KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2020-00027
COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Witness: Kurt Stafford

1. Refer to the Direct Testimony of Kurt A. Stafford (Stafford Testimony), page 11, line 6, through page 12, line 2, regarding work associated with Line D – Mains Relocated.

a. Explain why municipal or state agencies do not bear the $500,000 estimated cost of relocating existing Kentucky-American water mains if the relocation is required because of municipal or state agency projects.

b. Provide a detailed description of the "improvements being proposed by a municipal or state agency."

Response:

Line D – Mains Relocated includes the relocation of existing water mains, including valves and other appurtenances, which are necessary due to ongoing municipal or state agency projects.

a. Most of KAWC's buried infrastructure is located within public rights-of-way. Municipal or state agencies, such as the Kentucky Transportation Cabinet, do not bear the cost of relocating Kentucky-American water mains, or any utilities, when these agencies' projects require utilities to relocate infrastructure that are within public rights-of-way rather than dedicated utility easements. Municipal or state agencies allow utilities to install buried infrastructure within their public rights-of-way with the understanding that the utilities will bear the cost of relocations when maintenance or construction projects impact buried infrastructure.

b. "Improvements being proposed by a municipal or state agency" may include road widening, storm drainage improvements, traffic signals, streetscapes, etc. These projects often impact KAWC's infrastructure because of their location in public rights-of-way. Typically, these improvements include some form of excavation which impacts buried infrastructure. KAWC holds regular coordination meetings with municipal and state agencies such as the Kentucky Transportation Cabinet and the Lexington-Fayette Urban County Government to ensure improvement projects are as successful and cost-effective as possible for all stakeholders.

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2. Refer to the Stafford Testimony, page 3, lines 14–15, and Exhibit 1. Provide a copy of all Strategic Capital Expenditure Plans developed by Kentucky-American since 2015.

Response:

Please see the attached Excel file which contains the Strategic Capital Expenditure Plans from 2015 to 2019.

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3. Refer to Stafford Testimony, page 8, line 17, through page 9, line 28. For each of the four projects detailed, provide the expected date that construction will begin, the projected date the construction will be completed, and the final cost of each project.

Response:

The estimated construction start and completion dates for the four phased projects have been determined using historical construction trends and site specific conditions. Even given this information, the estimated construction start and completion dates may vary based on a number of factors, including but not limited to, weather, the availability of construction materials and permitting delays. The current schedule for the projects is as follows:

a. Versailles Road Phase I – Construction start Quarter 3 2020; construction complete Quarter 4 2020
b. Versailles Road Phase II – Construction start Quarter 4 2020; construction complete Quarter 1 2021
c. State Street Phase I – Construction start Quarter 4 2020; construction complete Quarter 1 2021
d. State Street Phase II – Construction start Quarter 1 2021; construction complete Quarter 2 2021
e. Winchester Road – Construction start Quarter 4 2020; construction complete Quarter 2 2021
f. Castlewood Phase I – Construction start Quarter 3 2020; construction complete Quarter 1 2021
g. Castlewood Phase II – Construction start Quarter 1 2021; construction complete Quarter 2 2021

The expected monthly project expenditures for these four phased projects are shown in Exhibit 1 of my direct testimony (see Budget Line B – Mains – Replaced/Restored). The final cost for these projects is not known at this time. Once construction of the projects is completed, the final costs will be reconciled during the reconciliation process which will occur in September 2021. It is important to note that KAWC employs an extensive and comprehensive capital management process which tracks the progress and spend of each project on a monthly basis. This process allows KAWC to ensure projects progress efficiently in a cost-effective manner.

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4. Refer to the Stafford Testimony, page 11, line 1. Provide a detailed explanation of how the forecasted cost of unscheduled main replacements, totaling $900,000 was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

Response:

Budget Line C – Mains Unscheduled is used by KAWC to replace sections of mains with a history of chronic main breaks to extend the useful life of these mains instead of repeatedly making repairs on the same main. These are unplanned replacements performed in response to active main breaks. KAWC utilizes historic spend to develop the expected spend total for this line. There can be a large variability in the cost of each unscheduled main replacement. For example, the difference between the cost of an unscheduled main replacement for a 2-inch main in a grass easement and a 20-inch main in a roadway would vary greatly due to factors like the cost of backfill, paving and traffic control in the roadway. Therefore, this budget line is forecasted using historic yearly totals. By the unpredictable nature of unscheduled main breaks, a unit price per break and a total number of breaks for a given year are difficult to estimate. The forecasted $900,000 spend is based on the historical spend for work of this type. This total spend is consistent with the planned 2019 total for the Budget Line C total of $900,000 and slightly higher than the previous 2-year average planned spend of $860,000 (see attached Excel file). The attachment also shows the estimated spend breakdown between KAWC's Central and Northern Districts. Over the past two years, modifications to local paving and restoration ordinances have slightly increased the cost of repairs, especially repairs located within rights-of-way.

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Witness: Kurt Stafford

5. Refer to the Stafford Testimony, page 12, lines 12 and 14.

a. Explain in detail how the forecasted cost of valve replacements, totaling $315,000 was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

b. Explain in detail how the forecasted cost of hydrant replacements, totaling $75,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

Response:

Line F – Hydrants and Valves includes the replacement of leaking, failed or obsolete valves and hydrants, including hydrant assemblies and valves that are Company funded. The replacement of hydrants and valves that have been determined to not function properly through ongoing inspections allows KAWC to maintain public safety and ensure the distribution system is able to provide adequate and reliable service to the community.

a. The forecasted spend for valve replacements is based on a knowledge of valves which need replacement as determined from inspections along with historical cost information. These estimates are created by meeting with the KAWC Operations Team to determine which valves and hydrants they plan to replace as documented through their ongoing valve and hydrant inspection program. Table 3 of the Excel file that is KAW_R_PSCDR1_NUM004_03252020 shows how KAWC arrived at its cost estimates. Estimated quantities from the KAWC Operations Team were multiplied by historical pricing for various valve and hydrant options within the Central and Northern Districts. These estimated unit prices are based on historical costs. The $325,000 projected spend results from replacing an estimated 70 valves at the various unit costs shown in KAW_R_PSCDR1_NUM004_03252020_Attachment. It should be noted that there are 7 transmission valves slated for replacement in the Central District. These valves are used on large diameter water mains and typically have significantly higher material, labor and restoration costs. The cost of each individual valve replacement can vary greatly given factors such as its location (inside or outside of a right-of-way), the size of the valve and restoration required to restore the impacted area (ex. pavement restoration). Therefore, the unit price is an average cost for historic valve replacements. Valve replacement is an ongoing task and therefore the projected monthly spend profiles are consistent.

It should be noted that there is an error in Mr. Stafford's testimony at page 12, line 12 where it states "315,000" for valve replacement. The actual number is $325,000 which sums to be $500,000 when added to the $175,000 for hydrants. Please see Table 3 of the Excel file KAW_R_PSCDR1_NUM004_03252020_Attachment for amended estimate for valve replacements.

b. The forecasted spend for hydrant replacements was performed using a similar methodology to valve replacements in part a above. Table 4 of the Excel file KAW_R_PSCDR1_NUM004_03252020 shows how KAWC arrived at its cost estimates for hydrant replacement using estimated unit pricing and quantities. Conditions at each site can vary greatly, but the average unit prices are based on historical information. Hydrant replacement is a continuous and ongoing process and therefore the projected monthly spend profiles are consistent.

   The total estimated spend for Budget Line F is comparable to the 2019 planned spend of $492,960. The two-year total average (2018 and 2019) for this type of is replacement work is $481,580 as KAWC has increased service and lateral replacement as it has placed an increased focus on this type of work. For historical spend comparisons, please see KAW_R_PSCDR1_NUM004_03252020_Attachment

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Witness: Kurt Stafford

6. Refer to the Stafford Testimony, page 13, lines 1, 2, 10, 11, and 21.

a. Explain in detail how the forecasted cost of replacing services and laterals, totaling $530,000, was calculated. Include all calculations, in Excel spreadsheet format, with formulas intact and unprotected and all rows and columns fully accessible.

b. Explain in detail how the average cost per service and lateral replacement of $4,500 was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

c. Explain in detail how the forecasted cost of meter replacements, totaling $1,200,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

d. Explain in detail how the average cost per meter replacement of $189.20 was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

e. Explain in detail how the forecasted cost of SCADA improvements, totaling $325,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

Response:

a. The projected spend of $530,000 was calculated based on historical yearly spend on Budget Line H and by the proposed quantities of work as shown in Tables 6 and 7 of KAW_R_PSCDR1_NUM004_03252020_Attachment. The $530,000 projected total spend is comparable to the 2019 planned spend of $532,500 and also the average 5-year spend of $505,800. This type of work is continuous and ongoing.

b. The $4,500 estimated replacement cost per service is for a long side service in the Central District. There is an error in Mr. Stafford's testimony on this point at page 13, lines 2 and 3. There are actually three unit prices used to build the estimate for services and lateral replacement. These three separate unit prices are shown at Table 6 in KAW_R_PSCDR1_NUM004_03252020_Attachment and are $4,500 for Central – Long Side Service, $1,500 for Central - Short Side Service, and $1,200 for Northern – Service. For clarity, a long side service replacement is where the main is on the opposite side of the road from the property being served and the service line must be

relayed a longer distance. Conversely, a short side service replacement is a situation where the water main is on the same side of the road as the property being served. Hence the service line is shorter and less expensive to relay. Table 6 in KAW_R_PSCDR1_NUM004_03252020_Attachment details the expected quantities for each category within the Central and Northern Districts. These unit prices are based on historical cost data. The total projected spend of approximately $531,000 is accurate.

c. The projected spend for Budget Line J was based on number of meters which need to be replaced over the twelve-month period. See the estimated quantities for various meter sizes broken down by district in Table 8 in KAW_R_PSCDR1_NUM004_03252020_Attachment. The $1,200,000 projected spend total was based on taking the estimated unit cost of the various meters slated for replacement and multiplying that by the quantity needing to be replaced. Table 9 of KAW_R_PSCDR1_NUM004_03252020_Attachment shows that the proposed spend of $1,200,000 is comparable to the 2-year average spend of $1,270,000.

d. The average estimated cost per meter replacement is $189.20. This cost was developed by dividing the projected total spend by the number of meters estimated to be replaced. For more information on the estimated cost of specific meter sizes, see the district column of Table 8 in KAW_R_PSCDR1_NUM004_03252020_Attachment.

e. Budget Line L – SCADA Equipment and Systems will replace critical communications infrastructure at network and plant facilities. The projected spend for this line is based on the projected projects shown in Table 10 of KAW_R_PSCDR1_NUM004_03252020_Attachment.

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Witness: Kurt Stafford

7. Refer to Stafford Testimony, page 13, line 6, which references replacement of existing customer meters. Explain what is meant by "with or without technology changes."

Response:

When KAWC replaces a customer's meter, the meter is replaced with an in-kind water meter. Currently, all KAWC's customer meters are utilizing Automatic Meter Reading (AMR) technology. However, advancements in meter technology mean that these replacement meters are compatible with newer technology and potentially upgradeable at a later date. The current plan only consists of replacing customer meters with in-kind AMR meters.

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Witness: Kurt Stafford

8. Refer to the Stafford Testimony, page 14, line 13. Explain in detail how the forecasted cost of upgrades to security systems, totaling $130,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

Response:

Budget Line M - Security Equipment and Systems is associated with the security equipment and systems that are employed at the Kentucky American facilities. This may include the replacement of fencing, alarm systems, cameras, barricades, electronic detection or locking systems, software, or other assets related directly to security. The forecasted $130,000 is based on the projects projected for the upcoming 12-month period. See Table 11 of KAW_R_PSCDR1_NUM004_03252020_Attachment for a list of these projects. The historical spend for this line fluctuates based on needed projects. The historical 5-year average (2015-2019) is $237,000 as shown in Table 12 of KAW_R_PSCDR1_NUM004_03252020_Attachment. As these projects are ongoing and continuous, the monthly spend profile for this line is consistent.

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Witness: Kurt Stafford

9. Refer to the Stafford Testimony, page 15, lines 3 and 13.

a. Explain in detail how the forecasted cost of high service moto and starter replacements, totaling $750,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

b. Explain in detail how the forecasted cost of replacing the Cox Street Booster Station, totaling $1,000,000, was calculated. Include all calculations in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

Response:

a. The $750,000 forecasted spend is based on historical information. Table 13 in KAW_R_PSCDR1_NUM004_03252020_Attachment shows the average 5-year spend for Budget Line Q as $1.82 million. However, as it relates to the Qualified Infrastructure Program or QIP, only replacement work on this line is eligible for QIP. This budget line includes work which replaces older equipment and components with newer and more efficient ones. This work is varied and could either be planned or the result of a failure. Pump motors and starters are typically higher cost items on this budget line. Currently, the following projects are planned to be completed during the 12-month period:
* High Service Pump 6 Replacement at the Richmond Road Facility (estimated $350,000)
* Richmond Road Storage Building Replacement (estimate $80,000)
* KRS1 Transfer Meter Replacement (estimated $80,000)
* KRS2 Sludge Pump Replacement (estimated $70,000)
* KRS1 Transfer Pump Valve Replacement (estimated $110,000)
* KRS1 Chemical Piping Upgrades (estimated $60,000)

b. The Cox Street Booster Station Project was estimated using the results from similar historical replacement projects. Table 14 in KAW_R_PSCDR1_NUM004_03252020_Attachment shows the historic design and construction costs for two previous booster pump station projects. These stations were larger and the projects were more technically difficult than the Cox Street Project. Therefore, KAWC believes that

$50,000 for design and $950,000 for construction is an adequate estimate for this project.

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Witness: Elaine Chambers

10. Refer to the Direct Testimony of Elaine Chambers, Workpaper KAW_DT_EKC_WP_030220.xlsx (Chambers Workpaper Spreadsheet). Explain the difference between tabs labeled "Placed in Service" and "QIP Spend Jan 20-June 21."

Response:

"QIP Spend Jan 20-June 21" shows how the costs are incurred for the projects. "Placed in Service" shows when the plant is in service, used and useful. The In Service date can lag one to two months after the QIP spend depending on the type of project.

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Witness: Elaine Chambers

11. Refer to Chambers Workpaper Spreadsheet, tab labeled "Placed in Service."

a. Explain whether the monthly totals were calculated by projection of actual costs per month or by allocating a known total project cost to each month.

b. As shown in the tab labeled "Placed in Service," the plant removal rates as of June 2017 produces a utility plant reduction of $1,292,015, while the three-year average composite removal rate of 7.27 percent included in the tab labeled "Assumptions" produces a Utility Plant Retirement of $975,553. Explain in specific detail why Kentucky-American used the composite removal rates in place of the removal rates as of June 2017.

c. Provide updated removal rates for each line item as of June 2018. Include all calculations supporting the 2018 removal rates in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

d. Provide the detailed calculations supporting the 2017 removal rates in Excel spreadsheet format with formulas intact and unprotected and all rows and columns fully accessible.

e. Provide an updated version of the tab labeled "Placed in Service" that reflects the retirement rates as of June 2018.

Response:

a. The total project costs were estimated for each project, and then allocated over the durations of the projects that are expected to be placed into service within the QIP year timeframe of July 1, 2020 through June 30, 2021.

b. The removal rates in the tab labeled "Placed in Service" and the retirement ratio in the tab labeled "Assumptions" are used for two separate calculations. The removal rates are used to calculate cost of removal. The cost to remove an asset includes costs for labor, contracted services, paving, materials and supplies, etc. The retirement ratio is used to calculate the removal of the original cost of the asset.

c. The June 2017 removal rates listed in the Chambers Workpaper Spreadsheet, "Placed In Service" tab, are the most current, updated removal rates used by the Company.

d. The 2017 removal rates are standardized removal rates which are uniformly used and are based on information gathered from historical projects. Those rates were provided to the Company by American Water Works Service Company. At this time, the Company does not have the underlying data for those rates, but it will supplement this response as soon as possible.

e. Please see KAW_R_PSCDR1_NUM011_03252020_Attachment.

Witness: Elaine Chambers

12. Refer For the schedule below:

a. Provide an explanation for the difference between forecasted QIP costs for each category from Kentucky-American's most recent rate case, Case No. 2018-00358,[1] and the costs included in the application in this current case.

b. Confirm that categories B and B2 from Case No. 2018-00358 were combined in Chambers Workpaper Spreadsheet, tab labeled "Placed in Service."

	July 1, 2020 through June 30, 2021		
	Case No. 2018-00358 AG 1st DR; Item 59	KAW_DT_ EKC_WP Tab: Placed In Service	Difference
B - mains replaced	$ 750,000	$ 7,300,000	$ 6,550,000
B2 - Main Replacement Cast Iron	2,250,000		(2,250,000)
C - mains unscheduled	450,000	918,500	468,500
D -mains relocated	200,025	476,000	275,975
F - valves, hydrants and MHs replaced	249,480	515,500	266,020
H - services and laterals replaced	266,250	559,000	292,750
J - meters replaced	571,350	1,225,000	653,650
L - SCADA	166,500	251,800	85,300
M - security	65,000	124,200	59,200
Q - plant equipment	375,000	1,100,000	725,000
Totals	$ 5,343,605	$ 12,470,000	$ 7,126,395

Response:

a. The costs for each category shown in Case No. 2018-00358* were pulled from the 2020 column of the QIP SCEP. However, those costs only account for the period from July 1, 2020 to December 31, 2020.

[1] Case No. 2018-00358, *Electronic Application of Kentucky-American Water Company for an Adjustment of Rates* (Ky. PSC Aug. 8, 2019).

The costs for each category shown in KAW_DT_EKC_WP Tab: “Placed In Service” include costs during the time period of the QIP Year 1, which runs from July 1, 2020 to June 30, 2021.

The differences for each category as shown in Commission Staff’s Request are therefore due to the additional six months of work being placed in service.

b. Yes, that is correct. The B and B2 categories were combined in the Chambers Workpaper Spreadsheet tab labeled “Placed in Service”.

Witness: Elaine Chambers

13. Refer to Chambers Workpaper Spreadsheet, tab labeled "Depreciation Exp."

a. Explain why Kentucky-American used a composite depreciation rate to calculate Depreciation Expense when the rates for each plant account are listed in the tab labeled "Depreciation Rates."

b. Provide an updated Depreciation Expense total and deferred income taxes using the individual plant depreciation rates.

Response:

a. KAW used a composite depreciation rate in the sample calculation filed in 2018-00358. We did a comparison calculation based on using the individual rates, and the difference was immaterial, as seen in part b.
b. Please see KAW_R_PSCDR1_NUM013_03252020_Attachment.

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Witness: Elaine Chambers

14. Refer to Chambers Workpaper Spreadsheet, tab labeled "Net Plant Changes." Explain why Kentucky-American used a composite retirement rate in the calculation of retirements when the individual retirement rates are available in the tab labeled "Place in Service."

Response:

Please refer to the response to KAW_R_PSCDR1_NUM011_03252020, part e. The three-year average used to calculate the composite retirement ratio produced more reasonable retirement ratios than using the individual rates for the plant accounts. Therefore, the Company elected to use a composite retirement rate.

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Witness: Elaine Chambers

15. Refer to Chambers Workpaper Spreadsheet, tab labeled "Property Tax Ratio." Provide an updated schedule to reflect 2019 property taxes.

Response:

Please see attachment.

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Witness: Kurt Stafford

16. Refer to the application, paragraph 8. Explain in specific detail the basis for Kentucky-American's assertion that the projects included in the QIP are projects for which a Certificate of Public Convenience and Necessity is not required.

Response:

The proposed QIP work is replacement work or ordinary extensions in the usual course of business pursuant to KRS 278.020(1) and 807 KAR 5:001, Section 15(3), and, thus, does not require a Certificate of Public Convenience and Necessity (CPCN"). None of the proposed projects involve a substantial level of investment or capital outlay, nor do they represent a significant alteration or addition to the normal operation of Company's facilities. For example, the Cox Street Booster Station project is estimated at $1 million. As shown in KAWC's annual report for 2018 on file with the Commission, KAWC's Net Utility Plant is approximately $585 million. The entire cost of the Cox Street Booster station is well under one percent of Net Utility Plant. That amount does not rise to the level of requiring a CPCN.