COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:	**)**	
	)	
THE APPLICATION OF KENTUCKY-AMERICAN	**)**	**CASE NO. 2017-00313**
WATER COMPANY FOR A QUALIFIED	**)**	
INFRASTRUCTURE PROGRAM RIDER	**)**	

DIRECT TESTIMONY OF LINDA C. BRIDWELL, P.E.

Q. Please state your name and business address.

A. My name is Linda C. Bridwell and my business address is 2300 Richmond Road, Lexington, Kentucky 40502.

Q. By whom are you employed and in what capacity?

A. I am employed by American Water Works Service Company, Inc., ("AWWSC" or "Service Company") as Senior Manager of Rates and Regulation for Kentucky-American Water Company ("KAWC" or "Company") and Tennessee-American Water Company.

Q. Have you previously filed testimony before this or any other commission?

A. Yes. I have provided both written and oral testimony in at least sixteen different proceedings before the Kentucky Public Service Commission ("Commission") including rate cases, special investigations, and applications for a Certificate of Public Convenience and Necessity. I have also provided both written and oral testimony before the Tennessee Public Utility Commission.

Q. Please state your educational and professional background.

A. I received a B.S. degree in Civil Engineering from the University of Kentucky in 1988 and I received an M.S. degree in Civil Engineering from the University of Kentucky in 1992 with an emphasis in water resources. I completed a Masters of Business Administration from Xavier University in Cincinnati, Ohio in 2000. I am a registered Professional Engineer in the Commonwealth of Kentucky.

I began my career with American Water Works Company, Inc. ("American Water") in 1989, as a distribution supervisor for KAWC in 1989. In 1990, I was promoted to Planning Engineer, then Engineering Manager, and later Director of Engineering in 1998. In July 2004, I accepted the position of Project Delivery and

Developer Services Manager for the Southeast Region of American Water, responsible for Kentucky, Tennessee, and West Virginia. In 2008, I became the KAWC Project Delivery Manager for the construction of a new water treatment plant, booster station, and transmission main in Kentucky. At the time, this project was the largest project completed by American Water, in any of its regulated businesses, at $164 million. Upon completion of the project in 2010, I became the Director of Environmental Compliance and Water Quality for KAWC, and in 2012, I accepted the role of Manager of Rates and Regulation for Kentucky and Tennessee. In November 2016, I was promoted to my current position.

I am an active member of the American Water Works Association ("AWWA"), served as president of the local chapter and state section of the American Society of Civil Engineering ("ASCE"), and served as an officer in the local chapter of the National Society of Professional Engineers ("NSPE") and as a State officer. I have served periodically as an Adjunct Professor at the University of Kentucky in the Civil Engineering Department, teaching "Water Quality and Pollution Control" and "Introduction to Environmental Engineering." I served as a member of the Civil Engineering Industrial Advisory Committee at the University of Kentucky from 2005 until 2012. I served as a Commissioner on the Kentucky Water Resources Development Commission established by Governor Patton, and on the Kentucky Board of Licensure for Professional Engineers and Land Surveyors. I currently serve as Vice Chairman of the Board of Directors for the Kentucky Infrastructure Authority.

Q. What are your duties as Senior Manager of Rates and Regulation?

A. I am responsible for the coordination of regulatory issues in Kentucky and Tennessee. This includes coordinating all reports and filings, working with our regulatory staff to make sure that all information produced addresses the requirements or requests, and overseeing the preparation and filing of rate cases and tariff changes. I work with the senior management in both states on planning matters. I am also responsible for keeping abreast of changes and trends in regulation across the United States that may impact our local operations. I report to the Presidents of KAWC and Tennessee American Water Company ("TAWC"). I am located in Kentucky, but work closely with the staff in Tennessee as well.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support KAWC's Application to adopt a Qualified Infrastructure Program ("QIP") rider, which is a tariff rate adjustment rider for the replacement of aging infrastructure.

Q. What topics will your testimony address?

A. My testimony will 1) review KAWC's proposed QIP rider; 2) explain how the QIP rider is calculated and applied to customer billing; 3) review in general the exhibits and schedules that support the proposed QIP rider; and 4) review the proposed new tariffs.

Q. Please discuss the financial impact of the proposed QIP rider?

A. The Company's proposed QIP rider would produce additional annual revenues of approximately $1,663,356 for 2018. This represents an increase to the average residential customer of $0.71 per month, or 1.91 % on the average residential customer bill.

Q. When did the Company last increase rates?

A. The Company last filed for a rate increase on January 29, 2016. By Commission Order dated August 23, 2016, the Commission approved rates effective August 28, 2016. None of the infrastructure included in the proposed QIP is in the Company's existing base rates.

Q. Were the Company's financial exhibits prepared by you or under your supervision?

A. Yes.

Q. What is the source of information used in the Company's financial exhibits?

The information contained in the Exhibits and Schedules filed with KAWC's Application was obtained from KAWC's financial and operational records, including its books of account and business records.

QIP

Q. Please explain why KAWC is proposing the adoption of a QIP rider.

A. The proposed QIP is a tariff rate rider that suports the replacement of aging infrastructure. The cost of infrastructure replacement is substantial. As discussed in the testimony of Mr. O'Neill, KAWC's infrastructure replacement needs are significant now, and are expected to grow in the coming decades. A surcharge mechanism mitigates the significant adverse revenue impact of regulatory lag. Without the QIP, the Company will suffer earnings erosion as capital costs of infrastrucuture replacement work that is providing service to ratepayers goes unrecovered until the completion of a general rate proceeding to recover the return of and on these ongoing investments. The QIP is an important component of the Company's efforts to replace its aging infrastructure in a fiscally prudent manner by supporting an accelerating rate of infrastructure replacements,

while moderating future rate increases on customers. KAWC is proposing an initial QIP to support $8.3 million in net capital plant additions.

Q. Please explain how the adoption of a QIP supports the Company's efforts to replace its aging infrastructure in a fiscally prudent manner while moderating future rate increases on customers.

A. From the perspective of long-term sustainable customer service and pricing, KAWC's goal is to continue providing high quality water and wastewater service in the most cost-effective way through the replacement, operation, maintenance, and rehabilitation of assets for present and future customers. As Mr. O'Neill explains, ideally, KAWC's investment level for infrastructure replacements and rehabilitation should be adequate to keep pace with the anticipated remaining useful life of the infrastructure. The Company, however, is currently replacing its distribution system infrastructure on an approximately 500 year cycle. The amount of the QIP eligible investment will increase gradually over time to sustain the required trajectory of the Company's replacement program. Approval of the QIP rider will allow the Company to recover on a timelier basis the costs associated with qualified, non-revenue producing investment and provide for smaller, more gradual increases to customers' bills as the on-going plant investment is made, rather than the larger rate increases associated with base rate cases where the Company's plant investments are recognized in a single, lump sum basis.

Q. Why is it important for the Company to receive a timely return on QIP investments to replace aging infrastructure?

A. While American Water always ensures that each of its water utilities is afforded access to capital to provide safe, adequate, and reliable service, investment funding is not limitless.

QIP investments are directed at infrastructure replacement programs (e.g., pipelines) and do not apply to new main extension projects that would partially pay for themselves through revenue production from connecting new customers. As explained by Mr. O'Neill, however, KAWC is looking to reach and maintain a more optimal level of infrastructure investment. KAWC's current regulatory structure, however, does not keep up with ongoing trajectory of its planned capital expenditures, and this discourages expenditures in Kentucky verses alternative investments available to American Water in other states. A QIP will provide more timely cost recovery of investments made in an ongoing manner, without incurring regulatory lag by waiting to lump together a cumulative series of investments for episodic rate case filings.

Q. Are there direct benefits to the customers and other stakeholders from the institution of a QIP rider?

A. Yes. As explained further by Mr. O'Neill, the value of the accelerated infrastructure replacement supported by a QIP is substantial, benefiting customers today and well into the future with:

- improved water quality, which enhances public health
- increased water pressure, which provides greater fire protection and protects water quality
- fewer main breaks and service interruptions
- reduced maintenance and energy costs,[1]
- and more cost-effective service and pricing in the long run for our customers.

The need for infrastructure renewal is expected to grow with time, so

[1] The U.S. Department of Energy recognized the benefit of investment recovery reforms such as infrastructure surcharges in a 2015 report on energy productivity. It states that "investment recovery reform can help accelerate the replacement of aging leaking water mains, thus reducing energy waste. These regulatory reforms will ultimately minimize energy costs and reduce carbon emission related to water and wastewater services." U.S. Department of Energy. *Accelerate Energy Productivity 2030: A Strategic Roadmap for American Energy Innovation, Economic Growth, and Competitiveness.* p 71. Prepared by Keyser, D.; Mayernik, J., M.; McMillan, C. of National Renewable Energy Laboratory; Agan, J.; Kempkey, N.; Zweig, J. of U.S. Department of Energy (2015).

delaying investment would not only be ill advised, it would also unfairly burden the next generation of customers. As noted previously, implementing the QIP rider will result in more predictable and timely recovery of costs, which will, in turn, improve the ability to attract the capital necessary to carry out an infrastructure replacement program that supports the continued provision of quality and reliable service for the long-term benefit of our customers. The best way to ensure that optimal levels of capital are consistently available is through predictable and timely recovery of investments and the return on capital devoted to serving customers' needs. The QIP proposal also will provide the customer with more gradual rate increases over time rather than face the steeper percentage increase that would otherwise occur in a single rate case. Given the level of investment that is necessary and ongoing, without a QIP mechanism in place, the customer would face more frequent rate cases and the costs associated with those cases.

Not only will customers benefit, but the State, as a whole, would benefit from the QIP. Jobs in water utilities are accessible to workers with a range of educational and training backgrounds, and offer opportunities for workforce development and advancement. Contractors, too, will hire Kentuckians to support the infrastructure replacement funded by the QIP. According to a 2008 study undertaken by the Clean Water Council, between 16 and 27 jobs are created for every $1 million spent on water and wastewater infrastructure.[2] The jobs created are not just in the construction industry, but also jobs in supporting fields such as architecture, engineering, industrial machinery, and truck transport.

[2] Clean Water Council, "*Sudden Impact: An Assessment of Short Term Economic Impacts of Water and Wastewater Construction Projects in the United States*," 2008.

Q. What additional evidence have you found that supports the positive economic impact of KAWC's proposed QIP?

A. There are many studies that show that increased spending on infrastructure investments produces positive economic development results. In a study released in 2012 on the economic impact of under-investing in our water and wastewater infrastructure, the American Society of Civil Engineers estimated that remaining on the current track will cost American businesses $734 billion in sales between now and 2020, and cumulative loss to our gross domestic product ("GDP") will be $416 billion, directly due to deteriorating water infrastructure. A modest increase in investment would prevent 700,000 job losses and avoid personal income losses of $541 billion.[3] Additionally, according to the U.S. Conference of Mayors, every dollar invested in water infrastructure adds $6.35 to the national economy.[4]

Additional studies show further economic benefit in infrastructure investment. Recent United States Environmental Protection Agency surveys tallied a 20-year need of over $650 billion for needed water and sewer infrastructure improvement projects. This would create between 10.5 and 17.5 million jobs over 20 years or 525,000 – 875,000 jobs annually. That annual creation of jobs would be enough to annually employ one third of our nation's 1.8 million annual bachelor degree graduates.[5]

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[3] American Society of Civil Engineers, *"Failure to Act – The Impact of Current Infrastructure Investment on America's Economic Future"*, accessed November 2015, https://www.asce.org/uploadedFiles/Issues_and_Advocacy/Our_Initiatives/Infrastructure/Content_Pieces/failure-to-act-economic-impact-summary-report.pdf

[4] U.S. Conference of Mayors, "*Local Government Investment in Municipal Water and Sewer Infrastructure: Adding Value to the National Economy*", issued August 14, 2008. Accessed November 2015, http://www.usmayors.org/urbanwater/documents/LocalGovt%20InvtInMunicipalWaterandSewerInfrastructure.pdf

[5] U.S. Department of Education, National Center for Education Statistics. Accessed November 2015, http://nces.ed.gov/fastfacts/display.asp?id=372

All of the above cited statistics would hold true for infrastructure investment in the Central Kentucky area and the Commonwealth of Kentucky. Not only would the increase in needed infrastructure investment in KAWC infrastructure maintain and improve service reliability, it would benefit the local economy as well. An improved water distribution system and the resulting customer benefits noted above can also attract new business to the area and support economic development goals.

Q. Did KAWC file for a similar mechanism in Case No. 2012-00520?

A. Yes, KAWC requested approval of a Distribution System Improvement Charge, or "DSIC," in Case No. 2012-00520. The PSC denied the DSIC in its Final Order in Case No. 2012-00520.

Q. What has changed since KAWC requested the DSIC in Case No. 2012-00520?

A. Mr. O'Neill discusses in his testimony that KAWC completed a multiple method, comprehensive assessment of its water distribution system. He shows that KAWC has a multi-decade-long ongoing need to replace its aging infrastructure, and the rate at which existing infrastructure is reaching its useful life continues to increase at a quicker pace than the work to replace the outdated mains. Expecting the distribution system infrastructure to continue to provide service long beyond its anticipated useful life generally results in higher levels of service failures and disruptions to customers. KAWC has developed a detailed main replacement program that prioritizes distribution system improvement projects as part of the Company's overall capital program. This program is based on past performance and a qualitative assessment of the value of the improvements in terms of water quality, flow capacity, and service reliability with consideration given

to the potential for coordination with street paving work. This program is discussed further in Mr. O'Neill's direct testimony in this case.

Q. In Case No. 2012-00520, the PSC expressed concern that the estimated impact of the accelerated replacement of the mains was overstated because KAWC had been filing for general rate increases every two years. Please address that issue.

A. As I mentioned above, all other things remaining equal,[6] a QIP would decrease the frequency of KAWC's general rate case filings. The experience of KAWC's sister companies that have implemented infrastructure replacement tariff riders is instructive.

- Pennsylvania-American Water Company's ("PAWC") infrastructure replacement tariff rider was first approved in 1996. In the ten years from 1987-1996, PAWC filed 7 rate cases. PAWC has filed 8 rate cases in the 21 years since its program was authorized.
- Indiana-American Water Company's ("INAWC") infrastructure replacement tariff rider was first approved in 2000. In the ten years from 1990–1999, INAWC filed 6 rate cases. INAWC has filed 5 rate cases in the 17 years since its program was authorized, the last in 2014.
- Missouri-American Water Company's ("MAWC") infrastructure replacement tariff rider was first approved in 2003 and only for the portion of its system located in Saint Louis County. In the ten years from 1994 – 2003, MAWC did not file combined rate cases for its entire system, but filed Saint Louis County separately and filed 7 rate cases. MAWC is required to file a rate case no later than three years after the initial

[6] Obviously, there will be infrastructure improvements that would not be covered under the QIP Rider, and the magnitude and/or timing of those improvements and expenses will affect the amount of time between general rate case filings.

filing of an infrastructure replacement tariff rider upon completion of the most recent general rate case.

- Illinois-American Water Company's ("ILAWC") QIP was first authorized in 2004 on a limited basis, and for all of ILAWC in 2011. In the ten years from 1995 – 2004, ILAWC filed 4 rate cases. ILAWC filed 4 rate cases in the 13 years since its program was first initiated.
- New York-American Water Company's ("NYAWC") infrastructure replacement tariff rider was first approved in 2008. In the ten years from 1999 – 2008, NYAWC filed 3 rate cases. NYAWC filed 2 rate cases in the 9 years since its program was authorized.
- New Jersey-American Water Company's ("NJAWC") infrastructure replacement tariff rider was first approved in 2012. In the ten years from 2003 – 2012, NJAWC filed 5 rate cases. NJAWC has filed 1 rate case in the 5 years since its program was authorized.
- Tennessee-American Water Company ("TAWC") received its last general rate case order from the TPUC in October 2012. Prior to that time, TAWC filed general rate cases every 18 months to two years. TAWC filed its first alternative regulatory method filing in October of 2013, which was approved in April of 2014. Since its riders have been put in place in Tennessee, TAWC has not filed for a general rate increase.

An increase in time between general rate case filings results in less regulatory expense and time for all parties involved – regulators, intervenors, as well as KAWC and its customers. This would be a win-win for all stakeholders.

Q. Did KAWC file for a similar mechanism in Case No. 2015-00418, its most recent rate case?

A. Yes, KAWC requested approval of a QIP in Case No. 2015-00418. KAWC withdrew that request as part of a settlement agreement with all parties in the case, which agreement states that the withdrawal of the QIP request does not preclude KAWC from seeking approval of QIP or any other similar infrastrucature replacement regulatory mechanism in the future.

Q. Has the need for the QIP changed since KAWC requested the QIP rider in Case No. 2015-00418?

A. No. The significant need for accelerated infrastructure has not changed since the conclusion of 2015-00418. KAWC has used the intervening period to review other riders and mechanisms used by gas companies in Kentucky, programs utilized in other states, and its own proposed infrastructure replacements. KAWC believes that the case for an infrastructure surcharge program such as a DSIC or a QIP is as serious or even more compelling than it was in the last rate case.

Q. You indicated that infrastructure replacement surcharge mechanisms are being used in more states. What other states have adopted tariff riders similar to KAWC's proposed QIP?

A. American Water is aware of twenty (20) states that have approved infrastructure surcharge mechanisms. That's nearly 40 percent of all states that regulate water.[7] Although the mechanisms employed in these other states may go by a different name,

[7] AZ, CT, DE, IA, IL, IN, ME, MO, NV, NH, NJ, NY, NC, OH, PA, RI, TN, TX, VA, WV have surcharge provisions either enacted or enabled within their laws. ND, SD, MN, MI, and GA are states where public utility commissions do not supervise the economic regulation of water.

(e.g. the Illinois rider is referred to as Qualified Infrastructure Plant ("QIP"), the Indiana rider is referred to as Distribution System Improvement Charge ("DSIC"), and the Missouri rider is referred to as Infrastructure System Replacement Surcharge ("ISRS")), they are similarly defined and share the same objectives.

Q. Can you point to additional evidence about how other public utility commissions view infrastructure replacement surcharge mechanisms?

A. Yes, I can. The growing popularity of infrastructure surcharge programs is not a surprise. The National Association of Regulatory Utility Commissioners ("NARUC") passed a "Best Practices" resolution in 2005, identifying distribution system improvement charges as a mechanism that can "help ensure sustainable practices in promoting needed capital investment and cost-effective rates."[8] NARUC further reinforced its support for this kind of innovative mechanism at its November 2013 resolution on 'alternative regulation.'[9] In this resolution, NARUC emphasizes the "important role of innovative regulatory policies and mechanisms in facilitating the efforts of water and wastewater utilities to address their significant infrastructure investment challenges." The resolution goes on to state that "alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs." Both resolutions describe many of the issues laid out above – namely, the need for extraordinary infrastructure replacement, the non-revenue producing nature of the

[8] National Association of Regulatory Utility Commissioners, *Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices,"* 2005.
[9] *Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21st Century for Water and Wastewater Utilities***,** 2013,

investment, and the need to assist utilities in tackling these problems while helping customers manage costs. And both NARUC resolutions expressly encourage commissions to adopt an infrastructure surcharge mechanism as a means to provide regulatory incentives to needed capital investment in infrastructure replacement. (*See* Exhibit LCB-1 for the full text of the NARUC's 2013 and 2005 resolutions.)

Q. Please describe the categories of utility plant that would qualify for inclusion in the Company's proposed QIP.

A. The specific utility plant categories proposed for inclusion in the QIP are: (1) Account 331, Transmission and Distribution Mains, including valves; (2) Account 333, Services; (3) Account 334, Meters and Meter Installations; (4) Account 335, Hydrants; and (5) Account 311, Pumping Equipment. There may be other appropriate utility plants related to qualified infrastructure replacement that could be considered for inclusion in the future; however, these are the primary accounts at this time. The above would include main extensions to eliminate dead ends and the unreimbursed costs associated with relocations of mains, services, and hydrants occasioned by street or highway construction. Mains installed to provide service to new customers would not be included in the QIP.

Q. Please discuss the general operation of the proposed QIP rider.

A. The QIP rider is a regulatory tool to provide for the recovery of the costs of capital, depreciation, and property tax (return on and return of) associated with qualified infrastructure investment between base rate case filings. The QIP rider will apply only to qualified, non-revenue producing plant investment that has not been included in rate base in a prior base rate case proceeding. The QIP surcharge would be established on an

annual prospective basis and would reflect only those qualified plant additions installed after the conclusion of the initial forecasted test year after the Commission's final order in its last base rate case proceeding. The qualified plant additions would be reduced by the projected retirements associated with the QIP eligible additions in the calculation of applicable depreciation and property tax expense. The QIP rider would cover the upcoming calendar year and would be updated each subsequent year.

The Company would make its annual QIP filing establishing the applicable QIP no later than October 1 prior to the effective date of January 1 of each QIP implementation. The first filing would also cover any time period between the end of the last forecasted test year and the upcoming calendar year. The Company's proposed QIP also includes an annual reconciliation filing made not later 90 days after the conclusion of each QIP year. That filing would include a detailed listing of each qualifying QIP project completed and placed in service to the Company's customers during the immediately preceding QIP year. The Company would then calculate the applicable QIP revenue requirement based on the QIP formula utilizing the actual completed QIP-eligible projects. The Commission would review all aspects of the reconciliation filing including verification that the included projects are QIP eligible and the prudence of the projects. Based on its review, the Commission would make any necessary adjustments to the Company's calculated revenue requirement.

The final revenue requirement as determined by the Commission will be compared to the actual QIP revenues collected under the rider in effect for the preceding QIP year. Any over or under recovery of QIP revenue is included in the calculation of the next adjustment to the QIP. Ultimately, the QIP reflects only actual projects completed

and placed in service. The QIP would be cumulative and remain in place until reset at zero at the conclusion of the Company's next base rate case proceeding, at which point the capital costs, property tax, and depreciation previously recovered through the QIP are then subsumed within base rates.

Q. How will the QIP revenue be recovered?

A. The QIP would be expressed as a flat monthly amount for each meter in each customer class and would be applied prior to the inclusion of any other surcharge or tax. The QIP would be reflected as a line item on each customer's bill. The QIP would not apply to public or private fire customers.

Q. What will happen to the QIP Rider upon approval of new rates in a rate case proceeding?

A. The QIP Rider will be reset to zero as of the effective date of the new base rates, which base rates then provide for the recovery of the annual costs that had theretofore been recovered through the QIP. Thereafter, only the new QIP eligible plant additions not previously included in rate base and base rates will be reflected in the future QIP filings.

Q. What cost of capital will be utilized in the QIP formula?

A. The cost of capital will be the approved overall rate of return (on a pre-tax basis) established by the Commission in the Company's most recent rate case.

Q. What depreciation rates will be used to determine the depreciation expense to be recovered by the QIP?

A. The depreciation rates last approved by the Commission, for the respective plant accounts in which the specific items of QIP-eligible plant are recorded, would be used to determine the depreciation expense.

Q. Could the amount of QIP revenue collected from KAWC's customers vary from the actual amount of revenue needed to cover a return of and a return on the Company's QIP infrastructure investment and taxes?

A. Yes. This could occur as a result of a difference between the actual and the allowed water operating revenues upon which the QIP is based.

Q. Does the QIP rider include a reconciliation mechanism for the protection of the Company's customers in the event that the level of revenue varies from the actual costs?

A. Yes. As discussed earlier, the QIP rider will be subject to an annual reconciliation whereby the revenue received under the QIP for the reconciliation period will be compared to the revenue necessary for the Company to recover its return of and return on investment plus taxes, for that QIP year. Any over or under recovery will be included in the calculation of the next adjustment to the QIP surcharge.

Q. Has KAWC proposed a specific forecasted QIP amount for approval in this case?

A. Yes, we have. The amount of the QIP requested herein would be applied at the beginning of 2018 for the calendar year and would cover investment for 2018. KAWC would then make a filing with the Commission during the first quarter of 2019 to reconcile its actual capital expenditures with the forecasted capital expenditures.

Q. Why has KAWC proposed this QIP rider outside of a general rate case?

A. Infrastructure replacement is a critical issue for all of KAWC customers. By proposing this outside of a general rate case, all stakeholders have the opportunity to review and ask questions regarding the QIP rider and how it works, without the many other issues that are under review during a rate case. The Commission has the plenary authority to

approve this QIP rider outside of a general rate case, and the critical nature of the looming infrastructure issue for all water providers in Kentucky necessitates a proceeding to focus on how those investments can be funded appropriately.

Tariff

Q. What new tariff is the Company proposing?

A. KAWC is proposing only a new QIP Rider tariff. A copy of the proposed tariff sheet is attached as Exhibit LCB - 2.

Q. What do you recommend?

A. The need for the replacement of water infrastructure is growing and will not be resolved without action. In order to provide the financial ability to fund the infrastructure investment at an appropriate level well into the future, I recommend the Commission approve the implementation of the QIP Rider as proposed in this filing.

Q. Does this conclude your direct testimony?

A. Yes.

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF FAYETTE)

The undersigned, **Linda C. Bridwell**, being duly sworn, deposes and says she is the Senior Manager of Rates and Regulation for Kentucky-American Water Company, that she has personal knowledge of the matters set forth in the foregoing testimony, and the answers contained therein are true and correct to the best of her information, knowledge, and belief.

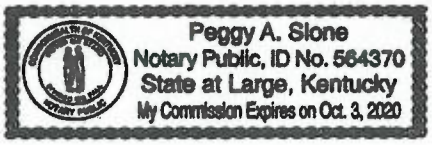
Linda C. Bridwell

LINDA C. BRIDWELL

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 3rd day of August, 2017.

Peggy A. Slone (SEAL)
Notary Public

My Commission Expires:
10/3/2020



Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21st Century for Water and Wastewater Utilities

WHEREAS, Through the *Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices"* (2005), the National Association of Regulatory Utility Commissioners (NARUC) has previously recognized the important role of innovative regulatory policies and mechanisms in facilitating the efforts of water and wastewater utilities to address their significant infrastructure investment challenges; *and*

WHEREAS, Traditional cost of service ratemaking, which has worked reasonably well in the past for water and wastewater utilities, no longer adequately addresses the challenges of today and tomorrow. Revenue, driven by declining use per customer, is flat to decreasing, while the nature of investment (rate base) has shifted largely from plant needed for serving new customers to non-revenue producing infrastructure replacement and compliance with new drinking water standards; *and*

WHEREAS, The traditional cost of service model is not well adapted to a no/low growth, high investment utility environment and is unlikely to encourage the necessary future investment in infrastructure replacement; *and*

WHEREAS, Compared to the water and wastewater industry, the electric and natural gas delivery industries have in place a larger number and a greater variety of alternative regulation policies, such as multiyear rate plans and rate stabilization programs, and those set forth in the 2005 Resolution; *and*

WHEREAS, The U.S. water industry is the most capital intensive sector of regulated utilities and faces critical investment needs that are expected to total $335 billion to $1 trillion over the next quarter century, as noted in the *American Society of Civil Engineers 2013 Report Card for America's Infrastructure*; *and*

WHEREAS, Tap water is physically ingested and the quality of the service must be maintained to protect the health and economic well-being of communities across our Nation and comply with current and future regulations covering the control of a number of contaminants from nitrosamines to chromium, at a cost estimated at $42 billion by the EPA as part of their April 2013 Report to Congress; *and*

WHEREAS, Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times; *now, therefore be it*

RESOLVED, That the National Association of Regulatory Utility Commissioners, convened at its 125th Annual Meeting in Orlando, Florida, supports consideration of alternative regulation plans and mechanisms along with and in addition to the policies and mechanisms outlined in the

Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices" adopted by the NARUC Board of Directors on July 27, 2005; *and be it further*

RESOLVED, That the Committee on Water stands ready to assist economic regulators with implementation of alternative regulatory approaches that support water companies' capital investment needs of the 21st century.

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Sponsored by the Committee on Water
Recommended by the NARUC Board of Directors November 19, 2013
Adopted by the NARUC Committee of the Whole November 20, 2013.

Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices"

WHEREAS, A number of innovative regulatory policies and mechanisms have been implemented by public utility commissions throughout the United States which have contributed to the ability of the water industry to effectively meet water quality and infrastructure challenges; *and*

WHEREAS, The capacity of such policies and mechanism to facilitate resolution of these challenges in appropriate circumstances supports identification of such policies and mechanisms as "best practices"; *and*

WHEREAS, During a recent educational dialogue, the "2005 NAWC Water Policy Forum," held among representatives from the water industry, State economic regulators, and State and federal drinking water program administrators, participants discussed (consensus was not sought nor determined) and identified over 30 innovative policies and mechanisms that have been summarized in a report of the Forum to be available on the website of the Committee on Water at www.naruc.org; *and*

WHEREAS, As public utility commissions continue to grapple with finding solutions to meet the myriad water and wastewater industry challenges, the Committee on Water hereby acknowledges the Forum's *Summary Report* as a starting point in a commission's review of available and proven regulatory mechanisms whenever additional regulatory policies and mechanisms are being considered; *and*

WHEREAS, To meet the challenges of the water and wastewater industry which may face a combined capital investment requirement nearing one trillion dollars over a 20-year period, the following policies and mechanisms were identified to help ensure sustainable practices in promoting needed capital investment and cost-effective rates: a) the use of prospectively relevant test years; b) the distribution system improvement charge; c) construction work in progress; d) pass-through adjustments; e) staff-assisted rate cases; f) consolidation to achieve economies of scale; g) acquisition adjustment policies to promote consolidation and elimination of non-viable systems; h) a streamlined rate case process; i) mediation and settlement procedures; j) defined timeframes for rate cases; k) integrated water resource management; l) a fair return on capital investment; *and* m) improved communications with ratepayers and stakeholders; *and*

WHEREAS, Due to the massive capital investment required to meet current and future water quality and infrastructure requirements, adequately adjusting allowed equity returns to recognize industry risk in order to provide a fair return on invested capital was recognized as crucial; *and*

WHEREAS, In light of the possibility that rate increases necessary to remediate aging infrastructure to comply with increasing water quality standards could aversely affect the affordability of water service to some customers, the following were identified as best practices to address these concerns: a) rate case phase-ins; b) innovative payment arrangements; c) allowing the consolidation of rates ("Single Tariff Pricing") of a multi-divisional water utility to spread capital costs over a larger base of customers; *and* d) targeted customer assistance programs; *and*

WHEREAS, Small water company viability issues continue to be a challenge for regulators, drinking water program administrators and the water industry; best practices identified by Forum participants include: a) stakeholder collaboration; b) a memoranda of understanding among relevant

State agencies and health departments; c) condemnation and receivership authority; and d) capacity development planning; *and*

WHEREAS, The U.S. Environmental Protection Agency's "Four-Pillar Approach" was discussed as yet another best practice essential for water and wastewater systems to sustain a robust and sustainable infrastructure to comprehensively ensure safe drinking water and clean wastewater, including: a) better management at the local or facility level; b) full-cost pricing; c) water efficiency or water conservation; *and* d) adopting the watershed approach, all of which economic regulators can help promote; *and*

WHEREAS, State drinking water program administrators emphasized the following mechanisms which Forum participants identified as best practices: a) active and effective security programs; b) interagency coordination to assist with new water quality regulation development and implementation, such as a memorandum of understanding; c) expanded technical assistance for small water systems; d) data system modernization to improve data reliability; e) effective administration and oversight of the Drinking Water State Revolving Fund to maximize infrastructure remediation, along with permitting investor owned water companies access in all States; f) the move from source water assessment to actual protection; *and* g) providing State drinking water programs with adequate resources to carry out their mandates; *now therefore be it*

RESOLVED, That the National Association of Regulatory Utility Commissioners (NARUC), convened in its July 2005 Summer Meetings in Austin, Texas, conceptually supports review and consideration of the innovative regulatory policies and practices identified herein as "best practices;" *and be it further*

RESOLVED, That NARUC recommends that economic regulators consider and adopt as many as appropriate of the regulatory mechanisms identified herein as best practices; *and be it further*

RESOLVED, That the Committee on Water stands ready to assist economic regulators with implementation of any of the best practices set forth within this Resolution.

Sponsored by the Committee on Water
Adopted by the NARUC Board of Directors July 27, 2005

P.S.C.Ky.No.6

Cover Sheet and Original Sheets:

Nos. 5, 7, 8, 14 through 19, 20.1, 21, 24.1, 26, 29 through 49, 58, 58.6, 59, 63, 64, and Appendix A;

First Revised Sheet Nos. 2, 4, 6, 9, 10, 11, 12, 13, 24, 25, 28, 51, 53.1, 54, 58.4, 60, 61, 62, 65;

Second Revised Sheet Nos. 2, 22, 23, 50.3, 57, 58.3, 58.5;

Third Revised Sheet No. 27, 50.1, 50.2, 56, 58.1, 58.2;

Fourth Revised Sheet No. 55;

Fifth Revised Sheet Nos. 3.1, 20;

Sixth Revised Sheet No. 52.1;

Eighth Revised Sheet Nos. 28.1, 28.2;

Fourteenth Revised Sheet No. 3;

Sixteenth Revised Sheet No. 55.1;

Twenty-Eighth Revised Sheet No. 53;

Thirty-First Revised Sheet No. 52;

Thirty-Fourth Revised Sheet No. 50

KENTUCKY-AMERICAN WATER COMPANY
2300 RICHMOND ROAD, LEXINGTON, KENTUCKY
http://www.amwater.com/kyaw
FOR SERVICE IN KENTUCKY COUNTIES OF
BOURBON, CLARK, FAYETTE, GALLATIN, GRANT, HARRISON, JESSAMINE, OWEN, SCOTT AND WOODFORD
FILED WITH THE PUBLIC SERVICE COMMISSION OF KENTUCKY

ISSUED: August 4, 2017
EFFECTIVE: January 1, 2018

ISSUED BY: /s/Nick O. Rowe
Nick O. Rowe, President
2300 Richmond Road, Lexington, KY 40502

QIP RIDER
QUALIFIED INFRASTRUCTURE PROGRAM RIDER

APPLICABLE SERVICE AREA

(N) Applicable to the entire Service Territory of Kentucky American Water Company.

APPLICABILITY OF RIDER

(N) Applicable to Residential, Commercial, Industrial, Other Public Authority and Sales
(N) for Resale customers.

CALCULATION OF QUALIFIED INFRASTRUCTURE PROGRAM RIDER REVENUE REQUIREMENT

(N) The QIP Rider Revenue Requirement includes the following:

(N) a. QIP-related Plant In-Service not included in base water rates minus the associated
(N) QIP-related accumulated depreciation and accumulated deferred income taxes;
(N) b. Retirement and removal of plant related to QIP construction;
(N) c. The rate of return on the net rate base is the overall rate of return on capital
(N) authorized in the Company's latest base water rate case, grossed up for federal
(N) and state income taxes;
(N) d. Depreciation expense on the QIP- = related Plant In-Service less retirement and
(N) removals;
(N) e. Property taxes related to the QIP; and
(N) f. Reduction for any savings in maintenance of mains.,

RATES

(N) All customers subject to this QIP Rider receiving metered water service shall be
(N) assessed a monthly charge in addition to the Meter Charge component of their
(N) applicable rate schedule that will enable the Company to complete the Qualified Infrastructure Program.
(N)
(N) The QIP Rider will be updated annually in order to reflect the expected impact on
(N) the Company's revenue requirements of forecasted net plant additions and
(N) subsequently adjusted to true-up the actual costs with the projected costs. A filing
(N) to update the projected costs for the upcoming calendar year will be submitted

(N) Indicates New Rate and Requirements

(N) annually by October 1 to become effective with customer billing on and after the
(N) first billing cycle in January. The allocation of the program costs shall be based on
(N) the revenue distribution approved by the Commission in the last general rate case.
(N) Company will submit a balancing adjustment annually by March 31 to true-up the
(N) actual costs, as offset by operations and maintenance expense reductions, during the
(N) most recent twelve months ended December with the projected program costs for
(N) the same period. The balancing adjustment true-up to the rider will become
(N) effective with meter readings on and after the first billing cycle of June.
(N)
(N) The monthly QIP Rider charges for the respective water service classifications
(N) effective on and after January 1, 2018 are:

(N)	Residential	$0.71
(N)	Commercial	$4.01
(N)	Industrial	$82.98
(N)	Other Public Authorities	$13.31
(N)	Sales for Resale	$126.84

(N) Indicates New Rate and Requirements

ISSUED: **August 4, 2017**
EFFECTIVE: **January 1, 2018**

ISSUED BY: **/s/ Nick O. Rowe**
Nick O. Rowe
President
2300 Richmond Road, Lexington, KY 40502