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MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

AUDITING DEPARTMENT

REBUTTAL TESTIMONY

OF

MARK L. OLIGSCHLAEGER

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2017-0285

Jefferson City, Missouri
January 2018

Exhibit No. 110
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Q. Please state your name and business address.

A. Mark L. Oligschlaeger, P.O. Box 360, Suite 440, Jefferson City, MO 65102.

Q. Did you previously contribute to Staff's Cost of Service Report (Staff Report) that was filed on November 30, 2017?

A. Yes, I did. I sponsored the section of the Report titled "Analysis of Historic Test Year vs Future Test Year Ratemaking Approaches."

EXECUTIVE SUMMARY

Q. Please summarize your rebuttal testimony in this proceeding.

A. In this testimony, I will address the proposal made by Missouri-American Water Company (MAWC) witnesses in this proceeding that the Missouri Public Service Commission (Commission) adopt a future test year approach to set customer rates for MAWC. This proposal is primarily sponsored in the direct testimony of MAWC witness James M. Jenkins at pages 3 - 16.

In this rebuttal testimony, I will explain the reasons why Staff is not persuaded that adoption of future test year ratemaking is appropriate at this time for MAWC.

I will also briefly discuss the impact on this case of the recently enacted *Tax Cuts and Jobs Act* federal legislation.

Q. Are there any other Staff witnesses addressing the future test year proposal in Staff's rebuttal testimony?

A. Yes. Staff witness Jarrod J. Robertson is addressing MAWC's proposed method for projecting future customer sales for purposes of revenue determination.

FUTURE TEST YEAR

Q. What is a "test year?"

A. A "test year" is twelve months of utility financial data that serves as the starting point for the analysis of utility rates in a general rate proceeding. In Missouri, a test year has consisted of twelve months of historical financial data that is available for review and audit at the time the utility files its rate change application.

Q. What is a "future test year?"

A. A "future test year" is a ratemaking approach that establishes customer rates based on estimates of the levels of revenues, expenses and rate base the utility will incur in a future period.

Q. How is the historical test year approach currently used in Missouri different from the future test year approach advocated by MAWC?

A. Under a historical test year approach, customer rates are established using actual past levels of revenues, expenses and rate base. Test year revenue/expense/rate base amounts are the starting point for rate analysis, and are subject to both normalization adjustments to eliminate abnormal test year amounts and annualization adjustments to reflect the latest known trends in the utility's cost structure. Normalization and annualization adjustments can and do incorporate financial information beyond the strict twelve-month test year period to reflect material changes in utility cost of service up to a few months before the

operation-of-law date. Unlike the case with a future test year, historical test year ratemaking does not directly reflect forecasted values for revenues, expense or rate base.

Q. Why is MAWC proposing that a future test year be used in this case to set its rates?

A. Based upon a review of Mr. Jenkins' direct testimony, the primary rationale for a future test year appears to be a belief that use of a historic test year at this time will not afford MAWC a reasonable opportunity to earn its authorized rate of return prospectively. This proposal is premised upon an assertion that, under a historic test year approach, the amount of "regulatory lag" experienced by MAWC will be excessive.

Q. What is "regulatory lag?"

A. Regulatory lag is the lapse in time between when a utility experiences a financial change and when that change can be reflected in its rate levels. Regulatory lag can be either detrimental or beneficial to a utility's earnings, and under either scenario the existence of this phenomenon serves as an important incentive on the utility to be as cost-conscious and efficient over time as possible, in order to maintain its earnings levels.

Q. What were the major components of Staff's review of MAWC's future test year proposal in this proceeding?

A. Staff's scope on this issue in this case was as follows:

1) To obtain a general theoretical and practical understanding of how future test years have been employed in other jurisdictions;

2) To express an opinion concerning the levels of incentives for cost control and good management of a utility's operations that are inherent under the future test year approach, compared to the incentives using a historic test year;

3) To determine whether MAWC's projections of future revenue/expense/rate base levels are reasonably consistent with recent actual experience;

4) To explore to what degree the process and procedures used by MAWC to forecast its financial results for rate purposes are consistent with its process and procedures used in its annual budgeting process; and

5) To express an opinion regarding the relationship between the special alternative "regulatory tools" currently being used by or available to MAWC and its future test year proposal.

I will address each of these points in turn in this testimony.

FUTURE TEST YEARS IN OTHER JURISDICTIONS

Q. Has Staff reviewed information concerning the use of future test years in other jurisdictions in this case?

A. Yes. Staff's primary source for this information was the two National Regulatory Research Institute (NRRI) reports previously referenced in the Staff Report, and that were attached to earlier pleadings in this case. Staff also reviewed information in the S&P Global Market Intelligence (formerly SNL Energy) database concerning use of future test year approaches in other jurisdictions. The SNL database contains information on the regulatory and ratemaking practices of all of the state public utility commissions.

Q. Is use of future test years common in other jurisdictions?

A. Based upon the information reviewed by Staff, it appears that at least 15 and possibly up to 20 state public utility commissions (PUCs) use future test year approaches as a matter of general policy. Other public utility commissions may use future test years in some circumstances, but not necessarily as consistent policy.

It should also be noted that a wide variety of practices and requirements have been put in place in other jurisdictions regarding use of future test years.

Q. What are some of the areas in which PUCs that use future test years have varying practices?

A. Among these areas are the amount of upfront information filed by the utility to support a future test year; the source from which utilities employ escalation or inflation factors to adjust expense amounts; whether or not the that PUC staff perform an independent forecast of some or all of the utility's financial data, instead of solely relying on proposed adjustments to the utility's forecasts; whether a further third party audit of utility forecasts is necessary beyond PUC staff review; and whether some components of the utility's forecasted financial results should be "trued-up" to actual results at some point in the process.

In the event that the Commission determines that further consideration should be given to implementation of future test years in Missouri, all of the above areas should receive further scrutiny.

FUTURE TEST YEAR INCENTIVES

Q. In his direct testimony, Mr. Jenkins portrays the historical test year model as not compensatory for utilities in today's rising cost environment, with future test years being the better approach. Does Staff agree with this characterization?

A. No. Staff agrees that the current cost environment for regulated utilities makes ratemaking a more challenging endeavor under a historical test year approach than in some past timeframes. However, Staff does not agree that use of a future test year approach instead would automatically produce more accurate or appropriate rates than under a historic test year. In addition, Staff has concerns regarding the effects of use of future test years

on existing utility incentives to provide safe and adequate service at the lowest reasonable cost of service.

Q. Why would use of future test years not necessarily lead to more accurate or appropriate rate levels use of historical test year approaches?

A. In the hypothetical scenario wherein utility budgets could be relied upon to accurately forecast future financial events, there would be little conceptual reason to object to setting rates on a forecasted basis. However, in reality, budgets may be assembled using either conservative (easier to achieve) or challenging (harder to achieve) assumptions; may be put together with great attention to consistency between revenue, expense and capital assumptions, or not; may be prepared in great detail or by "broad brush;" and may be subject to significant bias in respect to the results used for ratemaking purposes, or not. For all of these reasons, the information that would be used to set rates under a future test year is inherently much more speculative and less reliable than the historical cost information relied upon traditionally by this Commission to establish utility rates.

Q. Why is Staff concerned regarding the "incentive" effects of a future test year process?

A. Stated broadly, use of any test year approach to set rates is intended to establish an overall revenues/expense/rate base relationship on which current customer rate levels should be set. Under a historical test year approach, all of the financial data is based upon actual recorded utility accounting records, adjusted to normalize and annualize key utility data to reflect the most current trends beyond the test year in the underlying costs. Under a future test year approach, this relationship is based entirely upon forecasted data. In essence, the revenues/expense/rate base relationship established in rates under either test

year approach means that if a utility can manage its expenses and capital costs to keep their growth in line with the growth trend for revenues, it will still be able to earn at or near the overall rate of return previously established by the Commission.

Under a historic test year, this overall revenues/expense/rate base relationship efficiency target is set based upon actual past cost of service results incurred by the utility. In contrast, under a future test year approach, the overall efficiency target is set using speculative future financial information. In the specific circumstances for MAWC in this case, and in general for utilities seeking rates set based on forecasts, it may be safely assumed that the revenues/expenses/rate base relationship forecasted by the utility will lead to higher rates than if historic data was relied on instead. So, while a utility using a future test year will still have financial incentives to attempt to keep its expense and capital costs within the parameters assumed in setting its rates, those expense and rate base levels will very likely be higher, and possibly much higher, than the similar levels produced by a historical test year. For this reason, utilities inherently have less incentive to control capital costs and expenses under a future test year approach than under a historical approach.

Q. Wouldn't it be "unfair" to the utility for a public utility commission to employ historical test year approaches for setting rates in a rising cost of service environment?

A. That assertion ignores the reality that utilities ultimately have a substantial amount of control over their costs. It is the utility that chooses what capital projects to undertake, how many employees it needs, and what to pay those employees, among many other decisions. A utility should be assumed to have some level of control of its financial destiny. For this reason, the abstract consideration of whether a future test year or historic test year is more apt to produce rates consistent with a utility's ongoing cost of service is not the

only question the Commission should explore. The question of how the Commission's choice between a future or historical test year approach may affect the amount of a utility's ongoing cost of service is also be important to examine. Staff's concern is that forecasts of rising costs accepted through use of future test year approaches for ratemaking purposes may to some degree become "self-fulfilling prophecies," as the utility incentives to "beat" those estimates will be weak at best under a future test year regulatory structure.

Q. Is use of a future test year consistent with the "matching principle" used in ratemaking in Missouri?

A. Theoretically, yes. The "matching principle" used in Missouri requires that all major components of a utility's cost of service be measured at the same point in time in setting customer rates. In a future test year scenario, if the forecasts of major elements of the utility's revenues, expenses and rate base are calculated at the same point in time, then the matching principle would seem to be maintained. However, this principle operates under a historic test year approach through use of verifiable known and measurable financial data. With a future test year, successful application of the matching principle to the utility's forecasted financial data is entirely dependent upon the utility's ability to accurately forecast its revenues, expenses and capital costs without significant bias and with attention to the inter-relationship between these forecast assumptions.

Q. Is use of a future test year consistent with the "known and measurable" principle traditionally used in ratemaking in Missouri?

A. No, not at all.

MAWC'S FUTURE TEST YEAR APPROACH

Q. In general, how did MAWC put together its future test year projections?

A. For revenues, MAWC applied an estimated annual sales decrease assumption to the adjusted level of customer sales through use of a regression analysis. MAWC's projected revenues calculation is being addressed by Staff witness Robertson.

For plant in service, depreciation reserve, accumulated deferred income tax reserve and most other rate base items, the Company has projected monthly balances for the period of June 2018 through May 2019 (the "rate year"), and taken a thirteen-month average of those balances for inclusion in its future rate base. The value of assumed future plant in service additions were obtained from MAWC's 2018 - 2022 "Strategic Capital Expenditure Plan."

For operating expenses, MAWC performed a few discrete analyses of individual expense items to determine their projected level. However, for many expense items, MAWC simply applied a general inflation factor to the adjusted test year balance in order to project these amounts into the future.

Q. For rate base valuation, how did the amount of projected net plant additions assumed by MAWC past the true-up cut-off date in this case (December 31, 2017) compare to the level of net plant additions made by MAWC in prior periods?

A. To gain an approximate measure of the growth in MAWC's rate base in the past and projected through May 2019, Staff subtracted the actual or estimated annual increase in MAWC's accumulated depreciation reserve and accumulated deferred tax reserve from its actual or estimated annual increase in net gross plant in service (plant additions less plant retirements). It is appropriate to model rate base using plant in service, accumulated depreciation reserve and accumulated deferred tax reserve as these three items are almost always by far the largest items in utility rate base.

Based on MAWC's filed case, the net growth in rate base resulting from subtraction of MAWC's projected growth in depreciation and deferred tax reserve balances from its projected net plant additions amount is $113.6 million for calendar year 2017 compared to the value of net rate base at year-end 2016, or an 8.17% increase in net rate base. The comparable amount for 2018 over 2017 is $121.8 million, or an 8.09% increase in net rate base from the end of 2017. MAWC projects its net rate base will increase by $53.2 million for the months of January through May 2019, for a further 3.27% increase (7.85% stated on an annual basis).

To review MAWC's recent growth trend for rate base, Staff reviewed MAWC's Commission Annual Report filing from 2010 through 2016 and offset the annual net increase in gross plant in service accounts shown in these documents with the increases in the balances of accumulated depreciation and accumulated deferred income tax reserve accounts. The growth amounts and percentage increases in MAWC's net rate base from recent years are as follows:

2011 Compared to 2010	$45.2 million	4.50%
2012 Compared to 2011	$63.6 million	6.06%
2013 Compared to 2012	$36.1 million	3.23%
2014 Compared to 2013	$59.3 million	5.15%
2015 Compared to 2014	$86.7 million	7.17%
2016 Compared to 2015	$79.8 million	6.16%
Average for All Years	**$61.8 million**	**5.40%**

As can be seen, for purposes of this case MAWC is projecting that it will experience a significantly higher growth in its net rate base from January 2017 through May 2019 that it has recently experienced on average.

Q. Does Staff have specific concerns regarding use of estimated capital expenditures in setting rates?

A. Yes, Staff has several concerns.

Q. What is Staff's first concern?

A. The first concern is that reliance on projected plant additions in setting current customer rates would effectively put to an end the Commission's "used and useful" standard for valuation of plant in service in rates that has been in place for many decades. Staff's position is that the used and useful standard is still an appropriate ratemaking policy under almost all circumstances. Nowhere in MAWC's direct testimony do Mr. Jenkins or other MAWC witnesses even address a scenario where plant additions assumed for purposes of setting rates are not actually placed in service within the timeframe forecasted by the utility, much less propose any remedies for that situation.

Q. What is Staff's second concern?

A. The second Staff concern is that use of forecasted plant additions to set rates can provide inappropriate incentives for utility management in some circumstances.

Staff understands that annual budgeting processes in general are intended to provide an operational and financial plan for the coming year. A good annual budget should provide for fairly rigorous but achievable financial targets, and be flexible enough to incorporate changes in operating and financial plans as unforeseen events occur that were not anticipated.

A good illustration of this is a utility's capital budget. This type of budget should be based on the costs associated with specific projects and ongoing construction programs that are judged by the utility to be high priority in nature. However, unanticipated events may

occur that change or should change the utility's priorities; as a result some new expenditures may be given higher emphasis and other projects delayed until a later time.

Under traditional regulation, there should be no direct impacts on ratepayers from these types of budget adjustments. With use of future test years, however, complications arise from budget priority changes as the cost of projects included in customer rates may be cancelled or postponed as a result. This may lead to a utility reluctance to change the priority of its budgeted plant additions in light of unforeseen circumstances because of the perceived inconsistency with its capital budget reflected in its rates, even if a change in priority would be the most prudent course of action.

Q. Does Staff have a similar concern with use of future test years for expenses?

A. Yes. Budgeted payroll increases are a good example of the same phenomenon relating to forecasted expenses. Once a budgeted salary increase in approved in setting rates, the utility may perceive that the best course of action is to "lock in" that budget assumption, even if a smaller amount of increase was optimal to the utility.

Q. How do MAWC's forecasted level of operating expenses built into its case compare to its prior actual levels of operating expense?

A. "Operating expenses" is defined in this testimony as all water and sewer operating and maintenance expenses, as well as total administrative and general expenses. These calculations exclude depreciation, amortization, income tax and other tax expenses.

MAWC is seeking a total of $133 million in operating expenses in this proceeding. That is the level that MAWC argues is reasonable to project that it will incur for the 12 months of June 2018 through May 2019 (the rate year). This compares to the following

past annual levels of operating expense, again taken from the Commission Annual Reports for the years 2010 through 2016:

2010	$120.2 million
2011	$122.2 million
2012	$130.9 million
2013	$126.4 million
2014	$125.3 million
2015	$125.8 million
2016	$125.3 million

Q. Does MAWC's proposed amount of expense to include in this case appear to be out of line with its recent history?

A. Yes, substantially. As can be seen, MAWC experienced minimal growth in operating expenses from 2010 to 2016, with an average annual growth rate for these expenses of approximately 0.75%. Furthermore, there has been no overall growth in the amount of MAWC's operating expenses from 2013 to 2016. These results point to an apparently good record of cost control by MAWC in recent years.[1] However, in this case MAWC is projecting for rate purposes a 6.1% increase in operating expense over 2016 levels, a rate of increase that translates into an average annual increase to these costs of approximately 2.0%. This is more than twice the actual escalation rate experienced by MAWC for operating expenses for the years 2010 through 2016.

[1] This record is more impressive when the fact that MAWC has made a number of acquisitions of small water and sewer utilities since 2010 is taken into account. These acquisitions would be expected to increase MAWC's overall level of operating expense, as well as revenues and rate base.

Q. What are the primary drivers behind MAWC's higher proposed level of operating expenses in this case?

A. One reason for this increase is that MAWC is projecting a significant increase in the number of employees compared to the recent past in this proceeding. MAWC's case is based upon a full time employee level of 696 positions, while MAWC only had 642 employees at year-end 2016.[2] However, MAWC has also stated that it expects to reach its target level of employees by year-end 2017, and is not projecting a further increase in employee numbers through May 2019 for ratemaking purposes. For that reason, the increase in the number of MAWC's employees from the test year does not appear to be specifically a future test year issue at this time.

Another reason for MAWC's forecast of rapidly growing expense levels is its approach of applying "inflation factors" to adjusted test year expense levels. In this case, MAWC applied an inflation factor to the adjusted test year balances of many of its expense items, and assumes that the dollar value of these expenses will increase at an annual rate of 2.1% for the period January 2018 through May 2019.

Q. What is the source of MAWC's proposed 2.1% inflation factor?

A. This value represents the 2018 average Gross Domestic Product (GDP) Price Index forecast percentage compiled by "Blue Chip Economic Indicators." According to a footnote to MAWC witness Nicole L. Bowen's direct testimony at page 5, the GDP price index measures "price changes in goods and services purchased by consumers, businesses, government, and foreigners, but not importers." Staff understands this value to be a

[2] MAWC did not fill all positions becoming vacant during the period from 2016 – 2017 that its ISRS was suspended. As of August 2017, MAWC is again able to use ISRS ratemaking for its St. Louis County service area.

measurement of the estimated impact of general inflation on the U.S. economy in calendar year 2018.

Q. What is Staff's position concerning use of inflation/escalation factors in the context of future test years?

A. Staff is opposed to use of inflation factors in concept, and further objects to MAWC's specific proposal to use the Blue Chip GDP index estimate for this purpose.

Q. What is the reason for Staff's opposition to use of inflation factors by MAWC?

A. As previously stated, this inflation estimate is applicable to the entire U.S. economy, including purchases by consumers, governmental entities, and all types of manufacturing enterprises and service companies. While utilities are a part of the overall national economy, it should be obvious that utilities make up only a small part of the national economic picture. And, of course, water and sewer utility operations are only a part of the national utility sector. For this reason, it does not make sense to assume that growth over time in the costs of combination water – sewer utility such as MAWC would necessarily have much correlation with growth in costs for the U.S. economy as a whole.

Q. If more utility-specific derived data were proposed by MAWC to serve as inflation assumptions, would application of such indices resolve Staff's concern to MAWC's approach to its future test year?

A. No. First, as previously discussed, MAWC has held its overall operating expense level constant since 2013, and with only a minimal rate of increase since 2010. Given those facts, it hardly seems appropriate to now assume that the vast majority of MAWC's expenses should be subject to significant escalation going forward in the next seventeen months in the context of a future test year proposal.

Second, as previously discussed, one merit of the modified historical test year approach is that it holds the utility to a fairly strict cost control standard. Incorporating into rates an essentially arbitrary expense allowance for future escalation can only significantly weaken the utility's incentives to keep its costs under control.

For these reasons, Staff recommends that inflation/escalation factors not be used in setting expense levels in the event the future test year approach is adopted.

Q. How does MAWC's recent trend in operating expenses compare to the Blue Chip GDP results?

A. The following table compares the actual increase/decrease in MAWC operating expenses from 2010 through 2016 with the Blue Chip GDP forecasts for each of those years:

	% Change	GDP Estimate
2011 Over 2010	1.7%	1.5%
2012 Over 2011	7.1%	1.9%
2013 Over 2012	-3.4%	1.9%
2014 Over 2013	-0.9%	1.7%
2015 Over 2014	0.4%	1.7%
2016 Over 2015	-0.4%	1.7%
Average	**0.75%**	**1.75%**

The MAWC operating expense data is calculated using the amounts previously shown on pages 13 -14 of this testimony. The annual Blue Chip GDP percentages were taken from the MAWC response to Staff Data Request No. 0041.

Q. At pages 9 – 10 of his direct testimony, Mr. Jenkins states that MAWC's cost control efforts in recent years have resulted in superior performance compared to the Consumer Price Index (a general economy inflation measure similar to the Blue Chip GDP). Please comment.

A. Mr. Jenkins presumably intends to use this comparison to portray favorably MAWC's recent history of minimizing increases to operating expenses. But the data presented in MAWC witness Jenkins' testimony concerning the Consumer Price Index comparison, as well as the table shown on the previous page of this testimony regarding the Blue Chip GDP percentages, leads to a further question: if MAWC has shown the ability to consistently "beat" the results of general inflation factors in the past in its cost control efforts, why would it be reasonable to now use this type of escalation factor for ratemaking purposes as a proxy for expected growth in MAWC expenses?

Q. Does Staff have other concerns with MAWC's approach to forecasting future financial results?

A. Yes. In the Staff Report in the section concerning future test years, Staff mentioned a concern that utilities using a future test year would not forecast reasonable estimates of increased productivity or greater efficiency in their requested revenue requirements. Staff has found several apparent examples illustrating this phenomenon in MAWC's case.

Q. Please describe your first example.

A. In the direct testimony of MAWC witness William Andrew Clarkson at pages 15 – 21, he discusses MAWC's efforts to reduce its "water losses."[3] Mr. Clarkson lists a number of operational steps MAWC has or will take in an effort to reduce its current percentage of water losses (22.7% for the 12 months ending May 2017). He goes on to state that MAWC has a long-term goal of reducing the water loss percentage to 15%, and a shorter-term goal to reduce the percentage by approximately 4 percentage points "over the next three years."

Q. Would reducing its water loss percentage have the impact of decreasing MAWC's revenue requirement?

A. Yes. The greater the percentage of water losses, the higher the utility's chemicals, electricity and purchased water expenses will be.

Q. In light of the assertions in Mr. Clarkson's direct testimony as to MAWC's focus on improving this metric in the future, is MAWC forecasting a reduced water loss percentage for purposes of setting rates in this rate case?

A. No. Per MAWC's response to Staff Data Request No. 0214, MAWC's water loss percentage assumed in this rate case is 22.86%, or slightly above the percentage cited by Mr. Clarkson in his direct testimony for the 12 months ending May 2017.

Q. What is Staff's second example of MAWC's apparent failure to reflect improving operating efficiency in its future test year assumptions?

A. The second such example concerns "main break" incidents.

Q. Why do main breaks have a detrimental impact on utility expenses?

[3] In Staff witness James A. Merciel, Jr.'s direct testimony at page 2, he defines "water losses" as the difference between metered customer usage and system delivery.

A. When main breaks occur, the break must be fixed quickly in order to restore water service to customers. A large number of main breaks will result in a material amount of maintenance expense for water utilities.

Q. Does MAWC track the number of main breaks it experiences over time in each of its service areas?

A. No. MAWC only tracks this metric for its St. Louis County service area.

Q. Have MAWC's main breaks in the St. Louis County service area been decreasing in recent years?

A. Yes. Per MAWC workpapers for this case and from its previous rate case, the following are the total main breaks for St. Louis County for the last five years:

2012	877
2013	886
2014	1,118
2015	545
2016	525

(Note: A "polar vortex" cold weather phenomenon occurred in early 2014 that sharply escalated the number of main breaks experienced by MAWC.)

Q. Notwithstanding the 2014 abnormal weather impacts, do the numbers presented in the table above show a clear declining trend in main breaks in recent years?

A. Yes. This is not surprising in light of the statements in MAWC witness Bruce W. Aiton's direct testimony at page 6 that MAWC's ongoing main replacement program has resulted in a reduction in the trend of annual main breaks in recent years.

Q. Is MAWC projecting a reduced level of main breaks for its rate year for purposes of setting customer rates?

A. No. MAWC is basing its cost of service in this case for the St. Louis County service area using a starting point of a historical three-year average of main break occurrences, and then escalates that value using the Blue Chip GDP inflation factor.[4]

Q. Is MAWC including budgeted main replacement program expenditures in its forecasted rate base in its requested revenue requirement?

A. Yes.[5]

MAWC BUDGET PROCESS

Q. Does MAWC have an ongoing annual budget process?

A. Yes. MAWC prepares ten-year capital and operating budgets on an annual basis. These budgets are finalized in December of the preceding year (i.e., the 2017-2026 annual budget was approved in December 2016).

Q. Is more attention given by MAWC to budgeting "year one," or the "first year out," than the subsequent nine years covered under the annual budget process?

A. That is Staff's understanding.

Q. Should "year one" in the annual MAWC budget process be thought of as being generally equivalent to MAWC's proposed "rate year" forecast (June 2018 through May 2019) within its future test year proposal?

A. Yes, in Staff's view.

[4] Refer to the direct testimony of MAWC Nicole L. Bowen, page 21, lines 4 – 16.
[5] Refer to the direct testimony of MAWC witness Aiton, page 5, line 15 through page 6, line 4.

Q. Why did Staff review certain aspects of MAWC's annual budgeting process as part of this rate case?

A. Staff was generally interested in examining the degree of conformity between MAWC's internal annual budgeting process and its future test year ratemaking forecast. While there may be some differences in approach within the two budgeting procedures, Staff would expect they be generally consistent

Q. Did MAWC use the same basic approaches in putting together its future test year forecast that it uses for its annual budget process?

A. No. There is at least one significant difference regarding use of inflation factors to escalate operating expenses. As previously discussed, MAWC is proposing use of inflation factors for this purpose to measure operating expense levels in 2018 and early 2019 for inclusion in rates. In contrast, the response to Staff Data Request No. 0211 states that no inflation factors of any sort were used in the year one annual budget calculations, though such factors are used to escalate expense totals for years two through ten. Moreover, even the escalation percentages used by MAWC for years two through ten in its budget process were developed internally by MAWC; MAWC does not choose to use general inflation factors such as the Blue Chip GDP index at all within its annual budgeting process.

I am attaching MAWC's response to Staff Data Request No. 0211 to this testimony as Schedule MLO-r 1.

Q. In lieu of applying inflation factors to historical cost levels, how does MAWC quantify year one expenses for annual budget purposes?

A. As shown in the response to Staff Data Request No. 0211, in year one the MAWC budget personnel rely on detailed "bottoms-up estimates" put together by subject matter expert employees for many operating expense categories.

Q. Is Staff arguing that the annual budget group's approach to developing first year out expense levels is superior to the use of inflation factors in MAWC's rate case to determine 2018 – 2019 rate year expense levels?

A. Staff's scope in this case did not include doing any kind of in-depth review of MAWC's annual budget process, and cannot express an opinion on the overall quality of this process one way or another. Staff can state, however, that the processes MAWC uses to put together its annual budget forecasts appears to be less superficial than the process used to put together MAWC's future test year projections.

Q. Did Staff ask MAWC why it did not utilize the same forecasting approaches for its future test year as it does for its annual budget process?

A. Yes. MAWC's response was that it was not practical to have the same processes for the annual budget and for rate cases, since the annual budget process is tied to calendar year operations while MAWC's proposed "rate year" (the first twelve months new rates will be in effect from this case) is not be a calendar year. However, even if the timeframes were different, it is not clear why the same general forecasting process for the annual budget could not also be utilized for future test year purposes.

ALTERNATIVE RATE MECHANISMS

Q. Does MAWC currently take advantage of any "special" rate mechanisms?

A. Yes. I am defining "special" rate mechanisms as those that allow utilities to recover certain costs in customer rates outside of normal utility accounting and general rate case procedures and norms.

MAWC currently files for rate increases under the Infrastructure System Replacement Surcharge (ISRS) process for its St. Louis County District, which allows for periodic rate changes associated with certain plant in service additions outside of general rate cases. MAWC currently is allowed use of "tracker mechanisms" for its pension and other post-employment retiree benefits (OPEBs) to shield it from earnings impacts associated with fluctuations in these costs over time, and has used trackers for other types of costs in the past. In addition, MAWC has the ability to seek authorization to use a mechanism for single-issue rate recovery for qualifying environmental costs, but is not seeking authorization to use this mechanism in this case.

Q. Is MAWC seeking authorization to use any other new special rate mechanisms in this proceeding that is separate from its future test year proposal?

A. Yes. MAWC is seeking approval in this case to use a "revenue stabilization mechanism," which is a type of mechanism commonly known as revenue "decoupling."

Q. What is the relevance of these other special mechanisms to consideration of MAWC's future test year proposal in this case?

A. Utilities have frequently argued that continued reliance on utility ratemaking rules and policies in a "rigid" or "inflexible" manner, including strict adherence to historical test year ratemaking, is no longer appropriate in today's rising cost utility environment. However, Missouri ratemaking practices over time have not been rigid or inflexible. The Missouri Legislature and the Commission have made significant modifications to the

utility ratemaking process over the last ten to fifteen years that have aided Missouri utilities in maintaining their earnings levels at reasonable levels. These initiatives include authorizations of fuel adjustment clauses for electric utilities, the ISRS process for natural gas utilities and MAWC[6], the environmental cost adjustment mechanism, and increased use of tracker mechanisms.

To the extent that MAWC or other utilities urge adoption of major substantive changes to the Commission's current ratemaking process, including using of future test years, Staff encourages the Commission to consider whether more limited modifications to the process may be responsive to any legitimate utility concerns in lieu of more far-reaching and potentially disruptive proposals such as future test year implementation.

Q. What is the relationship of MAWC's RSM proposal to use of a future test year?

A. Under a future test year approach, MAWC would forecast the level of future customer sales as part of establishing new rate levels. With the RSM mechanism in place, any difference between assumed utility sales for purposes of setting rates and actual sales levels will be "trued-up" and the financial impact of those differences will be returned over time to either the utility or its customers. Because a utility will be automatically protected from the financial impact of future fluctuations in customer sales if an RSM-type mechanism is approved in the context of historical test year ratemaking, there would be no apparent need to "forecast" future customer sales in setting rates.

Q. Is Staff suggesting that MAWC's RSM proposal and future test year proposals should be viewed as being alternative in nature?

[6] MAWC's use of the ISRS process is limited to its operations in St. Louis County.

A. That is how Staff considers them. Because both the RSM and future test year proposals would limit a utility's risk of future fluctuations in customer sales, albeit by different means, Staff sees no reason for the Commission to adopt MAWC's RSM proposal if it otherwise finds the future test year approach to be reasonable. On the other hand, if the Commission sees merit in the RSM concept, no further consideration of the future test year proposal is needed in this proceeding, in Staff's view.

Q. How can the RSM be considered as an alternative to a future test year if the RSM only addresses revenues and sales levels, and not any rate base or expense items?

A. Of all the arguments that MAWC puts forward in this proceeding to attempt to justify future test years, the only relatively new phenomenon it can cite is its assertions of a recent material downward trend in customer sales. For this reason, Staff's view is that MAWC's assertions regarding ongoing declining sales trends are the primary driver behind its future test year proposal in this proceeding. Staff is merely pointing out that MAWC is proposing two separate and alternative regulatory means in this case to deal with this perceived problem.

Q. Are you suggesting that adoption of MAWC's RSM proposal would be preferable to adoption of the future test year concept at this time from Staff's perspective?

A. No. The RSM/decoupling concept presents a host of practical and theoretical concerns and issues which are not related to future test year issues, and which I am not addressing for Staff[7]. At this time, Staff is not recommending that the Commission adopt either the RSM or a future test year approach for ratemaking purposes in this case. However,

[7] Staff witness James A. Busch will be addressing MAWC's RSM proposal in his rate design rebuttal testimony.

Staff is also recommending in the alternative that under no circumstances should the Commission choose to adopt both proposals.

Q. Is MAWC's future test year proposal consistent with its current use of the ISRS ratemaking process?

A. No. There is no need for a utility to seek single-issue ratemaking treatment of infrastructure plant investments if it is allowed to forecast such costs in its ongoing rates. Recognizing this, MAWC states in its direct testimony that it will forego any ISRS rate recovery in the first year that new rates would be in effect from this case, if it is allowed use of a future test year.

Q. Does Staff agree with this proposal?

A. Yes. However, Staff would go farther and state that the ISRS process as a whole appears to be unnecessary and redundant if future test years are used to set rates scenario. The ISRS process is a modification to the historical test year ratemaking process that the Missouri Legislature deemed appropriate over ten years ago. If future test year ratemaking had been in place in Missouri in the past, it is reasonable to assume that no push would have been made in Missouri to implement the ISRS ratemaking process or anything similar to it.

FUTURE TEST YEAR PRACTICAL CONCERNS

Q. In Staff's Report in the Future Test Year section, you discussed a contention that any transition between use of the current historical test year approach to a future test year approach in Missouri would pose significant burdens on Staff and the Commission. Please elaborate.

A. In regard to setting rates for Missouri utilities, movement towards use of a future test year would require a very different audit approach in major rate cases. Under current Missouri practices, the most important question to answer is "How should this historical cost be adjusted, if necessary, to be an appropriate component of ongoing customer rate levels?" Under a future test year scenario, the most important question would be "Is this an appropriate forecasted level of this cost to include in ongoing customer rate levels?" The focus unavoidably would shift from a thorough review of the recent costs incurred by a utility seeking a rate change (historical test year) to reviewing that utility's ability to accurately forecast costs (future test year). These are quite different audit focuses.

Q. Would a shift towards use of a future test year mean an increase in the incremental workload of Staff participating in the rate case audit?

A. Yes. This is because use of a future test year should not be expected to necessarily materially decrease the type of work done in a historical test year format to adjust test year costs. The starting point for any future test year analyses should be a 12-month period of actual recorded financial information, which must still be adjusted for normalization, annualization and prudence adjustment purposes. Then, once historical costs were properly adjusted in this fashion, a further set of adjustments is necessary under a future test year to project the historical levels of revenues, expenses and rate base out into the future. Accordingly, the adjustment analysis for historical cost levels that is currently being performed under Missouri's traditional ratemaking approach would still largely or entirely need to be done under a future test year construct as well. The significant work that would need to be done to examine and verify the utility's proposed projections would be in addition to the historical cost analysis workload already part of Missouri ratemaking.

Q. Would a shift towards use of a future test year potentially require a restructuring of Staff?

A. Staff does not currently possess a great amount of expertise in critical evaluation of forecasting and budgeting techniques and results. In the NRRI Reports previously referenced, there is mention of the possible need for additional hires of economists and forecasters on public utility commission staff moving to use of future test years in order to allow for a more meaningful review of utility cost forecasts.[8]

Q. Would a shift towards use of a future test year potentially require significant amounts of additional training for Staff?

A. Yes. I foresee that a major training effort would be necessary to bring Staff "up to speed" regarding use of future test years and the varying practices of those jurisdictions utilizing this approach. This training would probably include hiring outside experts with experience in future test year evaluation in other jurisdictions to aid in training internal Missouri Staff.

Q. Should any of the practical concerns with use of future test years listed above be determining factors on whether a future test year approach should be implemented in Missouri?

A. No. Staff's view is that the Commission's decision on MAWC's request in this case should primarily be based on policy considerations, such as what approach is most likely to lead to setting just and reasonable rates for customers. Staff has only listed some of the practical concerns to convey that transition to a future test year approach in some or all general rate cases would not be a simple or easy matter. For these reasons, Staff views that it

[8] *Future Test Years: Challenges Posed for State Utility Commissions,* National Regulatory Research Institute, July 2013, page 13.

would not be very practical to implement use of a future test year in a case as an "experiment" or a "trial run." Therefore, Staff urges the Commission to maintain its current historical test year approach unless the Commission is strongly convinced by the evidence in this case that use of future test years is clearly superior to historical test years.

SUMMARY AND CONCLUSIONS/FUTURE TEST YEAR

Q. Please state Staff's overall position regarding MAWC's request for use of a future test year in this proceeding.

A. Staff's position is that MAWC has failed to provide sufficient evidence that the Commission should change its long-standing practice of relying on historical test year data to set utility rates, and its future test year proposal should not be adopted.

Q. In Staff's view, would setting MAWC's customer rates in this proceeding on a historical test year basis still allow it a reasonable opportunity to earn a fair rate of return?

A. Yes. Use of historical test year ratemaking for MAWC would also provide the utility with continued and appropriate incentives to minimize its cost of service to the benefit of customers.

Q. In the event the Commission adopts MAWC's request in this case for a future test year, does Staff recommend that certain conditions be attached to that approval?

A. Yes. These conditions were first set forth in Staff's Report filed November 30, 2017, and are:

1) Use of general inflation factors should not be allowed for purposes of escalating utility costs in the context of a future test year;

2) Utilities using future test years should be required to demonstrate that the sponsored financial projections reflect reasonable assumptions of increasing productivity or efficiency compared to prior historical results;

3) Utilities using future test years should be required to return amounts to customers if projected plant additions reflected in customer rates are not in-service by the end of the rate year (i.e., 12 months following the effective date of new rates); and

4) Utilities using future test years should be ordered to provide ongoing variance analyses to document differences between actual revenue, expense and capital cost results and the projected cost amounts used to set rates, as well as the major reasons for the differences.

NEW TAX LEGISLATION

Q. What is the *Tax Cuts and Jobs Act of 2017* (TCJA)?

A. The TCJA is a federal law enacted last month that significantly changes current tax policy for individuals and corporations. For corporations (including investor-owned utilities such as MAWC), among other provisions the TCJA lowers the federal corporate income tax rate from 35% to 21%, and eliminates the availability of "bonus" tax depreciation deductions.

Q. What impact on the State's major utilities does Staff expect the TCJA to have?

A. Staff expects the TCJA to result in a lowering of revenue requirement in a material amount for large Missouri utilities, all other things being equal.

Q. Has the Commission taken any steps to examine the impacts of the TCJA on Missouri utilities?

A. Yes. At Staff's request, the Commission recently opened an investigatory docket (Case No. AW-2018-0174) to examine TCJA impacts on Missouri utilities. As a first step in that case, all Missouri major utilities (including MAWC) have been ordered to respond to several questions regarding TCJA financial and rate impacts by January 31, 2018. Staff is then ordered to file a report on February 15, 2018 concerning the utilities' responses and Staff's recommendation as to how the Commission should proceed in handling TCJA rate impacts.

Q. Are TCJA impacts known and measurable in the context of MAWC's current rate case?

A. Yes. The TCJA is effective January 1, 2018. The true-up period in this rate case runs through December 31, 2017. The tax law change is effective concurrent with the end of the true-up period in this case.

Q. Does Staff recommend that TCJA impacts be reflected in MAWC's customer rates resulting from this case?

A. Preliminarily, yes. The true-up testimony filings and hearings would be the appropriate time and forum to consider issues regarding appropriate quantification of the TCJA impacts on MAWC. However, Staff is not taking a final position on rate treatment of TCJA impacts in this proceeding until after it has had an opportunity to review, at a minimum, MAWC and other utilities' filings in Case No. AW-2018-0174 made on or before January 31, 2018 regarding the effect of the TCJA on Missouri utility cost of service.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	)))))	Case No. WR-2017-0285

AFFIDAVIT OF MARK L. OLIGSCHLAEGER

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW MARK L. OLIGSCHLAEGER and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Rebuttal Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Mark L. Oligschlaeger

MARK L. OLIGSCHLAEGER

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 16th day of January, 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

D. Suzie Mankin

Notary Public

Missouri Public Service Commission

Respond Data Request

Data Request No.	0211
Company Name	Missouri-American Water Company-(Water)
Case/Tracking No.	WR-2017-0285
Date Requested	11/16/2017
Issue	General Information & Miscellaneous - Test Year/True-Up Issues
Requested From	Brian LaGrand
Requested By	Jacob Westen
Brief Description	Annual Budget Process
Description	Does MAWC utilize any inflation/escalation index factors in determining its budgeted expense levels contained within its annual ten-year operating and capital budgets? If so, please identify the index used and the expense items to which indexing applies. DR requested by Mark Oligschlaeger (Mark.Oligschlaeger@psc.mo.gov).
Response	Yes. Year one of the Company's operating plan is developed by a detailed "bottoms-up" estimate from functional leaders where they identify resources required, by month, to optimally operate their area of responsibility. Once the year-1 operating plan is complete, the outer years budget (years 2-10) is developed using high-level assumptions to inflate or deflate cost and revenue drivers on a year over year basis and to capture capital spend by project type. The inflation factors used are not tied to a published index. Responsible Witness: Andrew Clarkson
Objections	NA

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **WR-2017-0285** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Missouri-American Water Company-(Water)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Missouri-American Water Company-(Water)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

Schedule MLO-r1