any lead-lag study, the 1/8th formula method should be used to determine the level of cash working capital."); *see also Kentucky Power Co.*, Case No. 2002-00169, 2003 WL 26453635, at *16 (Ky. PSC Mar. 31, 2003); *Kentucky Utilities Co.*, Case No. 2000-00439, 2001 WL 36415874, at *4 (Ky. PSC Apr. 18, 2001); *Union Light, Heat, and Power Co.*, 146

P.U.R.4th 81 (Ky. PSC July 23, 1993); *Louisville Gas and Electric Co.*, 119 P.U.R.4th 431 (Ky. PSC Dec. 21, 1990).

Without waiving the foregoing objection, WSCK states as follows:

WSCK has not performed a lead/lag study, nor has it retained a consultant to perform such a study. In utilizing the 1/8 method commonly supported by the Commission, WSCK notes that it did not include depreciation expense—a noncash item—in its calculation.

Witness: Legal; James Kilbane

EXHIBIT ____ (RAF-23)

AG DR 1-82:

Refer to the projected Income Statement information provided in the Application, Exhibit 29. Provide a similar schedule which shows the same level of detail for each of the calendar years 2017 through 2021, for the base year, and for the test year.

Response: Please see Excel file AG DR 1-82 and 84 IS and DS.xlsx.

Witness: James Kilbane

AG DR 1-84:

Refer to the detailed account descriptions and data included in the Application, Exhibits 29.7 (Maintenance and Repair), 29.8 (Maintenance Testing), 29.9 (Chemicals) 29.10 (Transportation), 29.11 (Outside Services), 29.12 (Office Supplies and Other Expense), 29.14 (Pension and Other Benefits), 29.16 (Insurance Expense), 29.17 (Office Utilities), 29.18 (Miscellaneous Expense), and 29.22 (Taxes other than Income). Provide similar schedules for each which depict the same level of detail for each of the calendar years 2017 through 2021, for the base year, and for the test year.

Response: Please see Excel file AG DR 1-82 and 84 IS and DS.

Witness: James Kilbane

Combined Operations

Pro-Forma Income Statement

Line No.	Description	2017	2018	2019	2020	2021	Base Period *	Forecasted Period
1	Operating Revenues							
2	Service Revenues - Water	2,414,588	2,472,294	2,736,483	2,772,211	3,261,216	3,254,466	3,261,891
3	Service Revenues - Sewer	177,741	118,021	144,929	116,580	137,505	-	-
4	Miscellaneous Revenues	62,803	56,935	58,287	34,418	7,698	297	297
5	Uncollectible Accounts	(45,687)	(48,619)	(59,480)	(96,792)	(202,899)	(127,834)	(128,126)
6	Total Operating Revenues	2,609,446	2,598,630	2,880,220	2,826,416	3,203,521	3,126,929	3,134,063
7	Maintenance Expenses							
8	Salaries and Wages	-	-	-	-	-	-	-
9	Purchased Power	101,367	106,395	121,347	132,618	114,484	114,865	114,865
10	Purchased Water / Sewer	123,204	123,830	125,956	126,960	133,471	124,398	123,204
11	Maintenance and Repair	127,934	101,994	180,336	167,982	207,470	182,935	176,218
12	Maintenance Testing	43,482	30,039	36,749	41,472	37,493	25,028	25,028
13	Meter Reading	-	-	-	-	-	-	-
14	Chemicals	108,012	99,159	120,785	114,153	121,833	100,858	103,885
15	Transportation	28,507	38,705	43,057	29,059	44,146	43,119	48,835
16	Operating Exp. Charged to Plant	(110,733)	(73,100)	(58,812)	(63,754)	(34,316)	(46,677)	(138,212)
17	Outside Services - Other	39,671	155,639	174,679	57,383	32,216	36,285	23,411
18	Total	461,444	582,663	744,098	605,873	656,797	580,811	477,234
19	General Expenses							
20	Salaries and Wages	790,838	842,189	890,157	958,948	877,326	881,240	936,694
21	Office Supplies & Other Office Exp.	60,149	62,205	92,830	107,696	47,345	52,742	51,492
22	Regulatory Commission Exp.	69,744	78,551	53,965	49,500	55,594	51,318	160,706
23	Pension & Other Benefits	183,280	196,194	221,756	233,279	233,995	253,009	309,783
24	Rent	12,269	16,823	32,856	33,061	15,654	18,778	20,025
25	Insurance	75,288	77,927	72,429	73,477	70,948	104,265	113,401
26	Office Utilities	53,765	57,226	44,309	40,659	17,528	24,538	20,708
27	Miscellaneous	33,336	25,372	40,896	182,152	677,645	643,137	667,561
28	Total	1,278,669	1,356,487	1,449,197	1,678,772	1,996,034	2,029,025	2,280,371
29	Depreciation	290,060	308,124	392,526	419,212	339,547	392,355	474,205
30	Amortization of PAA	(3,660)	(3,660)	(3,660)	(3,660)	(3,660)	(3,660)	(3,660)
31	Payroll Taxes	58,386	61,400	61,344	65,436	56,001	66,297	71,972
32	Franchise Tax	109	87	128	104	-	-	-
33	Gross Receipts Tax	-	-	-	-	-	-	-
34	Property Taxes	93,524	35,343	176,019	143,018	113,523	113,256	116,621
35	Special Assessments	-	0	-	-	-	-	-
36	Utility/Commission Tax	4,789	4,900	5,252	5,525	5,728	6,624	6,638
37	Other General Taxes	(8)	12	(11)	2,263	-	-	-
38	Income Taxes - Federal	(398,456)	9,089	26,161	(17,120)	71,221	(43,186)	(92,201)
39	Income Taxes - State	18,223	16,082	(8,371)	24,606	28,074	(10,824)	(23,108)
40	Amortization of CIAC	(7,516)	(7,711)	(8,903)	(10,208)	(10,291)	(10,356)	(10,356)
41	Total	55,449	423,666	640,484	629,176	600,143	510,505	540,111
42	Total Operating Expenses	1,795,563	2,362,816	2,833,779	2,913,821	3,252,974	3,120,341	3,297,715
43	Net Operating Income	813,883	235,814	46,440	(87,405)	(49,453)	6,588	(163,653)

* Sewer expenses and revenues excluded from the base period

EXHIBIT ____ (RAF-24)

AG DR 2-63:

Refer to the Excel file AG_DR_1-82_ and_ 84_ IS_ and_ DS attached to Water Service Kentucky's responses to the Attorney General's First Request, Items 82 and 84, and further to the worksheet tab Income Statement which shows amounts for miscellaneous revenues per year excerpted below. Describe what types of revenue have been or will be recorded each year from 2017 through the test year. Also, explain all known reasons why the amounts for such revenues started decreasing significantly in 2020 and appear to be virtually non-existent in the base year and test year.

	2017	**2018**	**2019**	**2020**	**2021**	**Base Period**	**Forecasted Period**
Miscellaneous Revenues	62,803	56,935	58,287	34,418	7,698	297	297

Response:

Through the 2020 rate case, the Company charged: NSF fees, meter testing, service reconnection charges, and tampering fees. The conclusion the 2020 rate case changed the reconnection charges to zero. In the Forecast Period, these revenues include a nominal level of NSF fees and meter testing fees.

Witness:

James Kilbane

EXHIBIT ____ (RAF-25)

AG DR 1-80:

Refer to the comparative income statement information provided in the Application, Exhibit 33. Describe all known major reasons why operating expenses on line 4 increased by $474,033 ($2,855,773 - $2,381,740), approximately 19.9% from 2020 to 2021.

Response: Bad debt expense was approximately $97,000 in 2020, in 2021 it was approximately $203,000. Salaries increased by approximately $100,000 after a reorganization and accounting of certain personnel and standard merit increases. In 2021, legal expenses exceeded that in 2020 by approximately $20,000 due to higher activity in increasingly complex legal matters. Transportation costs also increased by $15,000 because of higher fuel costs and more vehicle repairs. Captime decreased by $25,000 because of the mix of recurring construction activities. Deferred Maintenance increased by approximately $25,000 in 2021 due to annualization of amortization for tank rehabilitation projects. All other increases are assumed to be caused by inflationary and other market factors.

Witness: James Kilbane

EXHIBIT ____ (RAF-26)

PSC DR 3-22:

In Case No. 2020-00160,[4] Water Service Kentucky reported a Miscellaneous expense of $37,623[5] for the 12-month historical period ending March 31, 2020. Water Service Kentucky's Miscellaneous expense for the forecasted test-year is $667,561, an increase over the previous rate case of $629,938, or a 1,674.34 percent increase.

a. Provide detailed explanation for the increase in forecasted Miscellaneous expense over the amount reported in Case No. 2020-00160.

b. Provide an itemized list of each item included in Water Service Kentucky's forecasted Miscellaneous expense of $667,561.

Response:

a. For 2021, the Corix CAM allocation consolidated WSC and CII corporate and support services costs, and allocations flow to 2 expense accounts - corporate and regional allocation accounts - that fall within the Miscellaneous Expense category. Previously, WSC support services costs were posted to the various expenses accounts that reflected the various services provided.

b. Please see Application Exhibit 29 Schedule C for the allocation detail and Application Exhibit 29.18 for the remainder itemized by account detail.

Witness: James Kilbane

EXHIBIT ____ (RAF-27)

AG DR 1-7:

Refer to the Application generally. Explain whether any vacant position costs are included in the proposed revenue requirement. If so, provide the job title, salary/wage, necessity of the position, date the job was created and vacated, explanation as to why the position is currently vacant, and an estimated date as to when the position will be filled.

Response: As of May 31, 2022, Salaries Expense included two open positions. The first position is the Director of Engineering and Asset Management, salary $133,750, which is necessary to oversee capital projects. The position was created in 2017 under a different title and has been open since November 2021, the position is currently posted and available. The other position is a Kentucky Operations Apprentice, entry-level position. The position was created in 2018 and has been open since May 2021 when its former occupant was promoted to Water-Wastewater Operator I. The elevation of the prior Operations Apprentice to Operator demonstrates the benefit of having the apprentice position to draw new talent to the industry. Estimated date when position to be filled, the position is currently posted and available. Both positions are expected to be filled by September 30, 2022.

Witness: James Kilbane

EXHIBIT ____ (RAF-28)

AG DR 1-3:

Refer to the Application generally. Provide the following information for Water Service Kentucky employees, as well as all employees' whose costs are allocated to Water Service Kentucky.

a. Provide the position title and salary for each salaried employee for the years 2017 – 2022.

b. Provide the average raise that the salaried employees received for the years 2017 – 2022. Ensure to explain whether the annual raise is directly connected to a performance review.

c. Provide the average bonus that each salaried employee received for the years 2017 - 2022.

d. Provide all awards given to the salaried employees for the years 2017 – 2022.

e. Provide all vehicle allowances given to the salaried employees for the years 2017 – 2022.

f. Provide all incentive compensation given to the salaried employees for the years 2017 – 2022.

g. Provide the average raise, if any, which will be given to salaried employees for 2023.

h. Provide the position title and wages for each non-salaried employee for the years 2017 – 2022.

i. Provide the average raise provided to the non-salaried employees for the years 2017 – 2022. Ensure to explain whether the annual raise is directly connected to a performance review.

j. Provide the average bonus provided to the non-salaried employees for the years 2017 – 2022.

k. Provide all awards given to the non-salaried employees for the years 2017 – 2022.

l. Provide all vehicle allowances given to the non-salaried employees for the years 2017 – 2022.

m. Provide all incentive compensation given to the non-salaried employees for the years 2017 – 2022.

n. Provide the average raise, if any, which will be given to non-salaried employees for 2023.

o. Provide a detailed explanation of the insurance benefits provided to the Company's employees, including but not limited to health, dental, vision, life insurance, etc. Ensure to include all premiums paid by the Company's employees, premiums paid by the Company or parent company on the employees' behalf, as well as all copays, deductibles, and maximum out of pocket amounts.

p. Provide a detailed explanation of the retirement benefits provided to the Company's employees, including but not limited to, whether there is a defined benefit plan, 401(k) matching, etc.

Response:

In response to Items A – D and F – I, please refer to the response to PSC DR 2-9.

Items J – M are not applicable to WSCK.

e. Please see attached Excel file AG DR 1-003 Auto Allowance CONFIDENTIAL.xlsx

n. The average increase estimated for 2023 for non-salaried employees is 11.2%. Please note that all forecasted increases for 2023 above an estimated 3% merit increase are due to the market pay adjustment implemented concurrently.

o. Please see responses to PSC DR 1-40, PSC DR 1-41, and PSC DR 1-42.

p. Please see response to PSC DR 1-43.

Witness: James Kilbane

EXHIBIT ____ (RAF-29)

AG DR 1-41:

Refer to the Watkins Testimony, page 4.

a. Confirm that according to the Wage and Benefit Study, as of 2023, Water Service Kentucky's projected base compensation will be 3% above market midpoint averages.

b. Mr. Watkins states that the total compensation in 2022 including salary and health and retirement benefits costs are 7% above the market midpoint. Provide the results for the total compensation including salary and health and retirement benefit costs for 2023.

Original Response:

a. Confirmed. Please see Table VII on page 6 of the Wage and Benefit Study, which lists the market position for each position in-scope for the study and summarizes WSCK's overall market position based on a weighted average of all positions.

b. Mr. Watkins did not conduct a total compensation study for 2023 because 2022 report contains the comparison of WSCK's total compensation, which include health and retirement benefits, whereas the 2023 base salary comparison is company specific. The base salary analysis uses position-by-position review of all 19 WSCK in-scope positions whereas the health and retirement benefit analysis contain inflated base salaries from values from the Bureau of Labor Statistics ("BLS"). Mr. Watkins did not believe it was neither appropriate nor informative to apply a historical value to 2023 given the current high inflationary economic environment. Additionally, BLS values came from a survey sample of all positions at all utilities in the United States that inevitably include an unknowable amount of noise and data from incomparable organizations (e.g., utilities with part-time positions, utilities with a mix of employees who participate in health and retirement programs, and utilities with significantly more administrative positions than WSCK). To understand how WSCK's health and retirement benefits compare to similar utilities, please reference the section of the report which compares WSCK's pay practices to those of other utilities in Kentucky. Tables XV and XVI on pages 11-12 compare the employer and employee costs for Preferred Provider Organization ("PPO") and High Deductible Health Plan ("HDHP") plans respectively. These indicate that WSCK's costs align with peers' costs.

Please see attached Total Compensation Study from 2022, AG DR 1-41 WSCK Market Position – Total Compensation 2022.

Supplemental August 16, 2022 Response:

a. After incorporating changes to the WSCK organization provided by the Company, WSCK's projected base compensation in 2023 will be 2% below the market midpoint averages. Please see Table VII on page 7 of the Wage and Benefit Study which lists the market position for each position in-scope for the study and summarizes WSCK market position overall based on a weighted average of all positions.

b. After incorporating changes to the WSCK organization provided by the company, WSCK's total compensation in 2022, including health and retirement benefits, is 8% above the market midpoint averages. Mr. Watkins did not conduct a total compensation study for 2023. He did not because, while a comparison of WSCK's total compensation was provided in the report for 2022, the base salary comparison is more company-specific for the 2023 comparison as compared to the health and retirement benefits comparison. It is also because the base salary analysis is conducted using a thorough position-by-position analysis of all 19 in-scope positions for WSCK, while the health and retirement benefit analysis is inflated each base salary using a single value from Bureau of Labor Statistics ("BLS") each for health and retirement benefits. Mr. Watkins did not believe it was appropriate nor informative to apply a historical value to 2023, particularly given the current historically high inflationary economic environment. Further, because the BLS values came from a survey sample of all positions at all utilities in the U.S., they inevitably include an unknowable amount of noise and data from organizations that would not be comparable to WSCK (e.g., utilities with part-time positions, utilities with a mix of employees who participate in health and retirement programs and those that do not, and utilities with significantly more administrative positions than WSCK). To understand how WSCK's health and retirement benefits compare to similar utilities, please reference the section of the report which compares WSCK's pay practices to those of other utilities in Kentucky. Tables XV and XVI on pages 11-12 compare the employer and employee costs for Preferred Provider Organization ("PPO") and High Deductible Health Plan ("HDHP") plans respectively, and they indicate that WSCK's costs are very much in line with peers.

Please see attached updated Excel file AG DR 1-41 Updated 8-16-2022.xlsx.

Witness: Quentin M. Watkins

Attachment AG DR 1-41
Page 1 of 2
WSCK Market Position - Total Compensation 2022

#	Position	Base Compensation			Health Benefits			Retirement Benefits			Total Compensation			
		WSCK Base Compensation	Market Midpoint for Base Comp	WSCK % of Mkt Midpoint for Base Comp	WSCK Health Benefit Cost	Market Midpoint for Health Benefits	WSCK % of Mkt Midpoint for Health Benefits	WSCK Retirement Benefit Cost	Market Midpoint for Health Benefits	WSCK % of Mkt Midpoint for Health Benefits	WSCK Total Compensation (Incl. Health & Retirement)	Total Compensation Market Midpoint (1)	WSCK % of Mkt Midpoint	Delta to Midpoint
1	Compliance Manager	$ 77,250	$ 105,880	73%	$ 7,744	$ 8,259	94%	$ 5,408	$ 5,506	98%	$ 90,402	$ 119,644	76%	24%
2	Dir. Engineering & Asset Management	$ 129,854	$ 159,048	82%	$ 7,226	$ 12,406	58%	$ 9,362	$ 8,270	113%	$ 146,442	$ 179,724	81%	19%
3	Dir. Financial Planning & Analysis	$ 138,000	$ 165,600	83%	$ 7,828	$ 12,917	61%	$ 9,660	$ 8,611	112%	$ 155,488	$ 187,128	83%	17%
4	Field Tech I	$ 34,380	$ 42,495	81%	$ 14,393	$ 3,315	434%	$ 2,893	$ 2,210	131%	$ 51,666	$ 48,019	108%	-8%
5	Field Tech I	$ 36,852	$ 40,853	90%	$ 7,226	$ 3,187	227%	$ 3,656	$ 2,124	172%	$ 47,734	$ 46,164	103%	-3%
6	Field Tech I	$ 36,150	$ 42,495	85%	$ 14,027	$ 3,315	423%	$ 3,169	$ 2,210	143%	$ 53,346	$ 48,019	111%	-11%
7	Field Tech I	$ 33,592	$ 42,495	79%	$ 7,226	$ 3,315	218%	$ 3,122	$ 2,210	141%	$ 43,940	$ 48,019	92%	8%
8	Field Tech I	$ 34,029	$ 42,495	80%	$ 7,226	$ 3,315	218%	$ 2,423	$ 2,210	110%	$ 43,678	$ 48,019	91%	9%
9	Financial Planning & Analysis Manager	$ 120,000	$ 124,132	97%	$ 26,893	$ 9,682	278%	$ 8,694	$ 6,455	135%	$ 155,587	$ 140,269	111%	-11%
10	GIS Analyst	$ 67,600	$ 76,286	89%	$ 26,893	$ 5,950	452%	$ 4,874	$ 3,967	123%	$ 99,367	$ 86,204	115%	-15%
11	KY Operations Apprentice	$ 31,200	$ 42,022	74%	$ 7,226	$ 3,278	220%	$ 2,184	$ 2,185	100%	$ 40,610	$ 47,484	86%	14%
12	Lead Water-Wastewater Operator	$ 53,560	$ 57,053	94%	$ 16,892	$ 4,450	380%	$ 4,772	$ 2,967	161%	$ 75,224	$ 64,470	117%	-17%
13	Lead Water-Wastewater Operator	$ 65,952	$ 57,053	116%	$ 24,824	$ 4,450	558%	$ 5,383	$ 2,967	181%	$ 96,159	$ 64,470	149%	-49%
14	Senior Vice President	$ 304,676	$ 285,304	107%	$ 23,673	$ 22,254	106%	$ 18,315	$ 14,836	123%	$ 346,664	$ 322,393	108%	-8%
15	State Operations Manager	$ 82,003	$ 97,023	85%	$ 15,383	$ 7,568	203%	$ 6,571	$ 5,045	130%	$ 103,957	$ 109,636	95%	5%
16	Water-Wastewater Operator I	$ 35,589	$ 41,343	86%	$ 7,226	$ 3,225	224%	$ 3,059	$ 2,150	142%	$ 45,874	$ 46,718	98%	2%
17	Water-Wastewater Operator I	$ 45,427	$ 42,440	107%	$ 14,393	$ 3,310	435%	$ 3,913	$ 2,207	177%	$ 63,733	$ 47,957	133%	-33%
18	Water-Wastewater Operator II	$ 72,010	$ 49,123	147%	$ 7,828	$ 3,832	204%	$ 5,379	$ 2,554	211%	$ 85,217	$ 55,509	154%	-54%
19	Water-Wastewater Operator II	$ 53,622	$ 49,123	109%	$ 24,824	$ 3,832	648%	$ 4,481	$ 2,554	175%	$ 82,927	$ 55,509	149%	-49%
			Weighted Average	**96%**		**Weighted Average**	**339%**		**Weighted Average**	**137%**		**Weighted Average**	**108%**	**-8%**

Notes:

(1) Market midpoint for base compensation inflated by 13.0% (7.8% for health benefits and 5.2% for retirement benefits) based on latest BLS average (Q4 2021) for all civilian workers in service-providing industries

Attachment AG DR 1-41
Page 2 of 2
WSCK Market Position - Base Compensation 2022 vs. 2023

#	Position	Base Compensation						
		WSCK Base Compensation - 2022	WSCK Base Compensation - 2023	% Increase 2022 to 2023	Market Midpoint for Base Comp - 2022	WSCK % of Mkt Midpoint for Base Comp - 2022	Market Midpoint for Base Comp - 2023	WSCK % of Mkt Midpoint for Base Comp - 2023
1	Compliance Manager	$ 77,250	$ 77,250	0.0%	$ 105,880	73%	$ 107,606	72%
2	Dir. Engineering & Asset Management	$ 129,854	$ 137,762	6.1%	$ 159,048	82%	$ 161,640	85%
	Dir. Financial Planning & Analysis	$ 138,000	$ 138,000	0.0%	$ 165,600	83%	$ 168,299	82%
3	Field Tech I	$ 34,380	$ 39,146	13.9%	$ 42,495	81%	$ 43,141	91%
4	Field Tech I	$ 36,852	$ 39,146	6.2%	$ 40,853	90%	$ 41,474	94%
5	Field Tech I	$ 36,150	$ 43,056	19.1%	$ 42,495	85%	$ 43,141	100%
6	Field Tech I	$ 33,592	$ 39,146	16.5%	$ 42,495	79%	$ 43,141	91%
7	Field Tech I	$ 34,029	$ 39,146	15.0%	$ 42,495	80%	$ 43,141	91%
8	Financial Planning & Analysis Manager	$ 120,000	$ 127,308	6.1%	$ 124,132	97%	$ 126,155	101%
9	GIS Analyst	$ 67,600	$ 71,717	6.1%	$ 76,286	89%	$ 77,530	93%
10	KY Operations Apprentice	$ 31,200	$ 32,136	3.0%	$ 42,022	74%	$ 42,660	75%
11	Lead Water-Wastewater Operator	$ 53,560	$ 66,560	24.3%	$ 57,053	94%	$ 57,954	115%
12	Lead Water-Wastewater Operator	$ 65,952	$ 66,560	0.9%	$ 57,053	116%	$ 57,954	115%
14	Senior Vice President	$ 259,276	$ 259,276	0.0%	$ 285,304	91%	$ 289,954	89%
15	State Operations Manager	$ 82,003	$ 86,997	6.1%	$ 97,023	85%	$ 98,604	88%
16	Water-Wastewater Operator I	$ 35,589	$ 53,082	49.2%	$ 41,343	86%	$ 41,971	126%
17	Water-Wastewater Operator I	$ 45,427	$ 53,082	16.8%	$ 42,440	107%	$ 43,085	123%
18	Water-Wastewater Operator II	$ 72,010	$ 78,065	8.4%	$ 49,123	147%	$ 49,899	156%
19	Water-Wastewater Operator II	$ 53,622	$ 59,467	10.9%	$ 49,123	109%	$ 49,899	119%
					Weighted Average	**92%**	**Weighted Average**	**98%**

EXHIBIT ____ (RAF-30)

AG DR 1-66:

Provide the amount of incentive compensation expense pursuant to the each incentive compensation plan included in the test year revenue requirement for each target metric used for this plan during the test year. Separately provide the costs incurred directly by the Company and the costs incurred through affiliate charges from each affiliate. In addition, provide these amounts by O&M and/or A&G expense account and/or capital account.

Response: Please see Excel file PSC DR 1-49 Exhibit 18-32-29 - Schedule B - S&W-PR Taxes-Benefits CONFIDENTIAL.xlsx, 2023 test year tab, showing the dollar amount of incentive compensation on the deferred compensation lines under column U, which represents the EIP plan. Also, please see Excel file PSC DR 1-49 Exhibit 29 - Schedule C - 2023 CAM Forecast 2022-2025 – CONFIDENTIAL.xlsx, Excluded Costs Budget2023 tab for LTIP, EIP and other bonuses by department that have been excluded from the revenue request in this filing.

Witness: James Kilbane

EXHIBIT ____ (RAF-31)

AG DR 1-84:

Refer to the detailed account descriptions and data included in the Application, Exhibits 29.7 (Maintenance and Repair), 29.8 (Maintenance Testing), 29.9 (Chemicals) 29.10 (Transportation), 29.11 (Outside Services), 29.12 (Office Supplies and Other Expense), 29.14 (Pension and Other Benefits), 29.16 (Insurance Expense), 29.17 (Office Utilities), 29.18 (Miscellaneous Expense), and 29.22 (Taxes other than Income). Provide similar schedules for each which depict the same level of detail for each of the calendar years 2017 through 2021, for the base year, and for the test year.

Response: Please see Excel file AG DR 1-82 and 84 IS and DS.

Witness: James Kilbane

Pension & Other Benefits

Line No.	Account	Description	2017	2018	2019	2020	2021	Base Period *	Forecasted Period
1	531001	401K Profit Sharing	23,472	24,182	26,939	30,053	23,697	22,171	27,957
2	531002	401K Match	16,704	20,358	23,567	25,604	20,007	20,554	37,276
3	531100	RRSP Match	-	-	-	-	-	-	-
4	531200	Canada Pension Plan	-	-	-	-	-	-	-
5	532001	Health Admin and Stop Loss	22,872	24,293	26,197	31,803	27,623	29,353	29,353
6	532002	Dental	3,849	4,032	5,998	5,737	(1,521)	6,239	6,239
7	532003	Medical	-	-	-	-	-	-	-
8	532004	Medical Service Plan (MSP)	-	-	-	-	-	-	-
9	532005	Employee Insurance Deductions	(32,545)	(36,512)	(47,272)	(45,617)	(47,508)	(48,778)	-
10	532006	Health Insurance Claims	142,663	154,189	171,598	163,536	189,597	204,583	188,595
11	532007	Group Insurance	-	-	-	-	-	-	-
12	532008	Health Insurance	-	-	-	-	-	-	-
13	532009	Workers Compensation Insurance (WCB)	-	-	-	12,400	8,053	9,231	10,109
14	532010	Unemployment Insurance (EI)	-	-	-	-	-	-	-
15	532011	Union Dues	-	-	-	-	-	-	-
16	532012	Term Life Insurance	5,158	6,388	13,268	11,692	15,297	9,847	9,847
17	532013	Term Life Insurance Opt	(1,614)	(1,613)	(2,718)	(3,563)	(2,922)	(1,473)	(1,473)
18	532014	Depend Life Insurance Opt	(655)	(1,248)	(1,233)	(496)	-	-	-
19	532015	Vacation	-	-	-	-	-	-	-
20	532016	Education / Tuition	27	74	3,353	1,002	-	-	-
21	532017	Safety	-	-	-	-	-	-	-
22	532018	Longevity	-	-	-	-	-	-	-
23	532019	Incidental	-	-	-	-	-	-	-
24	532020	Holiday	-	-	-	-	-	-	-
25	532021	Jury Duty	-	-	-	-	-	-	-
26	532900	Other Employee Benefits	3,348	2,050	2,058	1,126	1,672	1,282	1,879
27	532999	Payroll Suspense	-	-	-	-	-	-	-
28		**Total Pension & Benefits - Water**	183,280	196,194	221,756	233,279	233,995	253,009	309,783

EXHIBIT ____ (RAF-32)

AG DR 1-97:

Refer to the Application, Exhibit 29.14, which shows among other things the pensions and other benefits expenses by account for the actual and estimated portions of the base year and for the test year.

a. Explain all reasons why the 401K Profit Sharing expense in account 531001 is projected to increase by approximately 26.1% ($5,786.34 increase/$22,170.94) from the base year to the test year.

b. Explain all reasons why the 401K Match expense in account 531002 is projected to increase by approximately 81.4% ($16,722.81 increase/$20,553.57) from the base year to the test year.

c. Explain all reasons why Employee Insurance Deductions expense in account 532005 is projected to be $0 in the test year, when the amount projected for the base year equals ($48,778.12), which is the equivalent of an increase in expenses of $48,778.12 in the test year.

d. Confirm that the Company does not participate in any defined pension and/or OPEB benefit plans. If not confirmed, explain since there are no specific accounts listed for those purposes.

Response:

a & b. The Base Period used to forecast the projected increase in 401K Profit Sharing and Match expenses includes 6 months actuals, which exclude the merit increase that occurred April 1, 2022, and the merit and wage adjustment increases that will be effective April 1, 2023. It also includes the difference caused by an employee not taking advantage of the full 401k match. Also, the Base Period actuals include various open positions during the first 6 months. Please see Excel file PSC DR 1-49 Exhibits 18-32-29 - Schedule B - S&W-Payroll Taxes-Benefits REDACTED for the formulas related to the Forecast Period.

c. The employee insurance deduction represents the amounts withheld from employee paychecks for health benefits, effectively an offset of the gross employer costs in account 532006. The Forecast Period was presented as the net employer cost, therefore only a net value was shown in account 532006.

d. The Company does not participate in defined benefit plans.

Witness: James Kilbane

EXHIBIT ____ (RAF-33)

AG DR 2-56:

Refer to the reflection of the proforma income statement in the Application, Exhibit 29. Refer also to the detailed account descriptions and data included in the Application, Exhibits 29.7 (Maintenance and Repair), 29.8 (Maintenance Testing), 29.9 (Chemicals) 29.10 (Transportation), 29.11 (Outside Services), 29.12 (Office Supplies and Other Expense), 29.14 (Pension and Other Benefits), 29.16 (Insurance Expense), 29.17 (Office Utilities), 29.18 (Miscellaneous Expense), and 29.22 (Taxes other than Income). Provide similar schedules for each exhibit noted above which depict the same level of account detail for the sum of 2022 revenues and expenses to date through the most recent month with actual data available. In addition, identify the most recent month with available data.

Response:

Please see Excel file AG DR 2-56 Expense details Aug YTD. The file shows expenses through August 2022.

Witness:

James Kilbane

Water Service Corporation of Kentucky

Case No. 2022-00147

Rate Case Schedules

Base Period: September 30, 2022

Forecast Period: December 31, 2023

Pension & Other Benefits

Line No.	Account	Description	Base Period - Actual
			[A]
1	531001	401K Profit Sharing	13,404.19
2	531002	401K Match	14,218.48
3	531100	RRSP Match	-
4	531200	Canada Pension Plan	-
5	532001	Health Admin and Stop Loss	18,214.43
6	532002	Dental	4,869.65
7	532003	Medical	-
8	532004	Medical Service Plan (MSP)	-
9	532005	Employee Insurance Deductions	(32,066.58)
10	532006	Health Insurance Claims	118,107.65
11	532007	Group Insurance	-
12	532008	Health Insurance	-
13	532009	Workers Compensation Insurance (WCB)	6,197.51
14	532010	Unemployment Insurance (EI)	-
15	532011	Union Dues	-
16	532012	Term Life Insurance	8,610.87
17	532013	Term Life Insurance Opt	(1,894.28)
18	532014	Depend Life Insurance Opt	-
19	532015	Vacation	-
20	532016	Education / Tuition	-
21	532017	Safety	-
22	532018	Longevity	-
23	532019	Incidental	-
24	532020	Holiday	-
25	532021	Jury Duty	-
26	532900	Other Employee Benefits	2,688.62
27	532999	Payroll Suspense	-
28		**Total Pension & Benefits - Water**	152,350.54

EXHIBIT ____ (RAF-34)

AG DR 2-58:

Refer to the public version of Excel file PSC_DR_1-49_Exhibits_18-32-29_-_Schedule_B_-_SW-Payroll_Taxes-Benefits_REDACTED attached to Water Service Kentucky's response to Staff's First Request, Item 49. Refer further to worksheet tab 2023 and further to cell AS1 which depicts an assumed increase in health insurance benefits cost of 6% over base year costs in order to project health insurance costs in the test year. Provide the weighted average actual annual increase percentages in health care premium costs each year starting in 2017 and going through 2022.

Response:

The compound annual growth rate from 2017 and 2022 was approximately 4.4%. This CAGR is artificially low due to the 2020 consolidation of the CRU (formerly Utilities Inc.) benefit plan into the CII benefits plan, which resulted in cost savings. Due to COVID impacts on healthcare cost and inflationary pressures the Company believes that 2023 will be similar if not greater than the most recent annual increase experienced from 2021 to 2022 of 8%.

Please see Excel AG DR 2-58 Medical Rates 2017 – 2022.xlsx for calculations.

Witness:

James Kilbane

EXHIBIT ____ (RAF-35)

AG DR 2-65:

Refer to the revised Attachment filed in response to the Attorney General's First Request, Item 41 on August 16, 2022. Refer further to the "WSCK Health Benefit Cost" column of the tab detailing 2022 compensation costs showing the Company's health benefit costs related to each employee for 2022.

a. Explain why the amounts for each employee in the "WSCK Health Benefit Cost" column are different and why some amounts are over three times the amount of others.

b. For each different amount listed, identify what type of coverage that is included (e.g. employee only, employee plus spouse, employee plus children, family, etc.).

c. For each different type of coverage identified in the response to subpart (b), identify the total amount of the coverage costs projected, and the costs projected to be paid for by the Company and the amount paid by the employee.

Response:

a. Employees have the option of different health care coverage including supplemental coverage and whether they elect to have coverage for employee only, employee plus spouse, employee plus children, or family coverage.

b and c. Please see Excel file AG DR 2-65 Health expense info. There are multiple options in health care offerings, some options include supplemental health insurance and different overall plans such as high deductible or PPO, that is why there will be several different rates for the same category of coverage.

Witness:

James Kilbane

Health coverage	Amount	Paid to insurance annually	Employee portion	Employer portion
Employee only	7,744	9,680	1,936	7,744
Employee only	7,226	9,033	1,807	7,226
Employee with Children	14,393	18,219	3,826	14,393
Employee with Children	14,027	17,756	3,729	14,027
Employee with Spouse and Children	26,893	34,042	7,149	26,893
Employee with Spouse	16,892	21,382	4,490	16,892
Employee with Spouse and Children	24,824	31,423	6,599	24,824
Employee with Spouse and Children	23,673	29,966	6,293	23,673
Employee with children	15,678	19,846	4,168	15,678
Employee with children	15,383	19,472	4,089	15,383
Employee only	7,828	9,785	1,957	7,828

EXHIBIT ____ (RAF-36)

AG DR 1-84:

Refer to the detailed account descriptions and data included in the Application, Exhibits 29.7 (Maintenance and Repair), 29.8 (Maintenance Testing), 29.9 (Chemicals) 29.10 (Transportation), 29.11 (Outside Services), 29.12 (Office Supplies and Other Expense), 29.14 (Pension and Other Benefits), 29.16 (Insurance Expense), 29.17 (Office Utilities), 29.18 (Miscellaneous Expense), and 29.22 (Taxes other than Income). Provide similar schedules for each which depict the same level of detail for each of the calendar years 2017 through 2021, for the base year, and for the test year.

Response: Please see Excel file AG DR 1-82 and 84 IS and DS.

Witness: James Kilbane

Outside Services

Line No.	Account	Description	2017	2018	2019	2020	2021	Base Period *	Forecasted Period
1	540100	Consulting	-	-	-	9	-	-	-
2	540200	Accounting and Audit	9,323	9,152	7,590	2,692	-	-	-
3	540300	Recruitment	-	-	-	-	-	-	-
4	540400	Legal	3,453	251	2,615	9,642	27,461	30,936	18,071
5	540500	Payroll	2,828	3,060	3,945	1,392	-	-	-
6	540600	Tax	6,295	7,159	5,398	6,885	-	-	-
7	540700	Engineering	-	1,500	-	-	-	-	-
8	540800	Temporary Labor	1,194	-	753	5,794	9	9	-
9	540900	Police	-	-	-	-	-	-	-
10	541000	Environmental	-	-	-	-	-	-	-
11	541100	Management Fee	-	119,263	139,506	420	-	-	-
12	541200	Contractor Outside Services	-	-	-	6,646	-	-	-
13	541300	Employee Finder Fees	76	800	46	1,115	-	-	-
14	549000	Other Outside Services	16,501	14,454	14,826	22,788	4,746	5,340	5,340
15									
16		Total Outside Servce - Water	39,671	155,639	174,679	57,383	32,216	36,285	23,411

EXHIBIT ____ (RAF-37)

AG DR 2-54:

Refer to Water Service Kentucky's response to the Attorney General's First Request, Item 80 in regard to the legal expenses in 2021 exceeding those in 2020 by approximately $20,000 due to "higher activity in increasingly complex legal matters." Refer also to Water Service Kentucky's response to the Attorney General's First Request, Items 82 and 84, and the Excel file AG_DR_1-82_ and_ 84_ IS_ and_ DS, and further to the worksheet tab Outside Service which shows large increases of legal expense in account 540400 in 2020 of over 300% and increases in 2021 of another nearly 300%.

a. Describe the "higher activity in increasingly complex legal matters" in more detail and whether those matters are projected to be recurring in nature in 2022 and 2023.

b. Provide copies of all legal bills used to record expenses in 2020 and in 2021.

c. Describe all legal matters that were new in both 2020 and 2021 compared to prior years.

d. Indicate whether any of the legal costs that were incurred during 2020 or 2021 related to the termination of the Clinton Wastewater contract. If so, provide a list of all such expenses by firm and year recorded.

e. Provide the amount of legal fee expenses in account 540400 recorded thus far in 2022 by month.

Response:

a. WSCK incurred legal expenses in 2021 and 2022 related to a personal-injury lawsuit and the termination of the Clinton wastewater contract. Although both of these matters have been resolved, utilities frequently have litigation and transactional legal expenses. In addition, WSCK incurred legal expenses related to regulatory services, property rights, the provision of service to customers. These types of legal issues are recurring.

b. Please see attached file, which has been redacted in order to protect attorney-client communications.

c. Please see response to a.

d. Please see response to a. The firm Sturgill, Turner, Barker, and Moloney incurred $4,794 in legal bills related to the Clinton wastewater contract.

e. Please see below for 2022 legal expenses by month

Accounts	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	Jul-2022	Aug-2022
540400 - Legal	$ (3,969)	$ -	$ -	$ -	$ 10,423	$ 138	$ -	$ 18,561

Witness: James Kilbane

EXHIBIT ____ (RAF-38)

AG DR 1-27:

Refer to the Whitney Testimony, page 13.

a. Explain in detail why the Company no longer contractually provides wastewater services for Clinton.

b. Mr. Whitney asserts that Water Service Kentucky wants to appropriately balance reliable service and affordable rates for the customers. Explain in detail how filing for three large rates cases since 2018 will allow for affordable rates.

c. Based upon the most recent United States Census information, the poverty rates for the Company's service area are as follows:

Hickman County – 20.9%

Bell County – 29.8%.2

Confirm that Water Service Kentucky is aware of the extreme poverty that exists in its service territory.

Response:

a. WSCK and the City of Clinton, mutually agreed to terminate the contract effective December 31, 2021, because the wastewater services contract was set to expire on March 3, 2022.

b. WSCK's focus on maintaining reliable utility service requires it to make infrastructure investments, employ qualified employees, and expend other necessary capital to ensure effective provision of utility service. These capital investments and payment of competitive wages increase WSCK's costs of water service, which require rate increases. Ever conscious of the need to provide cost-effective rates, WSCK balances the need for reliability and affordability through careful asset planning, management, and cost control. WSCK is aware of this Census data.

WSCK also notes that it sought a low-income rate for its customers in the last rate case. The Attorney General opposed WSCK's proposed low-income rate.

Witness: Seth Whitney

EXHIBIT ____ (RAF-39)

AG DR 1-81:

Refer to the Whitney Testimony, page 13, regarding no longer providing wastewater services for Clinton as of December 31, 2021.

a. Provide the amount of revenue and expenses related to these services for each of the years 2018 through 2021 by account number.

b. Indicate whether there was any reduction in staffing or other operating expenses related to no longer providing such services. If none, explain the response in detail.

c. Explain why such services are no longer contractually provided and describe in more detail the services that had been provided.

d. Provide a copy of the expired contract related to these services.

Response:

a. WSCK did not track all data for the Clinton Wastewater expenses with account numbers. Instead, WSCK tracked those costs by flagging costs specifically identified for that contract. The company has provided a list of these expenses by year with an approximate category of expense and revenue in Excel file AG DR 1-81 Clinton wastewater.xlsx.

b. Please refer to PSC DR 2-7 for details of reduction of expenses related to WSCK no longer providing these services. WSCK staff has not been reduced, but expenses related to outside services have been reduced.

c. As the contract was set to expire on March 3, 2022, WSCK and the City of Clinton mutually agreed to terminate the contract effective December 31, 2021. WSCK had provided operations, maintenance, billing, and collections services to Clinton.

d. Please see attached AG 1-81 d – Clinton Wastewater Operations Contract w 2002 Addendum.pdf.

Witness: James Kilbane and Seth Whitney

Activity	2018	2019	2020	2021	Category
Billy Nelms	1,800	6,000	6,600	7,200	Outside Services
Bio Chem Ind.	11,436	10,135	9,909	8,143	Chemicals
Car Quest	138	25			Transportation
Champion Plumbing	1,848	2,320	1,295	1,800	Outside Services
Clinton Hardware	100	1,065	124	147	Materials and supplies
Credit		(724)			Misc Expenses
Cummins	826				Outside Services
Danny Pruett				4,500	Outside Services
Direct Labor and Benefits	33,069	38,821	28,573	31,133	Salaries and benefits
ERA	92	184			Outside Services
Fouser Environmental Services	1,350				Outside Services
G&C Supply	313		565	414	Materials and supplies
Jim's Auto Parts #382969			17		Transportation
Kentucky Utilities - Lagoon	10,000	15,029	13,829	10,854	Utilies
Kentucky Utilities - Lift Station	5,094	5,036	5,766	4,573	Utilies
Lemonx Enterprises		1,344			Maintenance
McCoy & McCoy Laboratories Inc.	7,614	12,762			Testing
Midwest Meter		1,150			Maintenance
Office Expenses (phone, computer, fax lines, etc)	1,800	1,800	1,800	1,800	Office Expense
Pace Analytical			12,572	14,268	Testing
Ray Farms	1,000	500	600		Maintenance
Roto Rooter		90			Outside Service
Shawnee Professional Services	1,500				Outside Service
Shay Oil				423	Transportation
Transportation Expense	3,300	3,300	3,300	3,300	Transportation
USA Bluebook		516			Maintenance
USA Bluebook	514	428	128		Maintenance
Vaughn	3,081				Travel
Grand Total	84,875	99,782	85,078	88,555	

Revenue associated with Clinton Wastewater Contract	118,021	144,929	116,580	137,505	

EXHIBIT ____ (RAF-40)

PSC DR 2-7:

Refer to the Whitney Testimony, page 13.

a. Provide the loss revenue from the termination of the wastewater services for Clinton.

b. Provide an itemized list of reduced expenses that resulted from the termination for the wastewater services for Clinton.

Response:

a. The total revenue WSCK received from the Clinton wastewater contract in 2021 was $137,505.

b. Please see below. WSCK incurred the below costs in 2021 but will not incur the same costs in 2022 due to the termination of the Clinton Wastewater Contract.

Maintenance	3,591
Outside services	7,200
Utilities	15,427
Testing	14,268
Chemicals	8,143
Total	48,629

Witness: James Kilbane

EXHIBIT ____ (RAF-41)

Case No. 2022-00147
Water Service Corporation of Kentucky
Responses to Attorney General First Request for Information

AG DR 1-94:

Refer to the Application, Exhibit 29.7, which shows among other things the maintenance & repair expenses by account for the actual and estimated portions of the base year. Refer to the amounts for the following accounts for the actual first six months of the base year and for the projected second six months of the base year. For each listed account, explain all known reasons why the expense amount is so much greater in the projected last six months of the base year than in the first six months of the base year that included actual amounts.

	Account	Base Year Actuals First Six Months	Base Year Projected 2nd Six Months	Increase Amount
a.	512002	$2,608.18	$8,762.82	$6,154.64
b.	512003	$695.40	$3,355.60	$2,660.20
c.	512014	$978.65	$5,115.35	$4,136.70
d.	512022	$0	$7,950.00	$7,950.00
e.	512900	$10,467.58	$22,821.07	$12,353.49
f.	513900	$4,573.63	$8,860.11	$4,286.48

Response:

For all Base Period expenses shown, the projected Base Period total is based on a normalized annual expense level, regardless of actual activity reflected, as these expenses do not necessarily incur evenly over a given 12-month period.

a. Annual forecast based on 2021 actual spending

b. Annual forecast based on average of 2020 and 2021 actual spending

c. Annual forecast based on average of 2020 and 2021 actual spending

d. This is a City of Clinton wastewater expense and the total of $7,950 should be removed from the revenue requirement, it will not be incurred in 2022 or going forward.

e. Annual forecast based on average 2020 and 2021 actual spending. $3,296 should be removed from the revenue requirement due to being related to Clinton Wastewater expenses that will not be incurred in the base period nor the future test year.

f. Annual forecast based on average 2020 and 2021 actual spending. $295 should be removed from the revenue requirement due to being related to Clinton Wastewater expenses that will not be incurred in the Base Period nor the Forecast Period.

Witness: James Kilbane

AG DR 2-42:

Refer to Water Service Kentucky's response to the Staff's Second Request, Item 7, and the responses to the Attorney General's First Request, Items 81 (including attachment) and 94 in regard to Clinton Wastewater costs incurred in 2021 that will no longer be incurred due to the termination of the Clinton Wastewater contract termination.

a. The response to the Attorney General's First Request, Item 94 indicates three separate maintenance and repair expenses that should be removed from the revenue requirement, $7,950 in account 512022, $3,296 in account 512900, and $295.00 in account 513900. Provide a list of these and all other amounts, separated by account, that should be removed from the projected test year expenses related to the Clinton Wastewater contract expenses that will no longer be incurred. b.
b. Refer to the list of expenses associated with the Clinton Wastewater contract expenses each year 2018 through 2021 provided in the attachment response to the Attorney General's First Request, Item 81. For each of the expense amounts listed for 2021, indicate whether the amount associated with that expense was removed (or otherwise not included) from the projected test year expenses in the filing. If removed, reference the account number and description in which the expense reduction was reflected. If not removed, identify the account number, account description, and amount associated with that expense and provide an explanation as to why the associated amount was not removed from the projected expenses.

c. The list of 2021 expenses provided in response to the Staff 's Second Request, Item 7 sums to $48,629, while the list of 2021 expenses provided in response to the Attorney General's First Request, Item 81 sums to $88,555. Provide a reconciliation of the two sets of expenses including explanations for each individual expense related to each difference. Include in the explanations whether the 2021 incurred expense is expected to reoccur after the end of 2021 and why.

d. Refer to the list of expenses associated with the Clinton Wastewater contract expenses each year 2018 through 2021 provided in the attachment response to the Attorney General's First Request, Item 81 and further to the amount for 2021 of $31,133 for salaries and benefits. Describe this amount in regard to which employee(s) performed such services and the approximate hours involved that are no longer required. In addition, describe the functions now performed by this employee(s) now that the work related to the Clinton Wastewater contract is no longer needed.

Response:

a.

Should be removed from 2023 test year	
Account	Dollars
512022	7950
512900	3296
513900	295

b. Please see Excel AG DR 2-42 tab b.

c. Please see Excel AG DR 2-42 tab c. The labor and benefits, office expense, and transportation cost listed on the spreadsheet are expected to continue after 2021 because they are fixed costs which are not subject to change due to the cancellation of the Clinton Wastewater contract.

d. The 2 Clinton employees Ronald Rushing and Chris Cannon did the majority of work with the Clinton wastewater contract; they worked approximately 860 hours on Clinton wastewater. These employees are now spending their time maintaining and repairing the water system.

Witness:

James Kilbane

EXHIBIT ____ (RAF-42)

AG DR 2-64:

Refer to the Excel file PSC DR 1-50 Fuel Cost Estimated attached to Water Service Kentucky's response to Staff's First Request, Item 50, and further to the use of the average per gallon price of $3.92 as of May 5, 2022, utilized to project the cost of fuel expense in the test year. Provide the most current per gallon price of gas at the stations utilized by the Company and the date in which the price is determined.

Response:

The recent purchases of vehicle fuel as of 9/21/2022 at local stations was $2.96 regular and $4.79 diesel. Assuming 80% of all gas purchased for the Kentucky operations uses regular gasoline and the 2 service trucks and backhoes use diesel, this fuel price would be $3.33 as a blended rate. Please see attached Excel AG DR 2-64 Fuel Cost Estimated for most recent estimate.

Witness:

Colby Wilson / James Kilbane

EXHIBIT ____ (RAF-43)

Commission Staff 1-12:

Provide the following information concerning the costs for the preparation of this case:

a. A detailed schedule of expenses incurred to date for the following categories:

(1) Accounting;

(2) Engineering;

(3) Legal;

(4) Consultants; and

(5) Other Expenses (Identify separately).

b. For each category identified in Item 14.a., the schedule should include the date of each transaction, check number or other document reference, the vendor, the hours worked, the rates per hour, amount, a description of the services performed, and the account number in which the expenditure was recorded. Provide copies of contracts or other documentation that support charges incurred in the preparation of this case. Identify any costs incurred for this case that occurred during the base period.

c. An itemized estimate of the total cost to be incurred for this case. Expenses should be broken down into the same categories as identified in Item 14(a), with an estimate of the hours to be worked and the rates per hour. Include a detailed explanation of how the estimate was determined, along with all supporting workpapers and calculations.

d. Provide monthly updates of the actual costs incurred in conjunction with this rate case, reported in the manner requested in Items 14.a. and 14.b., and a cumulative total of cost incurred to date for each category. Updates will be due when the utility files its monthly financial statements with the Commission, through the month of the public hearing.

Response:

Please see Excel file "PSC DR 1-12 – Rate Case Expenses;" please also see attached supporting documentation "PSC DR 1-12 – Rate Case expenses" below.

Supplemental Response (7/28/22):

Please see Excel file "PSC DR 1-12 – Rate Case Expenses July Supplement;" please also see attached additional supporting documentation below.

Supplemental Response (8/29/22):

Please see Excel file "PSC DR 1-12 – Rate Case Expenses August Supplement;" please also see attached additional supporting documentation below.

Witness:

James Kilbane

DR 12 c.

Water Service Corporation of Kentucky

Rate Case Expense

Base Year (Per Books) Ended September 30, 2022

Future Test Year Ended December 31, 2023

	A	B	C	D	E	F	G		
Line No.					**Total**	**Incurred**	**Remaining**	**Average Hourly Rate**	**Estimated Hours to be Worked**
1	Legal Fees (Ice Miller)				$ 200,000	$ 8,302	$ 191,698	413	484
2	Legal Fees (Strugill Turner)				158,875	12,473	146,402	254	625
3	Customer Notices (2 notices):								
4	Postage	12,324 =		customers x $0.5125	6,316	0	6,316		
5	Stock	12,324 =		notices x .1025	1,263	0	1,263		
6									
7	Fed Ex, mailings, postage, and miscellaneous costs				1,000	0	1,000		
8									
9				# of Trips/					
10		Personnel	Cost	Nights					
11	Travel **								
12	Airfare	3	500	1	1,500	0	1,500		
13	Hotel	4	249	2	1,992	0	1,992		
14	Meals/Parking	4	65	2	520	0	520		
15									
16									
17	External Consultants (Salary Survey)				37,000	37,000	0	208	178
18	External Consultants (ROE - Scott Madden)				22,500	22,500	0	208	108
19	External Consultants (CAM-Pat Baryenbruch)				28,350	24,728	3,622	315	90
20									
21	Total Cost of current case - estimated cost to complete				459,316				
22									
23	Total Current Rate Case Cost				459,316				
24									
25	Unamortized Rate Case Expense from prior Rate Cases approved				0				
26									
27	Total				459,316				
28									
29	Amortized over 3 years				3				
30									
31									
32	**Amortization Expense per year**				$ 153,105				

* Will update with actual costs once invoices are received.

** Travel expected may be cancelled due to Covid-19

EXHIBIT ____ (RAF-44)

AG DR 1-73:

Refer to the summary of depreciation expense found in the Application, Exhibit 29.19.

a. Provide the workpapers associated with this exhibit in electronic format with all formulas in place used to derive the forecast period amounts by account. If already provided, cite to the file name and worksheet tab location.

b. Explain why there are large increase adjustments to computer equipment accounts 710504 and 710602 if the longer Commission authorized service lives are being utilized to compute expense.

Response:

a. Please see Excel file PSC DR 1-49 Exhibits 10-20-28 - Schedule A - Rate Base Components.xlsx.

b. Please see attached updated Excel file Exhibits 10-20-28 Schedule A – Rate Base Components Updated 7.28.22. This file corrects the depreciation expense calculation for Exhibit 28 Schedule A, which inadvertently multiplied depreciation rates times the UPIS Balance column for the Forecast Period, but now multiplies the depreciation rate times the UPIS net of WSC Allocations.

Witness: James Kilbane

Depreciation Expense

		Base Period					Forecast Period			
Account	Description	Depreciation Rate	UPIS Balance, Base Period at 9/30/2022	Less: WSC Allocated Assets	UPIS net of WSC Allocations	Depreciation, Base Period at 9/30/2022	UPIS Balance, Forecast Period at 12/31/2023	Less: WSC Allocated Assets	UPIS net of WSC Allocations	Depreciation, Forecast Period at 12/31/2023
710201	Dep - Organization	4.00%	164,394	-	164,394	6,576	164,394	-	164,394	6,576
710203	Dep - Struct and Improv General Plant	2.67%	132,274	-	132,274	3,532	133,490	-	133,490	3,564
710205	Dep - Struct and Improv Water Treat Plt	2.67%	523,111	-	523,111	13,967	523,203	-	523,203	13,970
710206	Dep - Struct and Improv Trans Dist Plt	2.67%	4,028	-	4,028	108	6,328	-	6,328	169
710211	Dep - Struct and Improv Reclaim Wtr Dist	2.67%	128,346	-	128,346	3,427	128,346	-	128,346	3,427
710220	Dep - Struct and Improv Office	2.67%	159,811	(78,736)	81,074	2,165	159,811	(78,736)	81,074	2,165
710223	Dep - Wells and Springs	3.33%	477,485	-	477,485	15,900	477,485	-	477,485	15,900
710225	Dep - Supply Mains	1.60%	21,861	-	21,861	350	30,522	-	30,522	488
710227	Dep - Electric Pump Equip Src Pump	5.00%	44,744	-	44,744	2,237	45,187	-	45,187	2,259
710228	Dep - Electric Pump Equip WTP	5.00%	825,487	-	825,487	41,274	828,313	-	828,313	41,416
710229	Dep - Electric Pump Equip Trans Dist	5.00%	19,816	-	19,816	991	26,216	-	26,216	1,311
710230	Dep - Water Treatment Equipment	3.64%	1,186,327	-	1,186,327	43,182	1,187,708	-	1,187,708	43,233
710231	Dep - Dist Resv and Standpipes	2.22%	545,392	-	545,392	12,108	545,553	-	545,553	12,111
710232	Dep - Trans and Distr Mains	1.60%	3,717,686	-	3,717,686	59,483	4,291,713	-	4,291,713	68,667
710233	Dep - Service Lines	2.50%	1,173,587	-	1,173,587	29,340	1,220,359	-	1,220,359	30,509
710234	Dep - Meters	2.25%	791,326	-	791,326	17,805	1,077,917	-	1,077,917	24,253
710235	Dep - Meter Installations	2.22%	701,871	-	701,871	15,582	703,264	-	703,264	15,612
710236	Dep - Hydrants	1.90%	504,829	-	504,829	9,592	519,942	-	519,942	9,879
710237	Dep - Backflow Prevention Devices	2.50%	548	-	548	14	867	-	867	22
710269	Dep - Other and Misc Equip WTP	2.86%	338	-	338	10	595	-	595	17
710274	Dep - Other Plant Treatment	2.86%	83	-	83	2	83	-	83	2
710278	Dep - Plant Alloc	2.86%	69,976	-	69,976	2,001	69,976	-	69,976	2,001
710299	Dep - Land	0.00%	20,044	-	20,044	-	20,044	-	20,044	-
710303	Dep - Office Furniture	4.22%	126,197	(55,931)	70,267	2,965	126,197	(55,931)	70,267	2,965
710305	Dep - Stores Equipment	5.00%	1,856	(46)	1,810	91	1,856	(46)	1,810	91
710306	Dep - Lab Equipment	5.71%	109,983	-	109,983	6,280	115,083	-	115,083	6,571
710308	Dep - Tool Shop Equipment	5.43%	347,515	(477)	347,038	18,844	348,886	(477)	348,409	18,919
710309	Dep - Power Operated Equipment	7.20%	100,872	-	100,872	7,263	164,535	-	164,535	11,847
710310	Dep - Communications Equipment	9.00%	137,398	(8,148)	129,250	11,632	202,382	(8,148)	194,234	17,481
710401	Dep - Vehicles	12.86%	479,403	(1,152)	478,251	61,503	497,110	(1,152)	495,958	63,780
710501	Dep - Computer Hardware	4.44%	162	(162)	-	-	162	(162)	-	-
710502	Dep - Desktop/Laptop Computers	4.44%	3,655	(3,655)	-	-	3,655	(3,655)	-	-
710503	Dep - Mainframe Computers	4.44%	24,730	(24,730)	-	-	24,730	(24,730)	-	-
710504	Dep - Mini Comp Wtr	4.44%	267,293	(222,929)	44,364	1,970	267,942	(222,929)	45,013	1,999
710601	Dep - Computer Software	4.44%	24,077	(24,077)	-	-	24,077	(24,077)	-	-
710602	Dep - Comp Systems	4.44%	781,142	(735,654)	45,489	2,020	781,142	(735,654)	45,489	2,020
710603	Dep - Micro Systems	4.44%	16,031	(12,794)	3,237	144	16,031	(12,794)	3,237	144
	Total Depreciation Expense		13,633,676	(1,168,491)	12,465,185	392,355	14,735,105	(1,168,491)	13,566,613	423,367

Accumulated Deferred Income Taxes

		Base Period				Forecast Period			
Account	Description	Starting Balance 9/30/2021	2021 Provision Adjustment	Book/Tax Depreciation Change, * Tax Rate	Ended 9/30/2022	Starting Balance 12/31/2022	Book/Tax Depreciation Change, * Tax Rate	13-Month Average	Ended 12/31/2023
255001	Deferred Federal Tax Liabilities	(780,357)	(111,217)	(12,984)	(904,558)	(908,527)	(14,891)	(915,857)	(923,417)
255002	Deferred State Tax Liabilities	62,038	(27,824)	(3,254)	30,960	29,965	(3,732)	28,128	26,233

EXHIBIT ____ (RAF-45)

AG DR 2-45:

Refer to Water Service Kentucky's response to the Attorney General's First Request, Items 86 and 87, and Excel file AG DR 1-87 Bad Debt history.

a. Provide an expanded version of the Excel table in cell rows 14-20 based on the format requested by the Commission Staff showing the beginning and ending bad debt reserve amounts and including all activity to include 2017, 2018, 2019, and 2022 activity through June 2022.

b. Provide the amount of total service revenue for each month in 2022 and summed for the first six months of 2022.

Response:

Please see Excel file AG DR 2-45 Bad debt history and their respective tabs.

Witness:

James Kilbane

	2017	2018	2019	2020	2021	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Bad debt reserve Beg. Bal.	(57,100)	(49,862)	(56,134)	(28,989)	(99,257)	(307,399)	(306,896)	(312,281)	(217,315)	(188,882)	(186,740)
Bad debt expense	45,687	48,619	59,480	96,792	202,899	8,256	(3,113)	31,626	(16,623)	62,742	(41,261)
Bad Debt Recapture											
Bad Debt ending balance	(49,862)	(56,134)	(28,989)	(99,257)	(307,399)	(306,896)	(312,281)	(217,315)	(188,882)	(186,740)	(188,613)
Total Revenue	2,655,132	2,647,250	2,939,374	2,922,906	3,406,420						
Sewer revenue	177,741	118,021	144,929	116,580	137,505						
Percenatage of bad debt	1.84%	1.92%	2.13%	3.45%	6.21%						

Staff Data Request 1-13 Bad Debt Reserve and Expense WSCKY

	A. Reserve account balance at the beginning of the year	B. Charges to the reserve account (accounts charged off);	C. Credits to reserve account;	D. Current year provision;	E. Reserve account balance at the end of the year; and	F. Percent of provision to total revenue.	Total Revenue
2017	(57,100)	52,924	7,238	45,687	(49,862)	1.84%	2,477,391
2018	(49,862)	42,348	(6,271)	48,619	(56,134)	1.92%	2,529,229
2019	(56,134)	86,624	27,144	59,480	(28,989)	2.13%	$ 2,794,771
2020	(28,989)	26,525	(70,267)	96,792	(99,257)	3.45%	$ 2,806,326
2021	(99,257)	(5,244)	(208,142)	202,899	(307,399)	6.21%	$ 3,268,915

	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	1st 6 months	Jul-2022	Aug-2022	
Revenue	302,948	258,488	266,976	250,560	276,386	266,924	1,622,282	275,891	278,116	

AG_DR_2-45_Bad_debt_history
Item 2

EXHIBIT ____ (RAF-46)

AG DR 2-51:

Refer to the Application generally. Provide a copy(ies) of all internal policies and procedures in place related to the recordation of bad debt expense.

Response:

Please see attached.

Witness:

James Kilbane

Allowance for Doubtful Accounts
(updated July 2011)

Accounts receivable are reported in the financial statements at net realizable value which is equal to the gross amount of accounts receivable less an estimated allowance for doubtful accounts.

Two common procedures of accounting for bad debts are the direct write-off method and the allowance method. The weakness of the direct write-off method is that bad debt expense is not matched with the related revenues and that accounts receivable are overstated because no attempt is made to account for the unknown bad debts included in accounts receivable. The direct method is not acceptable under GAAP.

The Company uses the allowance method, whereby a percentage of ending accounts receivable is estimated to eventually prove uncollectible even though the specific uncollectible receivables cannot be identified. When specific accounts are written off, they are charged to the allowance account, which is periodically recomputed. In practice, customer accounts are only written-off after a final bill is issued upon service termination and outstanding for 210 days (180 days past due).

Beginning in 2009 (and following the conversion to JD Edwards and CC&B), the Company enhanced its estimation techniques establishing unique percentages to all outstanding balances based on their aging. Previously, an allowance was only provided on balances that had aged greater than 90 days. In addition, an allowance is now calculated for all companies, whereas this had previously only been done for "availability" accounts. Availability accounts are those where customers have water service available to them but have not yet begun to actually use water. Even though the customers may not use any water, they are billed a monthly base charge. This situation is typical where land has been purchased for later development.

Since past due balances are not written off until they have aged 210 days, the allowance percentages applied to each aging category cannot effectively be traced into historical records. In order to gain comfort with these percentage, the Company has conducted a comprehensive evaluation of the overall allowance for doubtful accounts which included the following:

> *Compare bad debt expense to write-offs.* Bad debt expense recorded in a specific year implies the necessity for write-offs during that year and subsequent years. While it is unrealistic to expect estimated bad debt expense to perfectly match actual write-offs in a given year, it is reasonable to expect the ratio of bad debt expense to write-offs to be close to 1.0 over an extended period.
>
> *Compare beginning allowance for doubtful accounts to write-offs.* This ratio is computed each year using the beginning-of-year allowance for doubtful accounts as the numerator and write-offs of accounts receivable during the year as the denominator. The beginning allowance-allowance-

to-write-off ratio indicates how adequately the allowance accommodated subsequent write-offs.

Assess the allowance exhaustion rate. Exhaustion rates indicate the time (expressed in years) taken to use the beginning-of-year allowance in the form of actual write-offs

Based on this evaluation, the Company has determined that the allowance for doubtful accounts is adequately stated.

EXHIBIT ____ (RAF-47)

AG DR 2-52:

Refer to the Application generally. Describe any changes made to the Company's policy on past due accounts resulting from the ramifications of Covid-19 involving such things as delays in disconnections and collections, or debt forgiveness.

Response:

These were the actions taken in Kentucky related to COVID-19:

03/11/2020 - Suspended all collections and severance activities in Kentucky.

01/06/2021 – Per Kentucky Order, all Kentucky customers with delinquent debt were automatically placed on a 24-month deferred payment arrangement to assist customers with paying their utility bills.

10/30/2021 – Resumed all collection and severance activities in Kentucky.

Witness:

James Kilbane

EXHIBIT ____ (RAF-48)

AG DR 2-47:

Refer to the Application generally. Provide the Company's accounts receivable aging balances at the end of each year 2017 through 2021 and through June 2022 divided into categories 0 – 30 days, 31 – 60 days, 61 – 90 days, 91 – 120 days, and over 120 days.

Response:

The company does not keep track or separate AR balances by some of the above categories, but has readily available a report that contains 0-30, 31-60, 61-90, 91-180, and 180+ days outstanding. Please see attached file AG DR 2-47 AR Aging.xlsx.

Witness: James Kilbane

	0-30 Days Old	31-60 Days Old	61-90 Days Old	91-180 Days Old	181+ Days Old	Loan & PA Cur Bal
12/31/2017	282,999	47,326	13,529	25,876	61,321	3,057
12/31/2018	222,310	49,398	15,777	26,296	68,764	3,812
12/31/2019	300,235	61,172	27,645	50,257	44,998	8,874
12/31/2020	353,446	86,066	58,607	125,442	182,770	14,997
12/31/2021	365,016	108,370	66,793	168,031	430,319	373,326
1/31/2022	419,950	143,950	74,390	154,152	454,090	367,893
2/28/2022	376,553	160,375	98,108	154,260	446,542	335,905
3/31/2022	314,022	117,883	95,433	147,661	286,105	276,872
4/30/2022	315,024	93,406	62,173	133,593	253,005	250,184
5/31/2022	276,908	92,568	54,158	143,476	250,289	236,362
6/30/2022	311,859	81,710	60,186	115,691	257,648	220,455

EXHIBIT ____ (RAF-49)

AG DR 2-66:

Refer to the Excel attachment entitled "PSC_DR_1-49_Exhibit_35_-_Schedule_A_-_Cost_of_Capital_Summary_v2' provided in response to the Staff's First Request, Item 49 and to Water Service Kentucky's response to the Attorney General's First Request, Item 89.

a. Provide an update as to whether any plans have changed in regard to the payoff of the $80 million revolver balance and the issuance of two $50 million debt issuances on October 1, 2022, with projected interest rates of 4.05% and 4.30%. Detail any possible or known changes to any of the projected amounts or interest rates.

b. Provide the current interest rate and balance of the $80 million revolver.

Response: Please see attached Excel file AG DR 2-66 Exhibit_35_-_Schedule_A_-_Cost_of_Capital_Summary_Update.xlsx. This file updates the Forecast Period and Base Period capital structures and inputs based on recent activity. Included in this file is updated actual balances and rates as of 8/31/2022. The new issuance dated 6/27/2022 of $50 million requires a draw of the remaining $25 million on the note within one year.

Witness: James Kilbane

Exhibit 35, Schedule A

Water Service Corporation of Kentucky
Docket No. 2022-00147
Cost of Capital Summary

Line No.	Description	Capitalization Ratio	Rate Base	Embedded Cost	Weighted Cost Rate
13-Month Average Forecast Period, as of December 31, 2023					
1	Debt	49.85%	3,888,057	4.65%	2.32%
2	Equity	50.15%	3,842,646	10.60%	5.32%
3	Total	100.00%	$7,730,703		7.64%
Base Period, as of September 30, 2022					
4	Debt	49.90%	3,807,422	4.75%	2.37%
5	Equity	50.10%	3,807,422	10.60%	5.31%
6	Total	100.00%	$7,614,844		7.68%
Forecast Period, as of December 31, 2023					
7	Debt	49.91%	3,965,664	4.58%	2.28%
8	Equity	50.09%	3,979,629	10.60%	5.31%
9	Total	100.00%	$7,945,293		7.59%

Interest Synchronization

		13-Mo. Avg., Forecast Period	End of Base Period	End of Forecast Period
10	Rate Base	$7,730,703	$7,614,844	$7,945,293
11	Weighted Cost of Debt	2.32%	2.37%	2.28%
12	Interest Expense	$179,352	$180,339	$181,480

AFFIDAVIT

STATE OF GEORGIA)

COUNTY OF FULTON)

RANDY A. FUTRAL, being duly sworn, deposes and states: that the attached is his sworn testimony and that the statements contained are true and correct to the best of his knowledge, information and belief.

Randy A. Futral

Sworn to and subscribed before me on this 13th day of October 2022.

Notary Public

JESSICA K INMAN
MY COMMISSION EXPIRES
NOTARY
PUBLIC
JULY 31, 2023
CHEROKEE COUNTY, GEORGIA