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Usage
Witness: James A. Busch
Sponsoring Party: MO PSC Staff
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MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF

SURREBUTTAL TESTIMONY

OF

JAMES A. BUSCH

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2015-0301

*Jefferson City, Missouri
March 2016*

1 method did not take into account weather. Specifically, on page 4, lines 3 – 8, Mr. Roach
2 states that if the period chosen by Staff is warmer than normal, then sales/revenues would
3 be overestimated for the test year and set at a higher than weather normalized level, and
4 the opposite if the weather is cooler than normal. Please comment.

5 A. Mr. Roach’s comments are not consistent with previous MAWC
6 testimony. For instance, MAWC witness Dunn, in his direct testimony in this case, states
7 on page 16, lines 4 – 5, that “[i]n fact, ‘weather’ is difficult to even define in a statistical
8 sense, and establishing ‘normal’ weather is even more difficult.” Further, in previous
9 cases, MAWC has indicated that it is not simply hotter or colder weather
10 that influences water usage, but precipitation and overall drought conditions.
11 In Case No. WR-2010-0131, MAWC hired Dr. Edward L. Spitznagel, Jr. to discuss the
12 impacts of drought, precipitation, and month as useful predictors for usage, but
13 temperature was not (Spitznagel Direct, page 4, lines 11 – 22, page 5, lines 1 – 5). Based
14 on MAWC’s testimony in this case and in previous cases, the statement made by
15 Mr. Roach in this case that temperature variances could lead to distorted sales/revenues
16 is unfounded.

17 Q. On page 4, lines 8 – 13, Mr. Roach states that Staff’s method fails to
18 identify the inherent declining usage trend. Do you agree?

19 A. No. Staff’s method identifies customer usage patterns that are relevant to
20 establishing normalized usage today. Staff’s method does not compare or even
21 contemplate customer usage patterns from 10, 20, or 30 years ago. Staff looks at usage
22 patterns over the past five years and determines that over the next three to four years, the
23 general timeframe between MAWC’s rate cases, usage patterns will be similar.

1 MAWC's method on the other hand looks at usage going back at least ten years and tries
2 to indicate that any trends that started then will remain the same. If, as MAWC argues,
3 usage is declining, the level of usage from ten years ago is not relevant to usage patterns
4 today. Further, Staff's method examines how customers actually consumed water over
5 the past five years, years that have included hotter weather, cooler weather, wetter
6 weather, and drier weather. Staff does not try to normalize all of the various factors that
7 impact usage, instead focusing on actual consumer usage as provided by MAWC.

8 Q. On page 4, line 19, Mr. Roach used a simplistic mathematic example of
9 averaging. Please comment.

10 A. Using Mr. Roach's example of counting backward from 12 to 8, the next
11 number in that sequence is 7. And if you add 8, 9, 10, 11, and 12 and divide by five, the
12 answer is 10. Staff cannot disagree with Mr. Roach's calculation. However, customer
13 usage is not as simplistic as his example. From one year to the next, customer usage may
14 be higher or lower, based on a myriad of factors. Whereas a trend analysis is good at
15 picking up trends over large periods of time, when the data fluctuates like customer usage
16 an average over a very recent period can smooth out the ups and downs and can give a
17 more reasonable estimate of usage for the next couple of years.

18 Q. Mr. Roach spends a significant amount of time going over weather data
19 going back to 1975. Please comment.

20 A. Mr. Roach dismisses Staff's method since it is an average, but uses
21 a 40-year average of cooling degrees days to show that Staff's timeframe is inappropriate.

1 However, when trying to show that Staff’s usage of the past five years of usage is
2 wrong because Staff’s method uses a timeframe with warmer than “normal” weather,
3 MAWC ignores recent weather trends.

4 Q. What does Staff mean by recent weather trends?

5 A. Looking at data supplied by MAWC as Mr. Roach’s workpapers, this
6 weather trend can be observed. Mr. Roach provides data that shows when you compare
7 cooling degrees days over the 40-year timeframe, there were 13.1% more cooling degree
8 days over the past five years than the longer time frame. However, if you look at the data
9 over the last ten years, the increase drops to just 4.5%.

10 Q. What other issues does Staff have with Mr. Roach’s use of 40-years of
11 temperature data?

12 A. Staff has two other issues with Mr. Roach’s approach. As noted earlier,
13 Staff, and MAWC in previous testimony, disagrees with Mr. Roach that temperature is
14 the sole weather factor in the determination of customer usage. Precipitation plays a
15 more significant role in usage than temperature and Mr. Roach ignores this very
16 important fact. Another issue is the use of a 40-year timeframe. To determine “normal”
17 weather, the National Oceanic and Atmospheric Administration (“NOAA”) uses
18 a 30-year normal. It does not make sense that Mr. Roach would use a longer time period
19 to determine “normal” weather. However, if the weather is warmer now than it was in
20 the ‘70s, as Mr. Roach points out and the data indicates, Staff believes that for
21 determining a water utility’s customer usage using a timeframe with recent weather data
22 is more likely to be more accurate than any other method.

1 Q. When stating that the weather is significantly warmer, did Mr. Roach's
2 analysis look at the entirety of MAWC's service territory?

3 A. No. Mr. Roach only looked at data in the St. Louis area. However, the
4 weather in St. Louis is not likely to be the same as weather in St. Joseph or Joplin.

5 Q. Staff mentions that precipitation is a more significant factor to determine
6 water usage than merely temperature. Is there any information regarding precipitation
7 over the 40-year period that Mr. Roach utilized?

8 A. Yes. In Mr. Roach's workpapers, there is a column labeled "total
9 precipitation." Whereas Mr. Roach rightly points out that cooling degree days over the
10 past five years are 13.1% greater than the 40-year average, he leaves out that the
11 precipitation average was also 9.8% greater over the last five years compared to
12 the 40-year average.

13 Q. After reading Mr. Roach's rebuttal, would Staff use a different approach
14 to establish normal usage?

15 A. No. After reading Mr. Roach's rebuttal testimony, Staff is even more
16 confident that using a five-year average is the most appropriate method for establishing
17 normal usage for establishing rates in this case. Staff's method takes into account all of
18 the variables discussed above, making it the most reasonable method that provides the
19 Commission the best data to base rates on.

20 Q. Starting on page 11 of his rebuttal testimony, Mr. Roach begins to discuss
21 other parties' concerns regarding the Company's usage data. Then on page 12,
22 Mr. Roach writes, "[t]he Commission Staff and OPC specifically cited a supposedly

1 'erroneous' residential usage per customer value for June 2013 as being 'suspicious' and
2 'unreliable.'" Where did Staff bring up these concerns?

3 A. In reviewing Staff's report and direct testimony, Staff never mentioned
4 "erroneous," "suspicious," or "unreliable" values for June 2013.

5 Q. Has Staff learned information regarding MAWC's usage data since filing
6 rebuttal testimony that may indicate that there are real concerns regarding MAWC's
7 recent usage data?

8 A. Yes.

9 Q. What has Staff learned?

10 A. Staff recently learned, during meetings on February 22 and February 25,
11 2016 that MAWC had a major issue with defective water meters. Staff was informed
12 that a significant number of the meters used by MAWC either failed completely and/or
13 were providing inaccurate meter reads for some period of time. Staff has submitted
14 numerous data requests to fully grasp the extent of the problem. The responses to those
15 DRs will not be available to be completely reviewed until after surrebuttal is filed, due to
16 the timing of this new information. However based on conversations held between
17 MAWC, Staff, and Public Counsel, MAWC has acknowledged that of an approximately
18 97,000 meters that MAWC put into service, a certain percentage of them failed
19 completely and were providing inaccurate readings and approximately 22,000 of these
20 meters were removed from service.

21 Q. How would this problem impact customer usage levels?

22 A. When asked, MAWC personnel indicated that if a meter was removed due
23 to complete failure, MAWC used its estimation procedures to back bill for the period that

1 the meter failed. However, if the meter was only reading inaccurately, MAWC did not
2 make any adjustments.

3 Q. If a meter read inaccurately, what does that mean?

4 A. Inaccurate meters read slower than normal. Thus, if a customer's actual
5 usage was 5,000 gallons, an inaccurate meter would read less than 5,000 gallons.

6 Q. Of the meters that failed completely, did any of those read inaccurately
7 prior to failure?

8 A. At this time, Staff does not know the answer to that question. Staff has
9 submitted a DR to find out the answer and is awaiting a response.

10 Q. Does this additional information affect Staff's recommendation regarding
11 use of a five-year average for determining normal customer usage?

12 A. No. In fact, this new information further strengthens Staff's method as the
13 most appropriate method. MAWC is relying on inaccurate data to show a trend in usage.
14 The inaccurate data would skew the results of MAWC analysis even further by using data
15 that has inaccurate lower reads than actual consumer consumption. Staff is not aware of
16 the full extent of this problem, but any reliance on MAWC's method based on this
17 erroneous data is not in the public interest. Staff's method also uses this data, but
18 averaging the data smooths the lower usage and minimizes the risk to ratepayers in
19 relying on faulty data and trends. MAWC's method, on the other hand, becomes an even
20 more severe risk.

21 Q. Does this additional information affect Staff's recommendation regarding
22 MAWC's proposed Revenue Stabilization Mechanism ("RSM")?

1 A. No. In addition to the reasons provided in Staff's rebuttal testimony, this
2 new information actually provides additional support against the implementation of an
3 RSM. For an effective RSM, it is crucial that there be accurate data to create a viable
4 program and accurate data to ensure that the mechanism is working properly. MAWC
5 has not shown the ability to ensure that the customer usage data is accurate enough to rely
6 upon to implement a new regulatory scheme that will fundamentally change the
7 ratemaking paradigm, such as its RSM recommendation.

8 **Consolidated pricing**

9 Q. Have you read the testimonies of Public Counsel witness Marke and
10 MIEC witness Collins?

11 A. Yes, I have.

12 Q. Do both of these witnesses oppose Staff's rate design proposal of
13 consolidating MAWC's water districts into three districts?

14 A. Yes.

15 Q. Do both witnesses make similar arguments against Staff's proposal?

16 A. Yes.

17 Q. What is the major argument that both witnesses make?

18 A. The major argument used by both Dr. Marke and Mr. Collins is the
19 principle of cost causation.

20 Q. Generally, what is meant by cost causation?

21 A. Cost causation means that those customers who cause the costs should be
22 the customers to pay for them.

1 Q. Is cost causation the only factor the Commission should use to determine
2 just and reasonable rates?

3 A. No. There are many factors that the Commission considers when
4 determining just and reasonable rates.

5 Q. Does Staff's proposal violate the principle of cost causation?

6 A. No.

7 Q. Please explain.

8 A. Public Counsel and MIEC make the argument that the seven large
9 districts, which have remained independent with regard to rates, have their own specific
10 costs. However, most of the costs of providing service to all of MAWC customers are
11 very similar, if not the same, from district to district.

12 For example, MAWC will have a cost of capital approved in this case.
13 This cost of capital is the same for all of MAWC's districts. MAWC buys various
14 supplies for the repair and replacement of mains, meters, etc. MAWC pays the same for
15 those products regardless if MAWC uses them in St. Louis or in Lake Taneycomo. The
16 management of MAWC receives a salary. That salary remains the same for all of
17 MAWC's customers. MAWC provides a customer service function to all customers and
18 those costs are the same regardless of the location of the customer. The only difference is
19 how these costs are allocated, and the allocation process is much more art than science.

20 One area where costs may not be equal is labor. Employees who work in
21 the various districts may actually receive different pay. This could be due to union
22 contracts or other factors that impact salaries in the different areas that MAWC operates.
23 It is because of these inherent differences in pay that Staff proposes to consolidate into

1 three districts rather than have one single-tariffed rate. Thus, Staff's proposal does
2 support the principle of cost causation as well as creating a rate that will be just
3 and reasonable.

4 Q. What is the real argument that Public Counsel and MIEC are making?

5 A. Their real argument is that since a customer in Joplin does not receive
6 water from the St. Louis treatment facility, the costs must be different. For the majority
7 of costs, that simply is not the case. Even when it comes to the actual costs of the
8 facilities, it is not as if one district gets a nicer facility than another district. The major
9 difference in facilities is based on source of supply and the number of customers that will
10 be served. Staff's proposal takes those issues out of the equation.

11 Q. If a facility is built in Mexico, why should any of those costs be shared
12 with customers in Jefferson City?

13 A. As stated earlier, many costs are already shared. In addition, spreading
14 costs out to a larger customer base will help avoid rate shock to customers. Finally, all
15 utilities have rates that are based on infrastructure that does not provide service or benefit
16 to all customers.

17 Q. What does Staff mean when it states that all utilities have rates that are
18 based on infrastructure that does not provide service or benefit to all customers?

19 A. For example, Ameren Missouri has one rate for all of its residential
20 customers regardless of where those customers live. These customers live in widespread
21 areas of Missouri including the St. Louis area, the Bootheel region, central Missouri, and
22 northwest Missouri. The general reason why there is a single-tariff rate is that electricity
23 is generated from various facilities and the entire service area is interconnected.

1 However, what happens when an ice storm hits a portion of St. Louis? There is damage
2 to the infrastructure in that area that Ameren Missouri must repair. Those repairs are then
3 built into Ameren's rates at some time in the future. Thus a customer in Jefferson City is
4 paying for the repair of facilities in St. Louis due to an event that only impacted
5 the St. Louis area, even though the Jefferson City customers did not cause the costs and
6 do not benefit from the costs. Staff's proposal for MAWC is similar to that concept.

7 Q. How do customers feel about consolidated pricing?

8 A. As Staff mentioned in rebuttal testimony, customers are generally mixed
9 about the concept. However, one common theme that Staff hears when it travels to
10 various local public hearings for any water or sewer utility rate increase is how the rates
11 for their utility compare to rates of their neighbors who receive service from a different
12 utility. Thus, when it comes to reasonable rates, customers look at other nearby utilities
13 in their area as one way to ascertain how reasonable their rate is. Staff's proposal creates
14 a uniform rate in a general area that will not only be just but will also be reasonable while
15 adhering to the general principle of cost causation.

16 Q. Starting on page 4, lines 15 and continuing on page 5, lines 1 – 8,
17 Dr. Marke states, “[i]f rate continuity is to be championed by the proponents of
18 consolidation for purposes of this case, then it stands to reason that some district is
19 subject to rate shock, and this change to districts is necessary to avoid rate shock.” Does
20 Staff have a comment?

21 A. Yes. Now is the perfect time to consolidate rates when no one district is
22 likely to experience rate shock. Staff is very cognizant of how some customers view the
23 idea of consolidating rate districts. If the Commission were to wait until one district was

1 on the verge of experiencing rate shock, then the outcry from the other districts would be
2 very vocal and the movement toward consolidation would be harder to justify. Thus,
3 consolidating rates now is an opportune time.

4 Q. On page 6, Dr. Marke questions if consolidated pricing will incentivize the
5 acquisition of struggling water systems. Did Staff identify inaccuracies in some
6 of Dr. Marke's statements?

7 A. Yes. The first inaccurate statement can be found on, lines 12 and 13,
8 when he writes, "[f]irst, it is important to remember that there was already a considerable
9 amount of district consolidation that occurred in the last rate case (thirty to eight)."

10 Q. Why is this statement inaccurate?

11 A. While there was some consolidation, it was not to the magnitude described
12 by Dr. Marke. There were not 30 water districts that were consolidated into
13 eight districts. There were 17 water districts that were consolidated. Seven of those
14 districts remained independent through district-specific pricing. The other ten districts
15 were included in District 8, but within District 8, the service areas were still separated by
16 commodity charge, with two remaining on fixed rates as Staff discussed in its rebuttal
17 testimony. Thus, there are actually eleven districts, not eight.

18 Q. Does Dr. Marke make any other inaccurate statements?

19 A. Yes. On lines 14 – 16, Dr. Marke writes, "[s]econd, it is OPC's
20 understanding that the current number of small, privately-owned water and wastewater
21 companies in receivership is already historically small (only three companies with an
22 approximate total of 500 customers)." This is not correct.

1 There are two inaccuracies in Dr. Marke’s statement. The first inaccuracy is the
2 number of firms and customers in receivership. Currently, there are seven systems
3 operating under control of a receiver. Combined, these seven systems have
4 approximately 1,000 customers. There was another firm under receivership as well, but
5 MAWC was recently approved to take ownership of that system.

6 The second inaccuracy is Dr. Marke statement that the number of companies in
7 receivership is “historically small.” Staff does not know what data Dr. Marke is
8 comparing today’s number of companies in receivership with to be able to suggest that
9 today’s number is “historically small.” The receivership statute went into effect in the
10 early nineties. Through the nineties into the early ‘00s, there were only two companies
11 that were placed into receivership compared to the seven that are currently in
12 receivership.

13 Q. Continuing on page 6, lines 17 – 19, Dr. Marke states that the situation is
14 improving. Does Staff agree that the situation is improving?

15 A. No. Staff is assuming that Dr. Marke’s suggestion that the “situation is
16 improving” is in response to his mistaken view that there are less companies in
17 receivership today than in some point in the past.

18 Q. Should the Commission only look at the issue of consolidated rates
19 through the narrow spectrum of companies that are in receivership?

20 A. Not at all. If consolidated pricing allows for MAWC or other entities to
21 acquire troubled systems to keep them out of receivership, then consolidated pricing is a
22 favorable change that could provide benefit to Missouri citizens without any undue
23 burden or cost.

1 Q. On page 6, lines 20 and 21, Dr. Marke states that he is highly doubtful that
2 approval of further consolidation will send market signals to outside utilities to invest in
3 Missouri. Does Staff have a comment on this opinion?

4 A. Yes. Staff spends a significant portion of its time speaking with owners
5 and management of many water and sewer utilities. This time includes entities that are
6 currently providing service in Missouri, entities that have exited the water and sewer
7 business in Missouri, and entities that are interested in coming to Missouri. Through
8 these interactions, Staff has been made aware that consolidated pricing is a major
9 consideration in the decision to own and operate systems in Missouri and on whether or
10 not to expand. It is Staff's opinion, based on its years of experience, that a move toward
11 further consolidation will send a positive signal to those companies.

12 Q. On page 7, lines 1 – 8, Dr. Marke briefly discusses his opinion that
13 moving to consolidated pricing will give MAWC some sort of unfair advantage to
14 purchase larger municipal systems, more so than purchasing small struggling private
15 systems. Does Staff have a comment on this opinion?

16 A. Yes. MAWC's actual behavior is different from what Dr. Marke's
17 statement suggests. On the one hand, over the past few years, MAWC has acquired only
18 one municipal system, the City of Arnold's sewer operations. In this proceeding, MAWC
19 proposes to consolidate all of its sewer operations into one district, with the exception of
20 the Arnold district, which would remain on its own. On the other hand, MAWC has
21 purchased many small, privately owned water and sewer systems. MAWC has purchased
22 the Hickory Hills system just outside of California, a system that was in receivership and
23 in violation of DNR rules and regulations. It has purchased systems named

1 Anna Meadows, Redfield, Emerald Pointe, and Saddlebrooke, among others. All were
2 relatively small and had various levels of need. MAWC may want to expand into larger
3 municipal systems, but the fact is that right now it spends more time and resources
4 purchasing and operating smaller systems to the benefit of those ratepayers.

5 Q. Finally, on page 7, lines 9 -17, of his rebuttal, Dr. Marke discusses the
6 potential for reduced rate case expense is minimal. Does Staff have a comment?

7 A. Yes. Dr. Marke is referring to the Class Cost of Service (“CCOS”) study
8 only. Staff’s work in a MAWC rate case is much greater than any CCOS study or
9 handful of CCOS studies. Before Staff can even start a CCOS study, Staff’s auditors
10 must perform an audit on over 30 separate systems. This is a labor intensive endeavor.
11 Once that is accomplished, then Staff can focus on performing CCOS studies, another
12 labor intensive endeavor. Staff’s work does not include all of the time and effort that
13 MAWC must expend on these functions as well. Therefore, to have Public Counsel
14 dismiss Staff and MAWC’s efforts to reduce expense for ratepayers as having a minimal
15 effect is not an accurate characterization.

16 Q. Turning to MIEC’s testimony, throughout Mr. Collins’ testimony,
17 he argues that Staff’s approach will mean that low-cost districts will be subsidizing
18 high-cost districts. Does Staff agree with this argument?

19 A. No. As noted in rebuttal testimony, Staff’s proposal does not necessarily
20 lead to subsidies from one district to another. To be certain that a subsidy was being
21 provided, one must know the exact cost of providing service to each given district.
22 As was discussed earlier in this testimony, many of the costs are not directly assignable,
23 but must be allocated. Therefore, no one knows the true cost of providing service.

1 Finally, Mr. Collins does not explain which districts are the higher cost districts and
2 which ones are the lower cost districts. He is making an assumption based on rate, which
3 is as much a function of customer base as a function of cost.

4 Q. On page 6, lines 5 – 19, Mr. Collins responds to Staff’s reasoning that
5 moving toward consolidated pricing would encourage utilities to purchase water and
6 sewer systems in Missouri. Does Staff have a comment?

7 A. First, on lines 6 and 7, Mr. Collins states that, “Staff’s proposal to use
8 consolidated pricing to accomplish this acquisition objective, without any restrictions on
9 the acquisition price of acquired systems, is very troubling.” Staff never makes the claim
10 that there should be no restrictions on purchase prices. In acquisition cases filed by
11 MAWC or any other entity, Staff reviews the rate base of the selling utility and makes its
12 recommendation to only include the value of rate base in rates. If MAWC or any other
13 utility decides to pay more, that is the prerogative of that entity, but Staff will not and has
14 not recommended that any excess price be allowed in rates. Staff is not familiar with any
15 case where the Commission approved a sale amount for inclusion in base rates that was
16 above rate base. The suggestion that Staff is willing to accept any acquisition price is
17 incorrect.

18 Q. What is the next comment that Staff would like to address?

19 A. In his next sentence, Mr. Collins “strongly encourages” the Commission to
20 consider applying criteria on the acquisitions. However, he does not espouse those
21 criteria.

22 Q. What is the next comment that Staff would like to address?

1 A. On lines 15 – 18, Mr. Collins states, [i]t is not reasonable for the acquiring
2 utility simply to purchase systems at unreasonable acquisition prices with the expectation
3 that the acquisition price will be subsidized by existing water districts.” As noted earlier
4 in this testimony, the only price that is built in for recovery is the amount of rate base. To
5 make the claim that a utility would pay more for a system in the hope that other water
6 districts will subsidize the purchase price is baseless.

7 Q. What is the final comment that Staff would like to address?

8 A. Finally, Mr. Collins states that the acquisition price should be limited to
9 support reasonable prices. There is no need to limit the acquisition price because the only
10 amount included in rates is the value of rate base.

11 Q. Does Staff have any final thoughts on Mr. Collins’ overall statements
12 regarding acquisitions?

13 A. Yes. Based on his statements, Mr. Collins would have the Commission
14 believe that MAWC and other utilities are paying unreasonable amounts for the systems
15 they have purchased or will purchase in the future and that Staff, Public Counsel and the
16 Commission will allow unreasonable acquisition prices into rates. As a result, other
17 districts will subsidize those unreasonable prices. As explained, Mr. Collins’ statements
18 are inaccurate.

19 Q. Will Staff update its CCOS with true-up data?

20 A. Yes. Auditing Staff is finishing the cost of service studies at this time.
21 Once Staff finalizes the accounting schedules, Staff will prepare new CCOS studies and
22 Staff will distribute them to the parties. Staff is hopeful to have those ready for
23 distribution by Friday, March 11, if not sooner.

Surrebuttal Testimony of
James A. Busch

1 Q. Does this conclude your surrebuttal testimony?

2 A. Yes it does.

