

ILLINOIS COMMERCE COMMISSION

DOCKET 09-0319

IAWC EXHIBIT 13.00R2

**REBUTTAL TESTIMONY OF
J. ROWE MCKINLEY**

ILLINOIS-AMERICAN WATER COMPANY

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**REBUTTAL TESTIMONY
OF
J. ROWE MCKINLEY**

I. WITNESS INTRODUCTION

Q1. Please state your name and business address.

A. My name is Jennings Rowe McKinley II and my business address is 11401 Lamar Avenue, Overland Park, Kansas 66211.

Q2. Are you the same J. Rowe McKinley who previously filed testimony in this proceeding?

A. Yes I am.

II. PURPOSE OF REBUTTAL TESTIMONY

Q3. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to IIRC witness Gorman’s testimony regarding the application of capacity factors determined in IIRC’s Exhibit 13.01 (Revised), the *Report on Capacity Factors by Customer Class for the Illinois-American Water Company* (“Demand Study”). The Demand Study was subsequently revised, as discussed in IIRC Exhibit 13.00R1 and provided as IIRC Exhibit 13.01R1 (the revised version is identified in my testimony as the “Revised Study”).

III. RESPONSE TO IIRC WITNESS GORMAN

Q4. Does Mr. Gorman express a concern regarding the capacity factors study?

A. Yes. Mr. Gorman, at pages 4 and 72-74 of his direct testimony, asserts that the Company did not provide updated capacity factors that reflect the new proposed Rate Zone 1 or Rate Zone 1 with Champaign. Mr. Gorman states that “the

27 capacity factor study produced by Black & Veatch ... stated that it estimated
28 capacity factors by customer class for six water rate areas consisting of: (1)
29 Southern, Peoria, Streator, Pontiac, South Beloit (SPSPSB); (2) Champaign; (3)
30 Chicago Metro; (4) Lincoln; (5) Pekin; and (6) Sterling. (Exhibit No. 13.01,
31 page 1).” He also asserts “Black & Veatch did not measure capacity factors for
32 Rate Zone 1, nor Rate Zone 1 with Champaign”, and as such, “the Company’s
33 cost of service study suffers from the same flaws that its cost of service study did
34 in the last case.”

35 **Q5. Do you agree with his assertions?**

36 **A.** No. IAWC has provided the Demand Study that includes capacity factors for
37 each district for which a rate increase is sought (in accordance with a
38 methodology that was approved by the Commission, as I discuss in my direct
39 testimony). The Docket 07-0507 order (page 121) that Mr. Gorman refers to
40 stated: “As an initial matter, in Docket 02-0690, the Commission directed IAWC
41 to provide updated demand [capacity] factors for each district for which a rate
42 increase is proposed in its next rate case.” Thus, it is clear that the customer
43 class capacity factors that the Commission sought were those for districts in
44 which a rate increase was sought, not “pricing areas” as Mr. Gorman alleges.
45 The fact that IAWC proposes to consolidate some of those districts into rate Zone
46 1 for rate design purposes (namely, moving towards the goal of single tariff
47 pricing), does not change the fact that the appropriate approach was to develop
48 capacity factors for each district. Moreover, as discussed below, Mr. Gorman’s
49 concerns, although unwarranted, are easily addressed. Actual demand data for

50 SPSPSB, Sterling, and Champaign (the components of Zone 1 and Zone 1 with
51 Champaign) was utilized in the Demand Study. The Demand Study contains
52 sufficient information in Tables 2, 2a and 2b to determine revised cost allocation
53 factors for SPSPSB, Zone 1 and Zone 1 with Champaign rate areas. This data
54 can be combined and appropriately weighted in order to produce both cost
55 allocation factors and capacity factors by customer class for the new Zone 1 and
56 the proposed Zone 1 with Champaign.

57 **Q6. Does Mr. Gorman have further criticism of the Demand Study?**

58 **A.** Yes. He asserts that the Company's cost of service study suffers from the same
59 flaws that the cost of service study did in the last case.

60 **Q7. Do you agree?**

61 **A.** No. The Commission's concern with the cost of service study in the last case was
62 that the demand study on which it was based only reflected data obtained from
63 one district, Interurban. The Commission stated it was "not convinced that the
64 demand factors for the Interurban District are reasonable proxies for the demand
65 factors in IAWC's remaining districts" (Docket 07-0507 Order, page 121). This
66 concern is not present here. IAWC's Demand Study utilizes actual historical
67 system and billing data from all of IAWC's service areas to develop capacity
68 factors for each district, in accordance with a Commission-approved
69 methodology. Thus, Mr. Gorman's concerns are unjustified.

70 **Q8. Have you developed weighted average system demand ratios for Zone 1**
71 **and Zone 1 with Champaign?**

72 **A.** Yes. Actual demand data for SPSPSB, Sterling, and Champaign (the
 73 components of Zone 1 and Zone 1 with Champaign) was utilized in the Demand
 74 Study. This data was combined and appropriately weighted in order to produce
 75 both cost allocation factors and capacity factors by customer class for the new
 76 Zone 1 and the proposed Zone 1 with Champaign as summarized in Table 1
 77 below. As shown by Table 1, the cost allocation factors do not significantly
 78 change between the various rate area configurations, even though revisions to
 79 the Demand Study have recently been made to recognize updated system
 80 operating data related to system maximum month demands.

Table 1
Comparison of Weighted Average Cost Allocation Factors
for Alternative Rate Area Configurations

Line No.	Description	SPSPSB (a)	Revised SPSPSB (b)	Zone 1	Zone 1 with Champaign
1	Max Day/Average Day Ratio	1.472	1.464	1.465	1.489
2	Max Hour/Average Day Ratio	1.743	1.730	1.737	1.752
	Maximum Day Allocation				
3	Base	67.93%	68.31%	68.26%	67.16%
4	Maximum Day	32.07%	31.69%	31.74%	32.84%
	Maximum Hour Allocation				
5	Base	57.37%	57.80%	57.57%	57.08%
6	Maximum Day	27.08%	26.82%	26.77%	27.91%
7	Maximum Hour	15.55%	15.38%	15.66%	15.01%

(a) As presented in Demand Study (IAWC Exhibit 13.01 (Revised), Tables 2 and 3).

(b) As presented in Revised Study (IAWC Exhibit 13.01R1, Tables 2 and 3) to
 adjust for updated system average day usage in the maximum month (ADMM)
 and revised maximum day usage for Cairo.

81 **Q9. Please describe Table 1.**

82 **A.** Table 1 shows the effect of combining the component areas of Zone 1 (SPSPSB
 83 and Sterling), and then the effect of adding Champaign to Zone 1 on system
 84 demand ratios and cost allocation factors for each reconfigured rate area. For

85 example, the SPSPSB column summarizes data from the Demand Study (IAWC
86 Exhibit 13.01 (Revised)), while the Revised SPSPSB column, the Zone 1 column,
87 and the Zone 1 with Champaign column summarize data from the Revised
88 Study, provided as IAWC Exhibit 13.01R1, to show the impact of recent
89 revisions. These revisions and refinements include: (1) modification of system
90 average day during the year's maximum month ("ADMM") shown in Tables 2, 2a,
91 and 2b of the Revised Study; (2) the impact that this revision has on the ratio of
92 system maximum day to ADMM ("MD/ADMM") or system variation shown in
93 Tables 2, 2a, 2b, and Table 8 of the Revised Study; (3) rounding the resulting
94 residential daily variation ("RDV") factors shown in Table 8 of the Revised Study
95 to the nearest five hundredths (± 0.05) instead of nearest one tenth (± 0.1) to
96 increase accuracy; (4) use of a revised maximum day value for the Cairo district
97 to eliminate the influence of a fire discovered to have occurred on the district's
98 2005 maximum day of usage; and (5) replacing the projected 2009 test year
99 annual usage with 2010 projected usage for purposes of calculating system
100 diversity factors.

101 Table 1 also shows the cost allocation percentages determined by application
102 of the MD/AD and MH/AD weighted average values. As indicated, only minor
103 changes in allocation percentages resulted from the combining of SPSPSB and
104 Sterling into Zone 1, while the potential addition of Champaign has a greater
105 impact. However, the resulting change in cost allocation percentages is still
106 relatively minor when compared to the Revised SPSPSB allocation percentages.

107 **Q10. How were Sterling and Champaign combined with SPSPSB to develop**
108 **Zone 1 and Zone 1 with Champaign?**

109 **A.** The weighted average maximum day to average day (“MD/AD”) and maximum
110 hour to average day (“MH/AD”) demand ratios for Zone 1 and Zone 1 with
111 Champaign shown in Table 1 were determined in the same manner as the ratios
112 for SPSPSB. The weighted average MD/AD for SPSPSB is simply the sum of
113 the maximum day values of each SPSPSB district shown on Line 5 of Table 2a in
114 the Revised Study divided by the sum of average day pumpage shown on Line 2
115 of Table 2a or **1.464** ($120.447 / 82.284$). To determine the impact of adding
116 Sterling to the SPSPSB rate area to form a Zone 1 rate area, the maximum day
117 and average day values are added to those for SPSPSB to derive the **1.465**
118 MD/AD ratio ($((120.447 + 2.448) / (82.284 + 1.632))$) shown in Table 1. Likewise,
119 the impact of including Champaign in Zone 1 produces a weighted average
120 MD/AD ratio of **1.489** ($((122.895 + 33.320) / (83.916 + 21.004))$).

121 The same procedure used to determine the weighted average MD/AD
122 relationships for SPSPSB, Zone 1 and Zone 1 plus Champaign was also used to
123 determine weighted average MH/AD ratios. The weighted average MH/AD ratio
124 for SPSPSB was determined from the Revised Study to be **1.730** ($142.390 /$
125 82.284) which is the sum of the maximum hour demands of each district divided
126 by the average day demands of each district. The MH/AD weighted average
127 value for Zone 1 is calculated by adding the maximum hour and average day
128 values for Sterling to the respective values for SPSPSB to derive the **1.737**
129 ($((142.390 + 3.363) / (82.284 + 1.632))$) weighted average MH/AD value for

130 Zone 1. The impact of including Champaign in Zone 1 derives a weighted
131 average MH/AD ratio of **1.752** $((145.753 + 38.041) / (83.916 + 21.004))$.

132 **Q11. Is there any material difference between weighted average system**
133 **demands in the Revised Study and weighted average system demands for**
134 **Zone 1 and Zone 1 with Champaign?**

135 **A.** No. The impact of adding Sterling to SPSPSB has a negligible impact on both
136 the SPSPSB MD/AD and MH/AD ratios. Adding Champaign to this relationship
137 has a somewhat more significant impact, but one that is only 1.6% greater than
138 the former Zone 1 MD/AD ratio and only 0.9% greater than the former Zone 1
139 MH/AD ratio.

140 **Q12. Is there any material difference between capacity factors in the Revised**
141 **Study and capacity factors for Zone 1 and Zone 1 with Champaign?**

142 **A.** No, the impact that the previously discussed revisions of the Demand Study and
143 the potential reconfiguration of rate areas have on the development of customer
144 class capacity factors is summarized in Table 2 below. As indicated by Table 2,
145 the relative changes between the various rate area configurations are minor and
146 are generally what one would expect when considering the relative average daily
147 usage and customer class capacity factors developed separately for SPSPSB,
148 Sterling, and Champaign in the Revised Study. As discussed by Mr. Herbert,
149 these changes do not materially impact the results of the cost of service study.

150 **Q13. Please describe how the customer class capacity factors shown in Table 2**
151 **were developed.**

Table 2
Comparison of Customer Class Capacity Factors
for Alternative Rate Area Configurations

Line No.	Description	SPSPSB (a)	Revised SPSPSB (b)	Zone 1	Zone 1 with Champaign
Weighted MD/AD Ratio					
1	Residential	205%	205%	205%	210%
2	Commercial	175%	180%	180%	180%
3	Industrial	155%	165%	165%	160%
4	Large Industrial	140%	140%	140%	140%
5	Other Public Authority	180%	190%	190%	185%
6	Large Other Public Auth.				165%
7	Other Water Utilities	190%	190%	190%	190%
Weighted MH/AD Ratio					
8	Residential	260%	265%	265%	260%
9	Commercial	205%	205%	205%	205%
10	Industrial	175%	180%	180%	170%
11	Large Industrial	150%	150%	150%	150%
12	Other Public Authority	195%	205%	205%	195%
13	Large Other Public Auth.				170%
14	Other Water Utilities	210%	205%	205%	205%
System Diversity Factors (2010 Test Year)					
15	Maximum Day	1.26	1.29	1.29	1.28
16	Maximum Hour	1.26	1.28	1.28	1.25

(a) As presented in Demand Study (IAWC Exhibit 13.01 (Revised), Table 19).

(b) As presented in Revised Study (IAWC Exhibit 13.01R1, Table 19).

152 **A.** They were developed in the same manner as those for the SPSPSB rate area.
153 In this case, the capacity factors developed for each district within the SPSPSB
154 rate area were applied to the average water usage for 2007 to develop total
155 maximum day and maximum hour non-coincidental demands for each customer
156 class. These demands were summed and divided by the sum of the average day
157 usage for each respective customer class to derive weighted average capacity
158 factors for each class.

159 The same weighted average SPSPSB procedure was followed for Zone 1
160 by applying the capacity factors determined for Sterling to the 2007 average day

161 usage for each respective class, adding those maximum day and maximum hour
162 class totals to the respective totals for SPSPSB and then dividing by total
163 average day usage for each respective class to derive the Zone 1 weighted
164 average capacity factors. A similar procedure was followed for the addition of
165 Champaign to Zone 1.

166 The resulting total non-coincidental maximum day and maximum hour day
167 demands were divided by the respective products of weighted average system
168 demands of the reconfigured rate areas times the total average day usage for
169 each respective rate area to derive the system diversity factors shown at the
170 bottom of Table 2. As indicated, these new system diversity factors all fall within
171 the 1.10 to 1.40 range deemed acceptable by the AWWA Manual M1.

172 **Q14. Mr. Gorman, at page 74 of his direct testimony, recommends that “the ICC**
173 **should again conclude that Illinois-American ‘does not have an accurate**
174 **estimate of the cost of serving each customer class’ in Rate Zone 1 with**
175 **Champaign.” Please address that recommendation.**

176 **A.** Although the Revised Study does not present customer class capacity factors for
177 Zone 1 or Zone 1 with Champaign as noted by Mr. Gorman, it presents customer
178 class capacity factors for the component districts of Zone 1. There is no
179 requirement that IAWC provide otherwise. Nevertheless, factors for Zone 1 and
180 Zone 1 with Champaign can easily be derived, as demonstrated in this testimony.
181 Since such updated capacity factors are now available for the potential new rate
182 areas referenced by Mr. Gorman (and these capacity factors do not materially

183 affect the results of the cost of service study), the basis for his recommendation
184 is not valid.

185 **Q15. Does this conclude your rebuttal testimony?**

186 **A.** Yes, it does.