

DIRECT TESTIMONY

of

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Rates Department  
Financial Analysis Division  
Public Utilities Bureau  
Illinois Commerce Commission

Illinois-American Water Company

Docket No. 07-0507

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## **INTRODUCTION TO TESTIMONY**

1 Q. Please state your name and business address.

2 A. Mike Luth, 527 East Capitol Avenue, Springfield, Illinois 62701.

3 Q. Please state your professional qualifications and work experience.

4 A. I received a B.S. in Accounting from Illinois State University. I have  
5 earned the C.P.A. and C.M.A. professional designations. Since  
6 graduating, I have worked as an Assistant Property Manager with a real  
7 estate company and as a Field Auditor with the Wisconsin Department of  
8 Revenue. In October 1990, I joined the Accounting Department of the  
9 Illinois Commerce Commission (“Commission”). In June 1998, I  
10 transferred from the Accounting Department of the Commission to the  
11 Rates Department.

12 Q. Have you testified in any previous Commission dockets?

13 A. Yes. I have testified on numerous occasions before the Commission.

### **Purpose of Testimony**

14 Q. What is the purpose of your testimony?

15 A. The purpose of my testimony is to address the filing by Illinois-American  
16 Water Company (“IAWC” or “Company”) which includes a request for a  
17 general increase in rates applicable to the Southern Area (“Southern”). I  
18 will be presenting testimony and exhibits concerning cost of service

19 (“COS”) and rate design issues pertaining to the Southern Area. The  
20 Southern Area includes services provided in the Alton, Cairo, Interurban,  
21 Peoria, Pontiac, South Beloit and Streator districts. I will also comment  
22 upon the overall status of the IAWC tariff sheets covering its service areas  
23 across the State of Illinois, and recommend that IAWC work with Staff to  
24 revise its tariff sheets to promote clarity and uniformity to the extent  
25 possible. Finally, I propose a sufficient period of time to allow a proper  
26 review of the revised rates and other tariff matters based upon the Order  
27 in this docket.

- 28 Q. Are you making any recommendations concerning the appropriateness of  
29 the total annual revenue requirement for the Company in this proceeding?  
30 A. No, I am not.

### **Summary of Testimony**

- 31 Q. Briefly summarize the major points of your testimony pertaining to rates.  
32 A. Generally, I do not recommend adoption of the Company’s rate proposals.  
33 The Company essentially proposes an across-the-board percentage  
34 increase in current rates. My proposals more closely align rates with the  
35 cost of service study (“COSS” or “cost study”) that I prepared rather than  
36 the Company’s rate proposals. Overall, I recommend smaller general  
37 increases in the fixed, monthly customer charges based upon meter size  
38 compared to the increases sought by the Company, and place more

39 emphasis on revenue recovery through the usage charges than the  
40 Company's rate proposals.

41 Q. Please explain how your testimony is organized.

42 A. First, I present the results of my embedded cost study. Next, I address  
43 rate design, discussing the proposals of the Company and my  
44 recommendations. Then, I comment upon the status of the IAWC tariff  
45 sheets, and last, I request a sufficient period time to allow an adequate  
46 review of revised tariffs that IAWC will file after the Commission issues its  
47 Order in this docket.

48 Q. Did you prepare any supporting schedules?

49 A. Yes, I prepared the following schedule:

ICC Staff Exhibit 7.1 Cost of Service Study

50 Q. Please explain the SPS, P, and SB suffixes to ICC Staff Exhibit 7.0,  
51 Schedule 7.1.

52 A. As mentioned previously, the Southern Area includes services provided in  
53 the Alton, Cairo, Interurban, Peoria, Pontiac, South Beloit and Streator  
54 districts; but rates in Pontiac and South Beloit are different from rates in  
55 the other Southern Area districts. For the purpose of determining the  
56 increase in rates that should be applicable to Pontiac and South Beloit, I  
57 have separated Pontiac and South Beloit cost information from the other  
58 Southern Area districts. The "P" suffix pertains to the Pontiac service

59 district, the “SB” suffix pertains to the South Beloit district, and the “SPS”  
60 suffix pertains to the remainder of the Southern Area, which includes the  
61 Alton, Cairo, Interurban, Peoria, and Streator districts.

62 Q. Briefly summarize Schedule 7.1

63 A. ICC Staff Exhibit 7.0, Schedule 7.1 presents my proposed rates and the  
64 development of the cost of service study underlying those rates.

65 Q. What test year is the Company proposing to use for cost of service  
66 purposes?

67 A. IAWC is proposing a projected future test year ending June 30, 2009.  
68 (IAWC Exhibit No. 4.00 (Revised), pp. 2-3, lines 43-45.)

### **EMBEDDED COST OF SERVICE STUDY**

69 Q. Briefly describe the importance of a COSS as the basis for determining  
70 rates for utility service.

71 A. A COSS is completed to allocate costs among all customer classes to  
72 determine each customer class' respective cost responsibility for the costs  
73 imposed on the utility by that specific customer class. A more detailed  
74 explanation of embedded cost studies and how costs are generally  
75 allocated is outlined in Appendix A attached to this exhibit.

76 Q. Did IAWC present a COSS in its filing?

77 A. No, it did not.

78 Q. What methodology did you use in preparing your COSS?

79 A. My COSS uses the Base-Extra Capacity method of cost allocation to  
80 distribute costs to customer classes. The Base-Extra Capacity method is  
81 the same as was employed and accepted by the Commission in Docket  
82 No. 02-0690, which was the last time a COSS for the Southern Area was  
83 approved. A further discussion regarding the Base-Extra Capacity method  
84 is provided in Appendix A attached to this exhibit.

85 Q. Please explain of your COSS, identified as ICC Staff Exhibit 7.0, Schedule  
86 7.1.

87 A. The calculation and summary of total revenues at the Company's present  
88 and proposed rates, and at my recommended rates, are set forth on ICC  
89 Staff Exhibit 7.1, pages 1 and 2.

90 The relative class cost-of-service figures, excluding Fire Protection,  
91 appear near the bottom of page 2 at the line, "Percent Cost of Service", for  
92 each customer class. For example, under my proposed rates in the  
93 Southern Division, the Residential class will provide revenues equal to  
94 101.7 percent of their calculated cost-of-service (ICC Staff Exhibit 7.0,  
95 Schedule 7.1-SPS, page 2).

96 The Demand Factors for Maximum Day ("Max Day") and Maximum Hour  
97 ("Max Hour") for customer classes and Fire Protection, and the million  
98 gallons per day ("MGD") pumpage and consumption numbers are listed on  
99 page 3 of the COSS. These factors represent the Max Day and Max Hour  
100 water usage relative to average usage. The Demand Factors allocate  
101 costs to the customer classes and to Fire Protection. The allocation  
102 amounts are on pages 11 and 12. The water usage and pumpage  
103 amounts in MGD are used to allocate plant in service and operation and  
104 maintenance ("O&M") expenses to the plant's Base use, Max Day and  
105 Max Hour functions.

106 Page 4 contains a numerical listing in percentages of cost allocation codes  
107 for the COSS. For example, an account assigned an allocation Code 3  
108 would be allocated 57.37 percent to Base Cost and 42.63 percent to Max  
109 Hour Cost.

110 Allocation of Net Plant in Service to the Base Cost, Max Day, Max Hour,  
111 Billing, Meters, Services, and Fire Protection categories is shown on  
112 pages 5 and 6. Page 6 also shows the percentage allocations for the Net  
113 Plant in Service categories. These percentages are then used to allocate  
114 Utility Operating Income, Other Taxes, and Income Taxes to the various  
115 plant functions on page 9.

116 The allocation of Total Revenue Requirement, (*i.e.*, total O&M,  
117 Depreciation, Other Taxes, Income Taxes and Utility Operating Income to  
118 the Base Cost, Extra Capacity, Customer Costs, and Fire Protection)  
119 according to function is shown on pages 7-10. The total revenue  
120 requirement is located at the bottom of page 9 on the line labeled  
121 "DIRECT CUSTOMER REVENUES". The "TOTAL REVENUES  
122 ALLOCATED TO SMALL MAINS", is on page 10. The Direct Customer  
123 Revenues and Total Revenues Allocated to Small Mains are included in  
124 the calculation of Cost of Service at the bottom of page 2.

125 The cost-of-service allocation percentages for the customer classes and  
126 fire protection are summarized on page 11. The allocation percentages  
127 are derived from annual consumption, the demand factors listed on page  
128 3, the number of monthly bills, and the number of monthly equivalent  
129 meters and services. For example, Residential usage in the Southern  
130 Area excluding Pontiac and South Beloit (suffix S/P/St.) is calculated to be  
131 23.276 MGD (calculated by converting the annual residential usage, found  
132 on page 2, to million gallons per day). That amount is 36.64 percent of  
133 total system usage. Therefore, 36.64 percent of total Base Cost is  
134 assigned to the Residential class. Multiplying the 220 percent Residential  
135 Max Day factor (from Schedule 7.1 - SPS, page 3 of 16) by the Average  
136 Day of 23.276 MGD produces the Residential Max Day usage of 51.207  
137 MGD. The difference between the Max Day and Average Day is the

138 Excess of 27.731 MGD for the Residential class. The Residential Max  
139 Day Excess MGD is 67.69 percent of the total Excess Max Day usage  
140 over Average Day usage, and is used to allocate the Residential share of  
141 total Max Day costs. Continuing on the same line for Residential  
142 customers, a similar approach is taken to determine the 61.56 percent  
143 Residential share of Max Hour costs.

144 The percent allocation of costs to the primary customer classes and Fire  
145 Protection, the total cost of service, and the cost of service to each  
146 customer class is shown on page 12. The calculation of Public Fire  
147 Protection and Private Fire Protection cost of service is presented on page  
148 13. Public Fire Protection Rates are calculated on page 14.

149 The number of equivalent meters and service lines and their capacity  
150 ratios are shown on page 15. Distribution of customer costs by equivalent  
151 meter and service ratios recognizes that meter and service costs vary,  
152 depending on considerations such as size of service pipe, materials used,  
153 locations of meters, and other local characteristics for various sized  
154 meters as compared to  $\frac{5}{8}$  inch meters and services. The number of  
155 equivalent meters and services (*i.e.*, which is based on meter ratios)  
156 assists in allocating costs assigned for recovery through customer  
157 charges. This is necessary to adjust the units of service for each  
158 customer class as indexed against the smallest meter size. Therefore,

159 customers are allocated a charge that reflects the costs associated with  
160 their particular meter size. Equivalent Meters and Services ratios are  
161 taken from the American Water Works Association Water Meters-  
162 Selection, Installation, Testing, and Maintenance Manual (M6) (1972),  
163 pages 32-33.

164 Depreciation expense according to plant account is presented on page 16  
165 of Schedule 7.1.

166 A brief description of COSS allocation codes appears on page 17 of  
167 Schedule 7.1.

168 Q. What is the source of the demand factors and million gallons a day  
169 pumpage numbers that you used in your COSS?

170 A. I obtained the class demand factors from IAWC Exhibit No. 11.01, pages  
171 I-4. The MGD numbers that I employed were provided in the Company's  
172 response to Staff Data Request ML 2.03. The Company did not provide  
173 pumpage data for South Beloit in its response to Staff Data Request ML  
174 2.03. In order to complete the South Beloit COSS, I divided the test year  
175 usage by 365 days to determine an average daily amount. For peak hour  
176 and maximum day volumes, I multiplied Pontiac figures by 0.733816 to  
177 develop reasonable estimates at South Beloit. 0.733816 represents the  
178 ratio of the average usage per bill at South Beloit compared to average

179 usage per bill at Pontiac in the test year. Average usage per bill was  
180 determined by dividing total test year usage by the number of monthly  
181 bills.

182 Q. How do the customer class demand factors affect the amount that  
183 customers pay?

184 A. A change in the customer class demand factors changes the amount of  
185 Max Day and Max Hour costs that a customer class pays, as shown on  
186 pages 11 and 12 of ICC Staff Exhibit 7.1. A lower Max Day and Max Hour  
187 demand factor reduces the amount of Max Day or Max Hour costs that a  
188 customer class pays. Conversely, a higher Max Day and Max Hour  
189 demand factor increases the amount of Max Day or Max Hour costs that a  
190 customer class pays.

191 Q. Did IAWC provide cost of service information specific to the Southern Area  
192 that excludes Pontiac and South Beloit from the overall totals?

193 A. For the most part, IAWC provided account-by-account information  
194 sufficient to separate Pontiac and South Beloit from the remainder of the  
195 Southern Area. For account number 601 "Salaries and Wages", and  
196 account number 675 "Miscellaneous Expense"; however, it was necessary  
197 to allocate amounts pertaining to Mains, Services, Meters, and Hydrants  
198 at Pontiac and South Beloit. The Company provided cost information for  
199 account numbers 601 and 675 that identified amounts pertaining to Mains,

200 Services, Meters, and Hydrants for the Southern Area as a whole, which  
201 includes Pontiac and South Beloit, but does not separate Pontiac and  
202 South Beloit from the remainder of the Southern Area. To allocate those  
203 amounts to Pontiac and South Beloit, and to eliminate the amounts  
204 allocated to Pontiac and South Beloit from the amounts charged to the  
205 remainder of the Southern Area, I determined the percentage of the total  
206 amount in Transmission and Distribution account numbers 601 and 675  
207 charged to the Southern Area, Pontiac, and South Beloit. The table below  
208 lists the percentages of Transmission and Distribution account nos. 601  
209 and 675 applicable to the Southern Area excluding Pontiac and South  
210 Beloit, and the separate percentages applicable to Pontiac and South  
211 Beloit.

District	Account No. 601	Account No. 675
Southern, excluding Pontiac and South Beloit	0.96373	0.94238
Pontiac	0.03477	0.04856
South Beloit	0.00150	0.00906

212 The corresponding percentage of account numbers 601 and 675 were  
213 applied to amounts in those accounts that I identified as pertaining to  
214 Mains, Services, Meters, and Hydrants to determine the amounts included  
215 in operating and maintenance account numbers 662 "Mains", 663  
216 "Meters", 664 "Services", and 677 "Hydrants" in the SPS, P, and SB  
217 COSS.

**RATE DESIGN**

218 Q. What is the Company's rate design methodology?

219 A. For the residential, commercial, and industrial customer classes in the  
220 Southern Area, the Company is proposing a nearly across-the-board  
221 increase of slightly less than 20.8 percent in both the customer charge and  
222 each of the four declining usage block rates. There are a few exceptions  
223 from the across-the-board increase. At Peoria, in the fourth usage block  
224 for the highest level of monthly usage, IAWC is proposing an increase to  
225 \$1.7326 per CCf<sup>1</sup> from the present \$1.3379 per CCf, which is an increase  
226 of 29.5 percent. At Pontiac, the Company is proposing to reduce the  
227 present second and third usage block rates. The proposed Peoria and  
228 Pontiac rates appear to be an attempt by IAWC to make those rates the  
229 same as the rest of the Southern Area.

230 Q. Are present South Beloit rates lower than present Southern Area rates?

231 A. Yes, present South Beloit rates are lower than rates in the remainder of  
232 the Southern Area rates. The South Beloit revenue requirement per unit of  
233 water is lower than the remainder of the Southern Area, so it is not  
234 necessary to increase South Beloit rates such that South Beloit rates  
235 would mirror other Southern Area rates. Additionally, unlike the remainder  
236 of the Southern Area, the cost of the supply of South Beloit water is not  
237 included in rates under review in this docket. Instead, the cost of South  
238 Beloit water supply is recovered through a Purchased Water surcharge

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<sup>1</sup> CCf = hundred cubic feet, which is approximately 748 gallons.

239 that is currently an additional 79¢ per month plus 93¢ per CCF of water  
240 used. It is therefore reasonable to expect that South Beloit rates under  
241 review in this docket would be lower than other Southern Area rates  
242 because the cost of South Beloit water supply is recovered through  
243 another charge, while the cost of water supply for the remainder of the  
244 Southern Area is included in rates under review in this docket.

245 Q. Should the Commission adopt the Company's rate proposals?

246 A. No, I do not recommend that the Commission adopt the Company's  
247 proposals. A COSS should be developed with rates based upon the  
248 COSS. Based upon the COSS that I prepared, the Company's rate  
249 proposals depend too heavily upon increases in the fixed monthly  
250 customer charge, and do not place enough emphasis on an increase in  
251 usage rates. The Company's proposed rates increase overall customer  
252 charges and overall usage charges by approximately the same 20.8  
253 percent. The rates in Schedule 7.1 place less emphasis on revenue  
254 recovery through the customer charge, and place more emphasis on  
255 revenue recovery through the usage charge.

### **Pontiac Billing Information**

256 Q. Did the Company provide Saunemin billing information for the Pontiac  
257 District?

258 A. No, IAWC did not provide Saunemin billing information. Saunemin is a  
259 village near Pontiac which began to be served by IAWC after the last time  
260 IAWC rates were under review before the Commission in Docket No. 02-  
261 0690. It is not clear whether the Saunemin data was included with the  
262 remainder of the Pontiac data in the Company's Section 285 filing, or if  
263 Saunemin data would be an addition to the Pontiac billing information  
264 already provided. Since IAWC is proposing different Basic Service  
265 Charges, commonly referred to as customer charges, at Saunemin  
266 compared to Pontiac, Saunemin data should be available and  
267 distinguishable from the remainder of the Pontiac District.

268 Q. Did IAWC provide Standby Customer demand billing information at  
269 Pontiac?

270 A. No, the Company did not provide Standby Customer demand billing  
271 information at Pontiac. The Company indicates that it projects some  
272 usage to be billed as standby usage, so it is reasonable to expect that  
273 demand charges will also apply to Standby Customers at Pontiac. To  
274 provide a reasonable estimate of Standby Customer demand billing, I  
275 calculated the percentage of Standby Customer usage billing in this  
276 docket compared to Standby Customer usage billing from Docket No. 02-  
277 0690, and applied the resulting 0.596 ratio to Standby Customer demand  
278 billing from Docket No. 02-0690.

**Fire Protection**

- 279 Q. Are you proposing the same public fire protection rates as IAWC?
- 280 A. No, I am not. The public fire protection charges shown in Schedule 7.1,  
281 page 14 are based on the COSS that I prepared instead of the Company's  
282 proposed across-the-board approach, and are appropriate at Staff's  
283 proposed revenue requirement.

**Differences in Revenue Requirement**

- 284 Q. Are the rates shown on Schedules 7.1 – SPS, - P, and - SB, pages 1 and  
285 14 based upon Staff's revenue requirement?
- 286 A. Yes, the rates shown on Schedule 7.1 are based upon the Staff's  
287 proposed revenue requirement. If the test year revenue requirement  
288 authorized by the Commission differs from Staff's, or the Company's,  
289 proposed revenue requirement, rates will necessarily differ from those  
290 presented by Staff or proposed by IAWC.
- 291 Q. If the Commission adopts a revenue requirement different from the Staff-  
292 sponsored revenue requirement, what do you propose?
- 293 A. If the difference between the revenue requirement adopted by the  
294 Commission and the amount sponsored by Staff is relatively minor, at 5%  
295 or less, each block of Staff's usage charges should be adjusted by a  
296 uniform percentage to recover the revenue requirement adopted by the  
297 Commission. If the difference between the revenue requirement adopted

298 by the Commission and Staff's is 5% or more, then a revised Staff COSS  
299 should be developed so that rates can be determined based upon the test  
300 year revenue requirement authorized by the Commission's Order.

301 Q. Has the Company presented an analysis of the bill impacts associated  
302 with its proposed rates?

303 A. Yes. That analysis was presented in response to Staff Data Request ML  
304 1.01.

305 Q. What do the results show for the Southern Area?

306 A. The results indicate that the increases will be evenly distributed among  
307 retail customers under the Company's proposed rates. That result is  
308 logical considering that IAWC has proposed to recover its proposed  
309 increase through equal percentage increases on current charges.

310 Q. Would your proposed rates produce a similar distribution of bill increases?

311 A. No, it would not. First, Staff is proposing a smaller rate increase than IAWC  
312 for the Southern Area. Second, I am proposing to base rates on my  
313 COSS results. The percentage increases for individual charges will differ,  
314 and as a result, customers will not receive the same percentage increases  
315 in their bills.

316 Q. How will the bill impacts of your rates be examined?

317 A. I will present an analysis of the bill impacts of the updated rates submitted  
318 with my rebuttal testimony. Those analyses will provide the most up-to-  
319 date assessment of the impacts for the rates I will be recommending in  
320 this case.

### **TARIFF BOOKS AND TARIFF LANGUAGE**

321 Q. Are there differences in tariff sheets among the various IAWC service  
322 areas in Illinois?

323 A. Yes. The Company has acquired or merged with several Illinois water  
324 utilities over the years. One problem that can and has occurred, after  
325 several acquisitions, is that tariff language, ILL.C.C. numbering, tariff  
326 sheet numbering and other tariff issues become rather disjointed,  
327 confusing, and cumbersome to manage and regulate. Each acquisition  
328 brings with it the history and legacy of the previous ownership, and it can  
329 be difficult to construct uniformity and consistency without some concerted  
330 effort to do so. For instance, IAWC's recent acquisition of the South Beloit  
331 Water, Gas and Electric Company water utility caused IAWC to  
332 incorporate the South Beloit General Terms and Conditions, tariffs and the  
333 language into IAWC tariff books. The South Beloit General Terms and  
334 Conditions are not the same terms and conditions as other IAWC districts.  
335 Additionally, the South Beloit tariff sheets have the same ILL.C.C. No. 4 as  
336 IAWC's Chicago Metro District. Thus, the Company has two tariff areas  
337 with the same ILL.C.C. number, which causes confusion when reviewing

338 or discussing tariffs. For consistency and uniformity among the IAWC  
339 service areas, the South Beloit General Terms and Conditions should be  
340 the same as other IAWC service areas, and the South Beloit tariff sheets  
341 should have a different ILL.C.C. number than the IAWC Chicago Metro  
342 District.

343 Q. Do you have a recommendation regarding the uniformity and consistency  
344 of the tariff language and tariff books of the IAWC districts?

345 A. Yes. I recommend that the Commission order IAWC to undertake a project  
346 to make its tariff sheets and language uniform and consistent across all of  
347 its districts, and require the ILL.C.C. numbering of IAWC tariffs to be  
348 consistent with Commission practice. The revisions should be completed  
349 with Staff's input. I anticipate that this will not be a small task and will  
350 require a significant amount of time on the part of the Company and the  
351 Staff to achieve the desired results. IAWC should undertake this  
352 endeavor after the conclusion of this docket and new streamlined uniform  
353 tariffs should be filed with the Commission, as an additional compliance  
354 filing to this docket, no later than September 30, 2009, which will be about  
355 14 months from the Order in this docket.

356 Q. Has the Commission ordered IAWC to develop new tariff language in its  
357 Order in Docket Nos. 05-0681/06-0094/06-0095 (cons)?

358 A. Yes. The Order in those dockets states that the Company is required to

359 (b) Amend its tariffs to provide one unified set  
360 of rules, regulations, and conditions of  
361 service for all of its service areas in the  
362 State of Illinois, which is to be completed  
363 within two years of the date of the final  
364 order in this proceeding;

365 Q. Is your recommendation above intended to repeat the order from Docket  
366 Nos. 05-0681/06-0094/06-0095 (cons)?

367 A. No. My recommendation is independent of the Order from those dockets,  
368 which addresses only the “rules, regulations and conditions of service”.  
369 My recommendation concerns the other aspects of the tariff sheets not  
370 included in the definition of the “rules, regulations and conditions of  
371 service” for all the service areas of IAWC.

**NUMBER OF DAYS FOR TARIFF COMPLIANCE FILING**

372 Q. How many days should be allowed for the Company to make its filing in  
373 compliance with the Order in this docket, and what should be the effective  
374 date for the revised rates?

375 A. The Commission should include an ordering paragraph that states that the  
376 Company should file its compliance tariffs within five working days after  
377 the Order is entered, and that the tariffs should have an effective date no  
378 less than 10 working days after the compliance filing. This will provide  
379 Staff with a sufficient amount of time to review all the rates and tariff  
380 changes for each of the various IAWC rate areas across Illinois.

381 Q. Does this conclude your prepared direct testimony?

382 A. Yes.

## **APPENDIX A**

### Description of COSS Methodology

#### **Summary**

1 In general, the objectives of a cost of service study (“COSS”) are to functionalize  
2 a utility's revenue requirement into basic categories and allocate those costs  
3 across rate classes to determine each class' cost of service. Rates can then be  
4 designed to recover the cost to serve each customer class. In the water industry,  
5 embedded cost studies are utilized as the main guide to designing rates unique  
6 to each utility.

7 The development of water rates, in general, involves the following procedures,  
8 described in the American Water Works Association (“AWWA”), “Water Rates,”  
9 Manual M1, p. vii (Fourth Edition, 1991):

- 10 • Determination of the total annual revenue requirements for the  
11 period in which the rates are to be effective.
- 12 • Allocation of the total annual revenue requirements to the basic  
13 functional cost components.
- 14 • Distribution of the component costs to the various customer classes  
15 in accordance with their requirements for service.
- 16 • Design of water rates that will recover from each class of  
17 customers, within practical limits, the cost to serve that class of  
18 customers.

19 The following report describes the procedures employed in performing the  
20 embedded cost of service study for the Company.

#### **Explanation and Definitions**

21 Staff's COSS uses the Base-Extra Capacity method described in detail in  
22 AWWA's “Water Rates”, Manual M1, (Fourth Edition, 1991) pages 11-16. This  
23 procedure is a generally accepted and often used method of determining the cost  
24 to serve water customers and thus provides the basis of designing rates for a  
25 water utility.

26 The basic breakdown of cost is the functionalization into operational components.  
27 For a water utility, the three basic types of costs are: (1) operation and

28 maintenance ("O&M") expense, (2) depreciation expense, and (3) return on  
29 capital investment. This information is normally readily available from the utility's  
30 accounting records.

31 After the costs are functionalized, they are allocated to the following four main  
32 components: (1) base costs, (2) extra capacity costs, (3) customer costs, and (4)  
33 direct fire protection costs.

34 • **Base costs** are those costs that tend to vary with the total quantity  
35 of water used. These costs also include O&M expenses and  
36 capital costs associated with serving customers under average load  
37 conditions.

38 • **Extra capacity costs**, and their associated O&M and capital costs,  
39 are costs correlated with meeting usage in excess of average  
40 usage. These costs can be further subdivided into costs  
41 associated with maximum-day extra usage and maximum-hour  
42 extra usage.

43 • **Customer costs** encompass those expenditures related to serving  
44 a customer regardless of that customer's water usage or rate of  
45 usage. These contain costs associated with meters, services and  
46 other customer related costs.

47 • **Direct fire protection costs** are directly applicable to the fire  
48 protection function.

49 After costs are properly allocated between cost components, the cost of service  
50 for each meter size is determined. The fixed customer cost of service per meter  
51 has three basic components:

52 • **Equivalent meter costs** include those customer costs associated  
53 with meters.

54 • **Equivalent service costs** include those customer costs associated  
55 with the service line extended to the customer's meter from the  
56 water main that supplies the customers in the area.

57 • **Other customer costs** are those costs attributed directly to  
58 customers, divided by the number of bills to obtain a customer  
59 charge per bill. Other customer costs are non-meter size sensitive  
60 with each meter size being allocated the same per unit charge,  
61 regardless of class (i.e. residential, commercial, industrial etc.).  
62 Examples are costs to own and maintain office buildings, billing  
63 systems, and other information systems, employees who complete

64 customer information-related tasks, and insurance on office  
65 buildings and employees in those buildings.

66 Equivalent meters and services is a method of assigning costs based on the size  
67 of the meter. Distribution of customer costs by equivalent meter and service  
68 ratios recognizes that meter and service costs vary, depending on considerations  
69 such as size of service pipe, materials used, locations of meters, and other local  
70 characteristics for various sized meters as compared to 5/8" meters and services.  
71 The number of equivalent meters and services (*i.e.* which is based on meter  
72 ratios) assists in allocating costs assigned for recovery in the customer charges.  
73 This is necessary to adjust the units of service for each customer class as  
74 indexed against the smallest meter size. Therefore, customers are allocated a  
75 charge that reflects the costs associated with their particular meter size. Actual  
76 cost differentials are taken from the AWWA Water Meters-Selection, Installation,  
77 Testing, and Maintenance Manual (M6) (1972), pages 32-33.

Illinois-American Water Company  
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ITEM	PRESENT RATES (E-2)	PROPOSED RATES (E-2)	STAFF RATES	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		OTHER PUBLIC AUTH.		LARGE INDUSTRIAL	
				E-4	ADJUST.	E-4	ADJUST.	E-4	ADJUST.	E-4	ADJUST.	E-4	ADJUST.
CUS CHARGES, MONTHLY													
5/8" disk	11.52	13.91	12.73	1,675,878	0	96,916	0	1,256	0	4,653	0	0	0
3/4" disk	14.65	17.70	14.65	17,052	0	7,313	0	239	0	336	0	0	0
1" disk	21.38	25.82	21.38	6,619	0	18,928	0	799	0	1,944	0	0	0
1 1/2" disk	47.46	57.33	47.46	213	0	3,458	0	177	0	497	0	0	0
2" disk	73.53	88.82	73.53	497	0	12,050	0	1,783	0	4,195	0	0	0
3" disk	141.33	170.71	141.33	0	0	119	0	79	0	78	0	0	0
4" disk	235.20	284.10	235.20	0	0	363	0	470	0	147	0	0	0
6" disk	464.66	561.26	464.66	0	0	56	0	116	0	59	0	0	0
8" disk	741.05	895.11	741.05	0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
4" disk - Large Industrial	285.20	334.10	285.20	0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
6" disk - Large Industrial	514.66	611.26	514.66	0	0	0	0	0	0	0	0	84	0
				0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
Total Bills				1,700,259	0	139,203	0	4,919	0	11,911	0	84	0
TOTAL CUS CHARGE REVENUES Present				19,744,082	0	2,806,439	0	350,224	0	505,398	0	43,231	0
Proposed				23,840,526	0	3,389,399	0	423,033	0	610,454	0	51,346	0
Staff				21,766,369	0	2,923,388	0	351,740	0	511,014	0	43,231	0
MONTHLY USAGE CHARGES (100 cubic feet)				(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)	
0 through 30	2.5065	3.0276	2.9910	10,656,296	0	1,506,918	0	68,862	0	169,387	0	0	0
31 through 600	1.8678	2.2559	2.1599	681,393	0	2,588,593	0	412,144	0	583,864	0	0	0
601 through 13,000 -- Sthrn, Strtr	1.4957	1.8067	2.1283	14,008	0	520,557	0	1,002,193	0	247,649	0	0	0
601 through 13,000 -- Peoria	1.4805	1.8067	2.1283	6,265	0	610,429	0	269,648	0	193,144	0	0	0
Over 13,000 -- Sthrn, Streator	1.4344	1.7326	1.7335	0	0	0	0	227,194	0	75,562	0	0	0
Over 13,000 -- Peoria	1.3379	1.7326	1.7335	0	0	5,454	0	298,411	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
Large Other PA - all usage	0.8568	1.0349	1.1971	0	0	0	0	0	0	0	0	0	0
Large Industrial - all usage	0.9572	1.1734	1.2539	0	0	0	0	0	0	0	0	2,016,905	0
Industrial Competitive - all usage	0.8568	1.0349	1.0349	0	0	0	0	0	0	0	0	0	0
MEMJAWA	0.7879	0.9517	0.9517	0	0	0	0	0	0	0	0	0	0
O'Fallon	1.4300	1.7273	1.7273	0	0	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0	0	0	0
Total Usage				11,357,962	0	5,231,951	0	2,278,452	0	1,269,606	0	2,016,905	0

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__COMPETITIVE INDUST.___		__LG. OTHER PUBLIC AUTH.___		__OTHER WATER UTILITIES__		TOTAL
BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
12	0	0	0	57	0	1,778,772
0		0	0	17		24,957
0	0	12	0	12	0	28,315
0		0	0	0		4,345
12	0	24	0	157	0	18,718
0		0	0	12		288
36	0	12	0	253	0	1,281
0		24	0	171		427
0	0	0	0	23	0	23
0	0	0	0		0	0
						0
0	0	0	0	0	0	0
0	0	0	0		0	0
						0
0	0	0	0	0	0	84
0	0	0	0	0	0	0
0	0	0	0	0	0	0
60	0	72	0	702	0	1,857,211
9,488	0	16,000	0	170,651	0	23,645,513
11,460	0	19,326	0	206,129	0	28,551,674
9,502	0	16,000	0	170,719	0	25,791,964
(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)
0	0	0	0	5,463	0	12,406,926
0	0	0	0	101,226	0	4,367,220
0	0	0	0	1,507,057	0	3,291,464
0	0	0	0	189,908	0	1,269,394
0	0	0	0	3,412,053	0	3,714,809
0	0	0	0	0	0	303,865
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	75,878	0	0	0	75,878
0	0	0	0	0	0	2,016,905
1,605,424	0	0	0	0	0	1,605,424
0	0	0	0	1,442,472	0	1,442,472
0		0		197,323		197,323
0	0	0	0	0	0	0
1,605,424	0	75,878	0	6,855,502	0	30,691,680

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ITEM		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		OTHER PUBLIC AUTH.		LARGE INDUSTRIAL	
		BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.
USAGE CHARGE REVENUES	Present	28,012,939	0	10,301,698	0	3,565,730	0	2,279,854	0	1,930,581	0
	Proposed	33,836,783	0	12,454,754	0	4,346,741	0	2,757,274	0	2,366,636	0
	Staff	33,387,869	0	12,514,826	0	4,714,152	0	2,836,851	0	2,529,062	0
OTHER ADJUSTMENTS Reconciliation	Present	0	0	0	0	0	0	0	0	0	0
	Proposed	0	0	0	0	0	0	0	0	0	0
	Staff	0	0	0	0	0	0	0	0	0	0
TOTAL METERED REVENUES	Present	47,757,021	0	13,108,137	0	3,915,954	0	2,785,253	0	1,973,813	0
	Proposed	57,677,309	0	15,844,153	0	4,769,774	0	3,367,728	0	2,417,982	0
	Staff	55,154,238	0	15,438,214	0	5,065,892	0	3,347,864	0	2,572,293	0

PVT. FIRE PROT RATES, MONTHLY										PRIVATE
Size Connection		Less than 3"	3"	4"	6"	8"	10"	12"	16"	HYDRANTS
Present	E-2	4.00	5.00	9.00	20.00	39.00	69.00	109.00	230.00	20.00
Proposed	E-2	4.83	6.04	10.87	24.16	47.11	83.35	131.66	277.82	24.16
Per Cost of Service Study		6.00	6.00	8.00	13.00	23.00	37.00	56.00	113.00	17.10
Staff		6.00	6.00	8.00	13.00	23.00	37.00	56.00	113.00	17.00
Units (ANNUAL)		ML 2.04-R1	1,074	24	2,719	11,296	321	193	12	23

NON-METERED REVENUES	PVT. FIRE	PUBLIC FIRE			OTHER OPERATING	VARIABLE REVENUES	TOTAL NON-METERED
		Municipal	Surcharge	TOTAL			
Present	515,489	129,061	3,926,101	4,055,162	464,545	359,825	5,395,021
Proposed	622,689	129,061	4,740,813	4,869,874	727,436	359,825	6,579,824
Staff	325,980	127,335	3,700,402	3,827,737	727,436	421,134	5,302,287

TOTAL REVENUES	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTH.	LARGE INDUST.	COMP. INDUST.	LG. OTHER PUB. AUTH.
Present	47,757,021	13,108,137	3,915,954	2,785,253	1,973,813	1,385,015	81,012
Proposed	57,677,309	15,844,153	4,769,774	3,367,728	2,417,982	1,672,914	97,852
Staff	55,154,238	15,438,214	5,065,892	3,347,864	2,572,293	1,670,956	106,833

PER STAFF	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTH.	LARGE INDUST.	COMP. INDUST.	LG. OTHER PUB. AUTH.
Cost of Service	54,232,135	14,735,432	5,422,207	3,116,396	3,727,166	2,970,466	157,223
Percent Increase	15.5	17.8	29.4	20.2	30.3	20.6	31.9
Percent Cost of Service	101.7	104.8	93.4	107.4	69.0	56.3	68.0
Percent Increase -- Company	20.8	20.9	21.8	20.9	22.5	20.8	20.8
Percent Cost of Service -- Company	106.4	107.5	88.0	108.1	64.9	56.3	62.2

__COMPETITIVE INDUST.___LG. OTHER PUBLIC AUTH.___OTHER WATER UTILITIES__						TOTAL
BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
1,375,527	0	65,012	0	8,993,371	0	56,524,713
1,661,453	0	78,526	0	10,866,584	0	68,368,752
1,661,453	0	90,834	0	11,475,059	0	69,210,105
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
1,385,015	0	81,012	0	9,164,022	0	80,170,227
1,672,914	0	97,852	0	11,072,714	0	96,920,426
1,670,956	0	106,833	0	11,645,778	0	95,002,068

OTHER WTR. UTIL.	NON-METERED	TOTAL
9,164,022	5,395,021	85,565,248
11,072,714	6,579,824	103,500,250
11,645,778	5,302,287	100,304,355

OTHER WTR. UTIL.	PUB. FIRE	PVT FIRE
11,751,696	3,864,096	327,546
27.1	(5.6)	(36.8)
99.1	99.1	99.5
20.8	22.0	21.0
94.2	170.3	31598.7

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Demand Factors"

DEMAND FACTORS			
Customer Class	Max Day	Max Hour	
Residential	2.20	6.00	(1)
Commercial	1.50	4.30	(1)
Industrial	1.70	3.00	(1)
Public Authority	1.40	2.80	(1)
Large Industrial	1.70	3.00	(1)
Other Water Utilities	1.30	2.00	(1)
Fire Protection	1.98	15.84	
Gallons Per Minute	11,000		
Hours of Protection	3		
MGD PUMPAGE			
Average Daily Rate		80.151	(2)
Max. Daily Rate		119.339	(2)
Max. Hourly Pumpage Rate		138.780	(2)
Max. Hourly Consumption Rate		139.710	(2)
(Pumpage plus Storage Drawdown)			

(1) Source: Illinois-American Exhibit 11.01  
page I-4

(2) Source: Revised Reply to Staff data request ML-2.03  
2005. Highest reading from the years 2002 through year-to-date 2007.

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	67.16%	32.84%					
Base-Max Hr.	3	57.37%		42.63%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	48.30%	23.37%	10.60%	0.00%	6.26%	8.69%	2.78%
Adm. and Gen	10	41.01%	19.23%	5.27%	24.44%	3.84%	4.30%	1.91%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	57.37%	28.05%	14.58%				

Refer to last page for brief allocation code explanations



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
GENERAL PLANT		29,637,038										
303	Land and land rights	461,002	0	461,002	222,650	107,743	48,882	0	28,870	40,058	12,800	9
304	Structures and improvements	7,006,601	4,303,724	2,702,877	1,305,406	631,700	286,596	0	169,268	234,860	75,047	9
340	Office furniture	1,541,501	1,200,259	341,242	164,809	79,753	36,183	0	21,370	29,651	9,475	9
341	Transportation	7,693,267	3,208,708	4,484,559	2,165,903	1,048,103	475,515	0	280,846	389,674	124,517	9
342	Stores	131,360	74,362	56,998	27,528	13,321	6,044	0	3,570	4,953	1,583	9
343	Tools etc	4,291,474	1,396,702	2,894,772	1,398,085	676,548	306,944	0	181,285	251,534	80,375	9
344	Laboratory	941,810	364,895	576,915	278,632	134,833	61,172	0	36,129	50,130	16,018	9
345	Power operated	2,206,457	330,994	1,875,463	905,791	438,322	198,862	0	117,451	162,964	52,073	9
346	Communications	4,668,145	1,891,609	2,776,536	1,340,981	648,915	294,407	0	173,881	241,260	77,092	9
347	Miscellaneous	695,421	352,101	343,320	165,813	80,239	36,404	0	21,500	29,832	9,533	9
348	Other Tangible Plant	0	821	(821)	(397)	(192)	(87)	0	(51)	(71)	(23)	9
399	RECONCILIATION	0		0	0	0	0	0	0	0	0	9
TOTAL PLANT IN SERVICE		509,355,951	182,787,428	326,568,523	158,005,439	76,195,689	34,569,281	0	20,417,123	28,328,793	9,052,198	
Allocation Code 9 Calculation		Cross check =		326,568,523	48.30%	23.37%	10.60%	0.00%	6.26%	8.69%	2.78%	
				Total	Base Cost	Max Day	Max Hour					
Small Main Plant in Service		CLH 1.02-R1_Supp		84,497,295	48,475,719	23,701,095	12,320,481					
Small Main CIAC and Advances		CLH 1.02-R1_Supp		40,031,085	22,965,654	11,228,532	5,836,900					
Total Plant CIAC and Advances		CLH 1.02-R1_Supp		48,363,752	27,746,068	13,565,806	7,051,879					
Allocated Total Plant less General					150,030,236	72,336,404	32,818,359					
% Small Main to Allocated Total Plant					32.31%	32.77%	37.54%					
Small Main with General Plant Allocated					51,052,557	24,965,593	12,977,802					
Small Main with General Plant Allocated less CIAC and Advance:					28,086,903	13,737,062	7,140,902					
Allocated Total Plant less CIAC					130,259,371	62,629,883	27,517,402					

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	SOURCE OF SUPPLY	436,581										
	ML 2.01-R1											
601	Salaries and Wages	248,612	0	248,612	166,974	81,638						2
610	Purchased water	0	0	0	0							1
615	Purchased Power	187,614	0	187,614	187,614							1
616	Fuel for Power Prod.	355	0	355	355							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	1,049,117										
620	Materials and Supplies	90,545	0	90,545	60,812	29,733						2
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	3,607	0	3,607	2,423	1,184						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	9,613	0	9,613	6,456	3,157						2
650	Transportation Exp.	4,177	0	4,177	2,805	1,372						2
658	Insurance	0	0	0	0	0						2
668	Water Res. Conserv. Exp.	0	0	0	0	0						2
675	Misc. Expenses	941,175	0	941,175	632,116	309,059						2
	PUMPING EXPENSES	6,505,927										
601	Salaries and Wages	1,670,624	0	1,670,624	958,429	468,602	243,592					12
615	Purchased Power	4,834,950	0	4,834,950	4,834,950							1
616	Fuel for power production	0	0	0	0							1
620	Materials and Supplies	353	0	353	203	99	51					12
631	Contractual Serv.	0	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0	0					12
636	Contractual Serv. - Other	0	0	0	0	0	0					12
641	Rental of Property	0	0	0	0	0	0					12
	PUMPING EXPENSES	111,165										
642	Rental of Equipment	466	0	466	267	131	68					12
650	Transportation Expenses	(21)	0	(21)	(12)	(6)	(3)					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	110,720	0	110,720	63,520	31,056	16,144					12
	WATER TREATMENT EXPENSE	6,268,357										
601	Salaries and Wages	2,187,637	0	2,187,637	1,469,271	718,366						2
615	Purchased Power	0	0	0	0	0						2
616	Fuel for power production	0	0	0	0	0						2
618	Chemicals	4,075,335	0	4,075,335	4,075,335							1
620	Materials and Supplies	5,385	0	5,385	3,617	1,768						2

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	WATER TREATMENT EXPENSE	1,107,310										
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	1,569	0	1,569	1,054	515						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	3,391	0	3,391	2,277	1,114						2
650	Transportation Exp.	13	0	13	9	4						2
658	Insurance	0	0	0	0	0						2
675	Misc. Expenses	1,102,337	0	1,102,337	740,357	361,981						2
	TRANSMISSION/DISTRIBUTION	5,338,329										
601	Salaries and Wages	3,803,619	0	3,803,619	1,674,907	726,693	377,755	0	391,693	438,069	194,502	13
661	Storage Facilities	0	0	0	0	0	0					4
662	Mains	1,129,639	0	1,129,639	648,069	316,858	164,712					12
663	Meters	177,980	0	177,980				177,980				6
664	Services	199,053	0	199,053						199,053		7
615	Purchased Power	28,037	0	28,037	28,037							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION	861,557										
618	Chemicals	0	0	0	0							1
620	Materials and Supplies	92,109	0	92,109	40,560	17,598	9,148	0	9,485	10,608	4,710	13
672	Dist. reservoirs and standpipes	0	0	0	0		0					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	57,663	0	57,663	57,663							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property	5,745	0	5,745	2,530	1,098	571	0	592	662	294	13
677	Hydrants	88,379	0	88,379							88,379	8
642	Rental of Equipment	9,161	0	9,161	4,034	1,750	910	0	943	1,055	468	13
650	Transportation Exp.	47,565	0	47,565	27,288	13,342	6,935					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	560,935	0	560,935	247,005	107,168	55,709	0	57,765	64,604	28,684	13
	CUSTOMER ACCOUNTS EXPENSE	4,262,090										
601	Salaries and Wages	3,107,527	0	3,107,527				3,107,527				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	1,150,652	(11,581)	1,139,072	467,136	219,029	60,039	278,389	43,779	48,962	21,739	10
620	Materials and Supplies	3,911	0	3,911				3,911				5
	CUSTOMER ACCOUNTS EXPENSE	948,542										
631	Contractual Serv.	0	0	0				0				5
635	Contractual Serv. - Testing	13,643	0	13,643				13,643				5
636	Contractual Serv. - Other	0	0	0				0				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	2	0	2				2				5
650	Transportation Exp.	(525)	0	(525)				(525)				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	935,422	0	935,422				935,422				5



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	615,013	352,830	172,508	89,675	
Small mains with overhead	2,379,715	1,365,232	667,499	346,984	
Total Expense less Adm. & General and less Pro Forma Adjustments		16,406,059	3,413,309	935,631	
% Small Mains to Total Expense		8.32%	19.56%	37.09%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		2,112,765	1,491,184	775,159	
Depreciation		1,297,254	639,704	270,629	
Other Taxes		628,053	309,157	165,948	
Income Taxes		815,582	401,467	215,498	Total
Utility Operating Income		2,229,930	1,097,675	589,206	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		7,083,584	3,939,187	2,016,440	13,039,211

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC AUTH.	LARGE INDUST.	COMP. INDUST.	LG. OTHER PUB. AUTH.	OTHER WTR. UTIL.	Total
Remove From	6,162,375	2,022,081	895,955	428,549	793,107	631,300	25,612	2,080,231	13,039,211
Reallocate to Blocks	6,896,675	3,173,585	1,064,347	725,036	27,462	21,860	26,304	1,103,942	13,039,211
Net Adjustment	734,301	1,151,503	168,392	296,487	(765,645)	(609,441)	692	(976,290)	0

Customer Class	Annual Consumption			Max Day				Max Hour				Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	11,357,962	23.276	36.64%	220%	51.207	27.931	57.68%	600%	139.656	116.380	55.37%	1,700,259	90.52%	1,723,043	81.35%	1,705,528	89.35%
Commercial	5,231,951	10.722	16.88%	150%	16.083	5.361	11.07%	430%	46.104	35.382	16.84%	139,203	7.41%	282,532	13.34%	169,896	8.90%
Industrial	2,278,452	4.669	7.35%	170%	7.938	3.268	6.75%	300%	14.008	9.339	4.44%	4,919	0.26%	37,502	1.77%	10,111	0.53%
Other Public Auth.	1,269,606	2.602	4.10%	140%	3.643	1.041	2.15%	280%	7.285	4.683	2.23%	11,911	0.63%	53,884	2.54%	20,248	1.06%
Large Industria	2,016,905	4.133	6.51%	170%	7.027	2.893	5.97%	300%	12.400	8.267	3.93%	84	0.00%	0	0.00%	0	0.00%
Cmptve. Indust.	1,605,424	3.290	5.18%	170%	5.593	2.303	4.76%	300%	9.870	6.580	3.13%	60	0.00%	1,008	0.05%	186	0.01%
Lg. Othr. Pub. Auth.	75,878	0.155	0.24%	140%	0.218	0.062	0.13%	280%	0.435	0.280	0.13%	72	0.00%	1,723	0.08%	245	0.01%
Other Water Utilities	6,855,502	14.049	22.12%	130%	18.264	4.215	8.70%	200%	28.098	14.049	6.68%	702	0.04%	18,289	0.86%	2,528	0.13%
SUBTOTAL	30,691,680	62.897	99.01%		109.972	47.075	97.21%		257.857	194.960	92.76%	1,857,211	98.88%	2,117,981	100.00%	1,908,742	100.00%
Fire Prot.	306,917	0.629	0.99%		1.980	1.351	2.79%		15.840	15.211	7.24%	21,131	1.12%	-----	-----	-----	-----
TOTAL	30,998,597	63.526	100.00%		111.952	48.426	100.00%		273.697	210.171	100.00%	1,878,341	100.00%	2,117,981	100.00%	1,908,742	100.00%

Number of public fire protection bills ignored as immateri:

No services assigned to public fire protection; services considered to be part of hydrant

No services assigned to private fire protection since customer generally pays for service lin

Fire Protection Consumption set at 1% of other consumer

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITIES	LARGE INDUSTRIAL	COMPETITIVE INDUSTRIAL	LG. OTHER PUBLIC AUTH.	OTHER WATER UTILITIES	FIRE PROTECTION	TOTAL
Base	36.64%	16.88%	7.35%	4.10%	6.51%	5.18%	0.24%	22.12%	0.99%	100.00%
Maximum Day	57.68%	11.07%	6.75%	2.15%	5.97%	4.76%	0.13%	8.70%	2.79%	100.00%
Maximum Hour	55.37%	16.84%	4.44%	2.23%	3.93%	3.13%	0.13%	6.68%	7.24%	100.00%
Commercial	90.52%	7.41%	0.26%	0.63%	0.00%	0.00%	0.00%	0.04%	1.12%	100.00%
Meters	81.35%	13.34%	1.77%	2.54%	0.00%	0.05%	0.08%	0.86%	-----	100.00%
Services	89.35%	8.90%	0.53%	1.06%	0.00%	0.01%	0.01%	0.13%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITIES	LARGE INDUSTRIAL	COMPETITIVE INDUSTRIAL	LG. OTHER PUBLIC AUTH.	OTHER WATER UTILITIES	FIRE PROTECTION	TOTAL
Base	17,749,451	8,176,137	3,560,610	1,984,054	3,151,882	2,508,848	118,577	10,713,313	479,629	48,442,500
Maximum Day	10,835,615	2,079,723	1,267,972	403,739	1,122,420	893,428	24,129	1,635,055	524,117	18,786,200
Maximum Hour	3,806,111	1,157,147	305,408	153,163	270,350	215,194	9,154	459,463	497,463	6,873,454
Billing	8,772,995	718,261	25,381	61,457	433	310	373	3,623	109,030	9,691,862
Meters	4,973,591	815,533	108,250	155,537	0	2,910	4,972	52,793	-----	6,113,586
Services	7,982,534	795,179	47,322	94,770	0	871	1,147	11,833	-----	8,933,656
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	2,611,675	2,611,675
Adjustments *	(622,462)	(158,053)	(61,130)	(32,810)	(52,275)	(41,653)	(1,821)	(148,094)	(30,272)	(1,148,570)
Small Main Adjustment	734,301	1,151,503	168,392	296,487	(765,645)	(609,441)	692	(976,290)	0	0
TOTAL COST OF SERVICE	54,232,135	14,735,432	5,422,207	3,116,396	3,727,166	2,970,466	157,223	11,751,696	4,191,642	100,304,362
Percent of COSS	54.07%	14.69%	5.41%	3.11%	3.72%	2.96%	0.16%	11.72%	4.18%	100.00%

\* for Other and for Unbillec

Special Tariff Revenues	0
Other Operating Revenues	727,436
Unbilled Revenues	421,134
Total Revenues	101,452,932

**ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Fire Protection Allocation"**

FIRE PROTECTION	Equivalent Connections
Public, monthly	152,712
Private, monthly	<u>26,587</u>
Total Equiv. Connections:	<u>179,299</u>
Total Fire Protection per Cost of Service Study	4,191,642
Less Billing Costs:	109,030
Less Hydrant Costs:	<u>2,611,675</u>
Total Non-hydrant Fire Protection Cost:	<u>1,470,937</u>
Total Non-hydrant Fire Protection Cost: Per Equiv. Connection, monthly	8.20
Public Fire Protection Connection Cost:	1,252,821
Plus Hydrant Costs:	<u>2,611,275</u>
Total Public Fire Protection Cost:	<u>3,864,096</u>
Total Private Fire Protection Connection Cost:	218,116
Plus Billing Costs:	109,030
Plus Hydrant Costs:	<u>400</u>
Total Private Fire Protection Cost:	<u>327,546</u>

"Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3'	0.056	5.62	6.00
3	0.162	6.49	6.00
4	0.344	7.98	8.00
6	1.000	13.36	13.00
8	2.131	22.64	23.00
10	3.832	36.60	37.00
12	6.190	55.94	56.00
16	13.192	113.38	113.00

# - ratio based on capacity

Per Hydrant Cost Customer	\$303.64 Hydrants	Total Cost	Municipa Paid	Customer Surcharge	MONTHLY BILLS				Fire Prot Bills	Equiv. Fire Prot Bills	Monthly Rates				Actual Surcharge Revenues	Connections Per Hydrant
					5/8"	3/4"	1"	1 1/2"			5/8"	3/4"	1"	1 1/2"		
Total	12,726	\$ 3,864,096	\$ 127,335	\$ 3,736,761	1,631,530	57,116	31,363	27,018	1,747,026	1,930,701					3,700,402	
Outside	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
Alton	887	269,327	0	269,327	139,392	957	1,958	2,447	144,754	157,958	1.71	2.57	4.28	8.55	270,122	13.60
Godfrey	440	133,601	0	133,601	68,408	720	1,124	839	71,090	76,492	1.75	2.63	4.38	8.75	133,870	13.46
Quarry Elshah	39	11,842	0	11,842	4,487	67	121	62	4,737	5,200	2.28	3.42	5.70	11.40	11,857	10.12
Fosterburg	5	1,518	0	1,518	869	12	85	36	1,003	1,282	1.18	1.77	2.95	5.90	1,512	16.71
City of Cairo	309	93,824	0	93,824	13,910	0	166	454	14,530	16,595	5.65	8.48	14.13	28.25	93,763	3.92
City of E. St. Louis	910	276,311	0	276,311	102,901	424	1,392	2,436	107,153	119,198	2.32	3.48	5.80	11.60	276,539	9.81
Village of Brooklyr	35	10,627	0	10,627	2,819	12	60	157	3,048	3,770	2.82	4.23	7.05	14.10	10,631	7.26
French Village	60	18,218	3,574	14,644	3,209	24	72	38	3,342	3,613	4.05	6.08	10.13	20.25	14,633	4.64
Village of Sauge	46	13,967	17,140	(3,173)	996	24	80	258	1,358	2,523	0.00	0.00	0.00	0.00	0	2.46
Cahokia-Maplewd.	6	1,822	511	1,311	3,541	41	84	60	3,726	4,113	0.32	0.48	0.80	1.60	1,316	51.75
Village of Alortor	32	9,716	2,638	7,078	6,103	12	104	144	6,363	7,101	1.00	1.50	2.50	5.00	7,101	16.57
Midway	47	14,271	0	14,271	8,596	0	24	56	8,676	8,938	1.60	2.40	4.00	8.00	14,300	15.38
Vlg. of Wash. Pk.	85	25,809	0	25,809	15,902	23	108	108	16,141	16,748	1.54	2.31	3.85	7.70	25,792	15.82
Church Road	23	6,984	0	6,984	2,923	18	144	24	3,109	3,430	2.04	3.06	5.10	10.20	6,998	11.26
Vlg. Of Fairm. City	90	27,327	0	27,327	8,577	36	144	202	8,959	10,000	2.73	4.10	6.83	13.65	27,301	8.30
Granite City	664	201,616	0	201,616	130,777	1,691	1,344	1,827	135,638	145,806	1.38	2.07	3.45	6.90	201,212	17.02
City of Venice	70	21,255	0	21,255	6,712	48	95	226	7,081	8,150	2.61	3.92	6.53	13.05	21,273	8.43
City of Madison	127	38,562	10,041	28,521	20,004	189	394	586	21,174	24,205	1.18	1.77	2.95	5.90	28,562	13.89
Eagle Pk. Assoc.	7	2,125	0	2,125	1,529	0	0	0	1,529	1,529	1.39	2.09	3.48	6.95	2,125	18.20
Long Lake	102	30,971	0	30,971	22,331	1,076	247	181	23,834	25,467	1.22	1.83	3.05	6.10	31,070	19.47
Venice Townshp	5	1,518	0	1,518	1,134	0	0	0	1,134	1,134	1.34	2.01	3.35	6.70	1,520	18.91
Tri-City Port Dist.	4	1,215	340	875	0	0	0	0	0	0	4.86	7.28	12.14	24.28	0	0.00
Cloverleaf East	3	911	255	656	0	0	12	0	12	30	4.86	7.28	12.14	24.28	146	0.33
City of Belleville	1,114	338,253	77,848	260,405	209,267	5,065	2,849	2,410	219,591	236,038	1.10	1.65	2.75	5.50	259,642	16.43
Village of Swansea	544	165,179	0	165,179	48,414	6,677	762	930	56,783	64,983	2.54	3.81	6.35	12.70	165,058	8.70
Signal Hill	338	102,630	0	102,630	24,480	874	413	248	26,015	28,062	3.66	5.49	9.15	18.30	102,705	6.41
East Side Fire Dist	51	15,486	0	15,486	69,450	2,222	1,007	342	73,021	77,011	0.20	0.30	0.50	1.00	15,402	119.32
Villa Hills	38	11,538	0	11,538	9,119	330	101	60	9,609	10,166	1.14	1.71	2.85	5.70	11,589	21.07
Millstadt Rural	199	60,424	2,893	57,531	5,885	801	66	64	6,815	7,570	2.74	4.11	6.84	13.69	20,727	2.85
Northwest Fire	23	6,984	0	6,984	33,786	486	195	242	34,709	36,212	0.19	0.29	0.48	0.95	6,884	125.76
Frvw.-Caseyville	23	6,984	1,702	5,282	4,896	99	72	408	5,475	7,263	0.73	1.10	1.83	3.65	5,303	19.84
Canteen Townshp	3	911	255	656	936	0	12	0	948	966	0.68	1.02	1.70	3.40	657	26.34
Smithton	3	911	150	761	373	24	0	0	397	409	1.86	2.79	4.65	9.30	760	11.02
Mitchell	4	1,215	0	1,215	342	0	0	0	342	342	3.56	5.34	8.90	17.80	1,216	7.11
O'Fallon Shiloh	407	123,581	0	123,581	20,888	6,861	204	690	28,644	35,141	3.52	5.28	8.80	17.60	123,696	5.86
Columbia Rura	48	14,575	0	14,575	3,698	148	125	24	3,995	4,353	3.35	5.03	8.38	16.75	14,584	6.94
City of Peoria	4,589	1,393,394	0	1,393,394	436,415	24,257	15,147	9,647	485,467	558,905	2.49	3.74	6.23	12.45	1,391,871	8.82
Vlg. Of Bartonville	261	79,250	9,988	69,262	31,844	759	699	384	33,686	36,648	1.89	2.84	4.73	9.45	69,272	10.76
Limestone	148	44,938	0	44,938	28,960	1,060	415	407	30,842	33,622	1.34	2.01	3.35	6.70	45,053	17.37
Tuscarora	43	13,056	0	13,056	1,994	165	72	0	2,231	2,422	5.39	8.09	13.48	26.95	13,054	4.32
West Peoria	74	22,469	0	22,469	21,703	221	161	132	22,218	23,099	0.97	1.46	2.43	4.85	22,407	25.02
Dunlap	141	42,813	0	42,813	11,245	371	321	118	12,055	13,193	3.25	4.88	8.13	16.25	42,881	7.12
Chillicothe	89	27,024	0	27,024	12,647	614	389	24	13,674	14,661	1.84	2.76	4.60	9.20	26,976	12.80
Logan-Trivol	31	9,413	0	9,413	7,877	379	82	24	8,363	8,773	1.07	1.61	2.68	5.35	9,389	22.48
City of Streator	528	160,321	0	160,321	62,896	297	498	653	64,344	67,850	2.36	3.54	5.90	11.80	160,126	10.16
Leonore Fire Dist.	3	911	0	911	1,453	0	0	0	1,453	1,453	0.63	0.95	1.58	3.15	915	40.36
Reading Twnshp	28	8,502	0	8,502	17,844	33	12	71	17,960	18,280	0.47	0.71	1.18	2.35	8,592	53.45

Total cost per fire protection customer based on number of Hydrant



Act. No.	Account	Utility Depreciator	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	INTANGIBLE PLANT	0										
301	Organizator	0	0	0	0							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	0	0	0	0							1
	SOURCE OF SUPPLY PLANT	387,66C										
303	Land and land right:	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvement:	202,392	0	202,392	145,192	57,200	0	0	0	0	0	13
305	Collecting reservoir:	11,749	0	11,749	11,749							1
306	Intakes	89,601	0	89,601	60,178	29,423						2
307	Wells	15,840	0	15,840	10,639	5,201						2
308	Infiltration Gallerie:	0	0	0	0	0						2
309	Supply mains	68,078	0	68,078	45,723	22,355						2
339	Other plant	0	0	0	0	0						2
	PUMPING PLANT	1,578,53C										
303	Land and land right:	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvement:	271,743	0	271,743	155,89E	76,223	39,623	0	0	0	0	13
310	Power Generation Equip	75,692	0	75,692	43,424	21,231	11,037					12
310	Other power productior	0	0	0	0	0	0					12
311	Hydraulic Pumping	5,403	0	5,403	3,100	1,516	788					12
311	Electrical Pumping	1,190,146	0	1,190,146	682,781	333,830	173,534					12
311	Diesel Pumping	35,546	0	35,546	20,393	9,970	5,183					12
339	OtherPlant & Misc. Equip	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	2,951,557										
302	Land and land right:	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvement:	1,073,569	0	1,073,56E	721,035	352,534	0	0	0	0	0	13
320	Water treatment	1,877,988	0	1,877,98E	1,261,30E	616,685						2
339	Other Plant & Misc. Equip	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	8,671,17E										
303	Land and land right:	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvement:	10,245	0	10,245	1,818	889	691	0	2,197	3,843	808	13
330	Dist. reservoirs and standpipe	193,277	0	193,277			193,277					4
331	Mains	2,678,40E	0	2,678,40E	1,536,591	751,281	390,536					12
333	Services	3,248,92E	0	3,248,92E						3,248,92E		7
334	Meters	890,655	0	890,655				890,655				6
334	Meter installations	966,625	0	966,625				966,625				6
335	Hydrants	683,040	0	683,040							683,040	8
336	Backflow Prevention Device:	0	0	0						0		7
339	OtherPlant & Misc. Equip	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	1,170,442										
303	Land and land right:	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvement:	195,764	0	195,764	67,706	32,822	11,736	0	26,788	46,860	9,852	9
340	Office furniture	108,980	0	108,980	37,691	18,272	6,533	0	14,913	26,086	5,484	9
341	Transportator	275,285	0	275,285	95,209	46,155	16,504	0	37,669	65,895	13,853	9
342	Stores	3,218	0	3,218	1,113	540	193	0	440	770	162	9
343	Tools etc	109,127	0	109,127	37,742	18,296	6,542	0	14,933	26,122	5,492	9
344	Laboratory	36,260	0	36,260	12,541	6,079	2,174	0	4,962	8,680	1,825	9
345	Power operatoc	142,317	0	142,317	49,221	23,861	8,532	0	19,474	34,066	7,162	9
346	Communications	282,036	0	282,036	97,544	47,287	16,908	0	38,593	67,511	14,193	9
347	Miscellaneous	17,455	0	17,455	6,037	2,927	1,046	0	2,389	4,178	878	9
348	Other Tangible Plan	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	14,759,367	0	14,759,367	5,104,62E	2,474,576	884,837	0	2,019,63E	3,532,93E	742,749	
	Allocation Code 9 Calculator	Cross check =		14,759,367	34.59%	16.77%	6.00%	0.00%	13.68%	23.94%	5.03%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
Explanation of Allocation Codes

- 1 This code refers to allocations made 100 percent to Base Cost. Base Costs are costs which tend to vary with the quantity of water used and do not contain elements necessary to meet variations in demand.
- 2 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum consumption on the Maximum Day. Extra Capacity costs are those costs associated with meeting rate of use requirements in excess of the average.
- 3 This code refers to allocations divided between Base Cost and Extra Capacity Cost on the ratio of the average annual consumption per day to the maximum hourly consumption.
- 4 This code refers to allocations made 100 percent to Extra Capacity - Maximum Hour.
- 5 This code refers to allocations made 100 percent to commercial costs associated with serving customers irrespective to the amount of water used or the maximum demand. They include meter reading, billing, customer accounting and collection expenses.
- 6 This code refers to allocations made 100 percent to maintenance and capital charges on customer meters.
- 7 This code refers to allocations made 100 percent to maintenance and capital charges on customer services.
- 8 This code refers to allocations made 100 percent to Fire Protection - Hydrants.
- 9 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of plant in service as developed and shown on page 6 of 17 of this Schedule.
- 10 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of operating and maintenance expenses has been allocated before administrative and general expenses and without considering fuel, power and chemical costs.

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
Explanation of Allocation Codes (continued)

- 11 This code refers to allocations divided among various cost functions in the same ratio as the average allocation of labor costs if available or on the basis of Allocation Code 10 if not.
- 12 This code refers to allocations divided among Base Cost, Extra Capacity -Maximum Day and Extra Capacity - Maximum Hour.
- 13 This code refers to allocations divided among various cost functions in the same percentage ratio as the average of all items in that subgroup.

Illinois-American Water Company  
Docket No. 07-0507  
ICC Staff Exhibit 7.0  
Schedule 7.1 - P

ITEM	E-2 PRESENT RATES	E-2 PROPOSED RATES	STAFF RATES	E-4 RESIDENTIAL		E-4 COMMERCIAL		E-4 INDUSTRIAL		E-4 LARGE INDUSTRIAL		E-4 OTHER PUBLIC AUTH.		E-4		TOTAL	
				BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.		
CUS CHARGES, MONTHLY																	
5/8" disk	11.52	13.91	11.52	49,806	0	3,843	0	24	0		0	161	0	0	0	53,834	
3/4" disk	14.65	17.70	14.65	191	0	284	0	36	0		0	44	0	0	0	554	
1" disk	21.38	25.82	21.38	599	0	529	0	36	0		0	59	0	0	0	1,222	
1 1/2" disk	47.46	57.33	47.46	109	0	335	0	36	0		0	15	0	0	0	495	
2" disk	73.53	88.82	73.53	55	0	232	0	48	0		0	176	0	0	0	510	
3" disk	141.33	170.71	141.33	0	0	13	0	0	0		0	0	0	0	0	13	
4" disk	235.20	284.10	235.20	0	0	13	0	12	0		0	44	0	0	0	69	
6" disk	464.66	561.26	464.66	0	0	0	0	0	0	12	0	15	0	0	0	27	
				0	0	0	0	0	0	0	0	0	0	0	0	0	
5/8" disk - Saunemin	9.55	11.54	9.55	0	0	0	0	0	0	0	0	0	0	0	0	0	
3/4" disk - Saunemin	12.14	14.66	12.14	0	0	0	0	0	0	0	0	0	0	0	0	0	
1" disk - Saunemin	17.72	21.40	17.72	0	0	0	0	0	0	0	0	0	0	0	0	0	
1 1/2" disk - Saunemin	39.33	47.51	39.33	0	0	0	0	0	0	0	0	0	0	0	0	0	
2" disk - Saunemin	60.93	73.60	60.93	0	0	0	0	0	0	0	0	0	0	0	0	0	
3" disk - Saunemin	117.12	141.47	117.12	0	0	0	0	0	0	0	0	0	0	0	0	0	
4" disk - Saunemin	194.91	235.43	194.91	0	0	0	0	0	0	0	0	0	0	0	0	0	
6" disk - Saunemin	385.06	465.11	385.06	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Bills				50,759	0	5,249	0	192	0	12	0	512	0	0	0	56,724	
TOTAL CUS CHARGE REVENUES																	
	Present			598,541	0	97,567	0	9,634	0	5,669	0	34,454	0	0	0	745,865	
	Proposed			722,726	0	117,832	0	11,637	0	6,847	0	41,617	0	0	0	900,660	
	Staff			598,541	0	97,567	0	9,634	0	5,669	0	34,454	0	0	0	745,865	
MONTHLY USAGE CHARGES																	
	(100 cubic feet)			(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)	
First 25 CCf	2.5379	3.0276	3.4940	340,307	0	44,440	0	2,455	0		0	5,712	0	0	0	392,914	
Next 975 CCf	2.2988	2.2559	2.9218	22,845	0	80,857	0	25,653	0		0	40,794	0	0	0	170,149	
Over 1,000 CCf	2.2241	1.8067	2.5942	620	0	0	0	15,973	0		0	158,275	0	0	0	174,868	
Standby -- first 1,000 CCf	1.6321	2.0683	1.6990	0	0	0	0		0	11,200	0		0	0	0	11,200	
Standby -- over 1,000 CCf	0.9246	1.1717	1.1717	0	0	0	0		0	22,899	0		0	0	0	22,899	
Standby -- demand charge	0.6500	0.8200	0.8200	0	0	0	0		0	57,453	0	0	0	0	0	57,453	
Standby -- excess demand charge	3.0688	3.8889	3.8889	0	0	0	0	0	0	0	0	0	0	0	0	0	
Standby -- supplemental dem. svc.	1.5650	1.9830	1.9830	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0.0000	0.0000	0.0000	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Usage				363,772	0	125,297	0	44,081	0	91,552	0	204,781	0	0	0	829,483	

Illinois-American Water Company  
Docket No. 07-0507  
ICC Staff Exhibit 7.0  
Schedule 7.1 - P

ITEM	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		LARGE INDUSTRIAL		OTHER PUBLIC AUTH.		BILL ANA.	
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.		
USAGE CHARGE REVENUES	Present	917,560	0	298,658	0	100,727	0	76,796	0	460,293	0	0
	Proposed	1,082,970	0	316,952	0	94,162	0	97,107	0	395,276	0	0
	Staff	1,257,390	0	391,521	0	124,968	0	92,971	0	549,747	0	0
OTHER ADJUSTMENTS Reconciliation	Present	0	0	0	0	0	0	0	0	0	0	0
	Proposed	0	0	0	0	0	0	0	0	0	0	0
	Staff	0	0	0	0	0	0	0	0	0	0	0
TOTAL METERED REVENUES	Present	1,516,101	0	396,225	0	110,361	0	82,465	0	494,747	0	0
	Proposed	1,805,696	0	434,784	0	105,799	0	103,954	0	436,893	0	0
	Staff	1,855,930	0	489,088	0	134,602	0	98,640	0	584,201	0	0
PVT. FIRE PROT RATES, MONTHLY												
Size Connection		Less than 3"	3"	4"	6"	8"	10"	12"	16"		PRIVATE HYDRANTS	
Present	E-2	9.00	21.00	27.00	71.00	146.00	260.00	418.00	885.00		0.00	
Proposed	E-2	10.87	25.37	32.61	85.76	176.35	314.05	504.90	1,068.99		0.00	
Per Cost of Service Study		6.00	13.00	27.00	71.00	146.00	260.00	418.00	885.00		N/A	
Staff		6.00	13.00	27.00	71.00	146.00	260.00	418.00	885.00		0.00	
Units (ANNUAL)	E-4	12	0	141	334	144	12	0	0		0	
NON-METERED REVENUES												
	PVT. FIRE	PUBLIC FIRE			OTHER OPERATING		VARIABLE REVENUES		TOTAL NON-METERED			
		MUNICIPAL	SURCHARGE	TOTAL								
Present	51,554	0	323,381	323,381	4,202		9,826		388,963			
Proposed	62,271	0	396,257	396,257	10,882		9,826		479,235			
Staff	51,520	0	443,648	443,648	10,882		12,081		518,130			
TOTAL REVENUES												
Present	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LG. INDUST.	PUB. AUTH.							
Proposed	1,516,101	396,225	110,361	82,465	494,747							
Staff	1,805,696	434,784	105,799	103,954	436,893							
Staff	1,855,930	489,088	134,602	98,640	584,201							
PER STAFF												
Cost of Service	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LG. INDUST.	PUB. AUTH.							
Percent Increase	1,852,838	491,858	148,252	98,677	593,783							
Percent Cost of Service	22.4	23.4	22.0	19.6	18.1							
Percent Cost of Service	100.2	99.4	90.8	100.0	98.4							
Percent Increase -- Company	19.1	9.7	(4.1)	26.1	(11.7)							
Percent Cost of Service -- Company	97.5	88.4	71.4	105.3	73.6							

ADJUST.	BILL ANA.	_OTHER WATER UTILITIES_			TOTAL
		ADJUST.	BILL ANA.	ADJUST.	
0	0	0	0	0	1,854,035
0	0	0	0	0	1,986,467
0	0	0	0	0	2,416,596
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	2,599,900
0	0	0	0	0	2,887,126
0	0	0	0	0	3,162,461

NON-METERED	TOTAL
388,963	2,988,863
479,235	3,366,362
518,130	3,680,591
PUB. FIRE	PVT FIRE
443,621	51,568
37.2	(0.1)
100.0	99.9
23.2	12.6
108.0	120.8

ILLINOIS COMMERCE COMMISSION  
 Cost of Service Study  
 "Demand Factors"

<u>DEMAND FACTORS</u>			
<u>Customer Class</u>	<u>Max Day</u>	<u>Max Hour</u>	
Residential	2.20	6.00	(1)
Commercial	1.50	4.30	(1)
Industrial	1.70	3.00	(1)
Public Authority	1.40	2.80	(1)
Other Water Utilities	1.30	2.00	(1)
Fire Protection	0.63	5.04	
Gallons Per Minute	3,500		(1)
Hours of Protection	3		
<u>MGD PUMPAGE</u>			
Average Daily Rate		1.756	(2)
Max. Daily Rate		2.351	(2)
Max. Hourly Pumpage Rate		3.264	(2)
Max. Hourly Consumption Rate		3.294	(2)
(Pumpage plus Storage Drawdown)			

(1) Source: Illinois-American Exhibit 11.01  
 page I-4

(2) Source: Reply to Staff data request ML 2.03  
 2002 data

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	74.69%	25.31%					
Base-Max Hr.	3	53.31%		46.69%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	57.73%	16.74%	14.17%	0.00%	3.79%	5.20%	2.36%
Adm. and Gen	10	53.45%	17.63%	13.01%	8.06%	2.84%	3.53%	1.48%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	53.31%	18.06%	28.63%				

Refer to last page for brief allocation code explanations



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	GENERAL PLANT	1,275,086										
303	Land and land rights	4,744	0	4,744	2,739	794	672	0	180	247	112	9
304	Structures and improvements	147,587	45,559	102,028	58,906	17,083	14,460	0	3,867	5,302	2,410	9
340	Office furniture	84,870	40,336	44,534	25,712	7,456	6,312	0	1,688	2,314	1,052	9
341	Transportation	259,677	79,580	180,097	103,979	30,154	25,524	0	6,827	9,359	4,254	9
342	Stores	17,123	(19,155)	36,278	20,945	6,074	5,142	0	1,375	1,885	857	9
343	Tools etc	371,559	59,223	312,336	180,327	52,294	44,266	0	11,839	16,232	7,378	9
344	Laboratory	85,167	23,981	61,186	35,326	10,244	8,672	0	2,319	3,180	1,445	9
345	Power operated	6,237	(34,164)	40,401	23,325	6,764	5,726	0	1,531	2,100	954	9
346	Communications	268,032	50,398	217,634	125,651	36,438	30,844	0	8,249	11,310	5,141	9
347	Miscellaneous	30,090	5,470	24,620	14,214	4,122	3,489	0	933	1,279	582	9
348	Other Tangible Plant			0	0	0	0	0	0	0	0	9
399	RECONCILIATION			0	0	0	0	0	0	0	0	9
	TOTAL PLANT IN SERVICE	17,172,904	5,988,638	11,184,266	6,457,218	1,872,580	1,585,098	0	423,937	581,236	264,198	
	Allocation Code 9 Calculation	Cross check =		11,184,266	57.73%	16.74%	14.17%	0.00%	3.79%	5.20%	2.36%	
				Total	Base Cost	Max Day	Max Hour					
	Small Main net Plant in Service			2,339,460	1,247,144	422,580	669,736					
	Small Main net CIAC			1,551,939	827,324	280,329	444,286					
	Total Plant net CIAC			1,875,595	999,862	338,791	536,942					
	Allocated Total Plant less General				5,866,095	1,701,155	1,439,991					
	% Small Main to Allocated Total Plant				21.26%	24.84%	46.51%					
	Small Main with General Plant Allocated				1,372,818	465,163	737,225					
	Small Main with General Plant Allocated less CIAC				545,494	184,834	292,939					
	Allocated Total Plant less CIAC				5,457,356	1,533,788	1,048,156					

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
		CLH 1.01A-R4										
	SOURCE OF SUPPLY	14,552										
601	Salaries and Wages	6,373	0	6,373	4,760	1,613						2
610	Purchased water	0	0	0	0							1
615	Purchased Power	6,378	0	6,378	6,378							1
616	Fuel for Power Prod.	1,801	0	1,801	1,801							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	35,501										
620	Materials and Supplies	1,537	0	1,537	1,148	389						2
631	Contractual Serv.	1,804	0	1,804	1,347	457						2
635	Contractual Serv. - Testing	162	0	162	121	41						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	0	0	0	0	0						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
668	Water Res. Conserv. Exp.	0	0	0	0	0						2
675	Misc. Expenses	31,998	0	31,998	23,900	8,098						2
	PUMPING EXPENSES	333,870										
601	Salaries and Wages	206,452	0	206,452	110,058	37,292	59,103					12
615	Purchased Power	127,332	0	127,332	127,332							1
616	Fuel for power production	0	0	0	0							1
620	Materials and Supplies	86	0	86	46	16	25					12
631	Contractual Serv.	0	0	0	0	0	0					12
635	Contractual Serv. - Testing	0	0	0	0	0	0					12
636	Contractual Serv. - Other	0	0	0	0	0	0					12
641	Rental of Property	0	0	0	0	0	0					12
	PUMPING EXPENSES	9,274										
642	Rental of Equipment	521	0	521	278	94	149					12
650	Transportation Expenses	0	0	0	0	0	0					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	8,753	0	8,753	4,666	1,581	2,506					12
	WATER TREATMENT EXPENSE	258,387										
601	Salaries and Wages	195,169	0	195,169	145,775	49,394						2
615	Purchased Power	0	0	0	0	0						2
616	Fuel for power production	0	0	0	0	0						2
618	Chemicals	60,849	0	60,849	60,849							1
620	Materials and Supplies	2,369	0	2,369	1,769	600						2

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	WATER TREATMENT EXPENSE	79,097										
631	Contractual Serv.	0	0	0	0	0						2
635	Contractual Serv. - Testing	342	0	342	255	87						2
636	Contractual Serv. - Other	0	0	0	0	0						2
641	Rental of Property	0	0	0	0	0						2
642	Rental of Equipment	307	0	307	229	78						2
650	Transportation Exp.	0	0	0	0	0						2
658	Insurance	0	0	0	0	0						2
675	Misc. Expenses	78,448	0	78,448	58,594	19,854						2
	TRANSMISSION/DISTRIBUTION	213,732										
601	Salaries and Wages	137,212	0	137,212	57,611	16,811	26,643	0	13,062	16,266	6,818	13
661	Storage Facilities	0	0	0	0	0	0					4
662	Mains	56,189	0	56,189	29,954	10,150	16,086					12
663	Meters	7,806	0	7,806				7,806				6
664	Services	9,721	0	9,721						9,721		7
615	Purchased Power	2,804	0	2,804	2,804							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION	41,067										
618	Chemicals	0	0	0	0							1
620	Materials and Supplies	5,893	0	5,893	2,474	722	1,144	0	561	699	293	13
672	Dist. reservoirs and standpipes	0	0	0	0		0					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	1,976	0	1,976	1,976							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property	488	0	488	205	60	95	0	46	58	24	13
677	Hydrants	4,075	0	4,075							4,075	8
642	Rental of Equipment	301	0	301	126	37	58	0	29	36	15	13
650	Transportation Exp.	(569)	0	(569)	(303)	(103)	(163)					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	28,903	0	28,903	12,136	3,541	5,612	0	2,751	3,426	1,436	13
	CUSTOMER ACCOUNTS EXPENSE	81,561										
601	Salaries and Wages	41,507	0	41,507				41,507				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	40,054	(404)	39,650	21,193	6,992	5,158	3,196	1,125	1,400	587	10
620	Materials and Supplies	0	0	0				0				5
	CUSTOMER ACCOUNTS EXPENSE	27,434										
631	Contractual Serv.	0	0	0				0				5
635	Contractual Serv. - Testing	0	0	0				0				5
636	Contractual Serv. - Other	0	0	0				0				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	0	0	0				0				5
650	Transportation Exp.	0	0	0				0				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	27,434	0	27,434				27,434				5



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	31,877	16,993	5,758	9,126	
Small mains with overhead	103,261	55,048	18,652	29,561	
Total Expense less Adm. & General and less Pro Forma Adjustments		677,482	157,801	116,416	
% Small Mains to Total Expense		8.13%	11.82%	25.39%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		92,967	36,851	58,404	
Depreciation		24,104	9,125	12,655	
Other Taxes		11,147	3,897	7,651	
Income Taxes		15,479	5,412	10,624	Total
Utility Operating Income		42,321	14,797	29,048	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		186,018	70,081	118,381	374,480

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	Residential	Commercial	Industrial	Large Industrial	Other Public Authority				Total
Remove From	213,855	54,847	17,807	13,775	74,195	0	0	0	374,480
Reallocate to Blocks	241,524	83,332	18,694	0	30,930	0	0	0	374,480
Net Adjustment	27,669	28,485	887	(13,775)	(43,265)	0	0	0	(0)

Customer Class	Annual Consumption			Max Day				Max Hour				Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	363,772	0.745	46.65%	220%	1.640	0.895	46.66%	600%	4.473	3.727	34.92%	50,759	88.48%	52,570	77.85%	51,187	87.10%
Commercial	125,297	0.257	16.07%	150%	0.385	0.128	6.70%	430%	1.104	0.847	7.94%	5,249	9.15%	9,640	14.27%	6,169	10.50%
Industrial	44,081	0.090	5.65%	170%	0.154	0.063	3.30%	300%	0.271	0.181	1.69%	192	0.33%	1,032	1.53%	347	0.59%
Large Industria	34,099	0.070	4.37%	170%	0.119	0.049	2.55%	300%	0.210	0.140	1.31%	12	0.02%	610	0.90%	61	0.10%
Other Public Auth.	204,781	0.420	26.26%	140%	0.588	0.168	8.76%	280%	1.175	0.755	7.08%	512	0.89%	3,678	5.45%	1,005	1.71%
	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
	0	0.000	0.00%		0.000	0.000	0.00%		0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
SUBTOTAL	772,030	1.582	99.01%		2.885	1.303	67.96%		7.233	5.651	52.93%	56,724	98.88%	67,529	100.00%	58,768	100.00%
Fire Prot.	7,720	0.016	0.99%		0.630	0.614	32.04%		5.040	5.024	47.07%	641	1.12%	-----	-----	-----	-----
TOTAL	779,750	1.598	100.00%		3.515	1.917	100.00%		12.273	10.675	100.00%	57,365	100.00%	67,529	100.00%	58,768	100.00%

Number of public fire protection bills ignored as immateri:

No services assigned to public fire protection; services considered to be part of hydrant

No services assigned to private fire protection since customer generally pays for service lin

Fire Protection Consumption set at 1% of other consumer

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	OTHER PUBLIC AUTHORITIES				FIRE PROTECTION	TOTAL
Base	46.65%	16.07%	5.65%	4.37%	26.26%	0.00%	0.00%	0.00%	0.99%	100.00%
Maximum Day	46.66%	6.70%	3.30%	2.55%	8.76%	0.00%	0.00%	0.00%	32.04%	100.00%
Maximum Hour	34.92%	7.94%	1.69%	1.31%	7.08%	0.00%	0.00%	0.00%	47.07%	100.00%
Commercial	88.48%	9.15%	0.33%	0.02%	0.89%	0.00%	0.00%	0.00%	1.12%	100.00%
Meters	77.85%	14.27%	1.53%	0.90%	5.45%	0.00%	0.00%	0.00%	-----	100.00%
Services	87.10%	10.50%	0.59%	0.10%	1.71%	0.00%	0.00%	0.00%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	OTHER PUBLIC AUTHORITIES				FIRE PROTECTION	TOTAL
Base	968,076	333,442	117,309	90,745	544,966	0	0	0	20,545	2,075,084
Maximum Day	274,145	39,344	19,378	14,990	51,442	0	0	0	188,216	587,515
Maximum Hour	155,246	35,292	7,525	5,821	31,462	0	0	0	209,256	444,602
Commercial	126,107	13,040	477	30	1,272	0	0	0	1,594	142,519
Meters	120,118	22,025	2,358	1,394	8,403	0	0	0	-----	154,298
Services	193,798	23,357	1,313	231	3,804	0	0	0	-----	222,504
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	77,038	77,038
Adjustments *	(12,321)	(3,128)	(995)	(759)	(4,301)	0	0	0	(1,459)	(22,963)
Small Main Adjustment	27,669	28,485	887	(13,775)	(43,265)	0	0	0		(0)
TOTAL COST OF SERVICE	1,852,838	491,858	148,252	98,677	593,783	0	0	0	495,189	3,680,597
Percent of COSS	50.34%	13.36%	4.03%	2.68%	16.13%	0.00%	0.00%	0.00%	13.45%	100.00%

Special Tariff Revenues	0
Other Operating Revenues	10,882
Unbilled Revenues	12,081
Total Revenues	3,703,561

\* for Other and for Unbilled

**ILLINOIS COMMERCE COMMISSION**  
**Cost of Service Study**  
**"Fire Protection Allocation"**

FIRE PROTECTION	Equiv. Conn.
Public, monthly	5,376
Private, monthly	<u>733</u>
Total Equiv. Connections	<u>6,109</u>
Total Fire Protection per Cost of Service Study	495,189
Less Billing Costs	1,594
Less Hydrant Costs	<u>77,038</u>
Total Non-hydrant Fire Protection Costs	<u>416,558</u>
Total Non-hydrant Fire Protection Costs Per Equiv. Connection, monthly	68.19
Public Fire Protection Connection Costs Plus Hydrant Costs	366,583 <u>77,038</u>
Total Public Fire Protection Costs	<u>443,621</u>
Total Private Fire Protection Connection Costs Plus Billing Costs Plus Hydrant Costs	49,975 1,594 <u>0</u>
Total Private Fire Protection Costs	<u>51,568</u>

"Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3"	0.056	6.28	6.00
3	0.162	13.50	13.00
4	0.344	25.96	27.00
6	1.000	70.67	71.00
8	2.131	147.80	146.00
10	3.832	263.81	260.00
12	6.190	424.59	418.00
16	13.192	902.00	885.00

# - ratio based on capacity

Per Hydrant Cost Customer	\$990.23 Hydrants	Total Cost	Municipal Paid	Customer Surcharge	MONTHLY BILLS				Fire Prot Bills	Equiv. Fire Prot Bills	Monthly Rates				Actual Surcharge Connections Revenues Per Hydrant	
					5/8"	3/4"	1"	1 1/2"			5/8"	3/4"	1"	1 1/2"		
Total	448	443,621	0	443,621	50,720	434	1,087	1,052	53,292	59,346					443,648	
Outside	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
City of Pontiac	396	392,129	0	392,129	45,471	392	991	906	47,760	53,066	7.39	11.09	18.48	36.95	392,167	10.05
Pontiac Rural	34	33,668	0	33,668	3,129	42	61	120	3,351	3,942	8.54	12.81	21.35	42.70	33,666	8.21
Saunemin	18	17,824	0	17,824	2,119	0	36	26	2,181	2,338	7.62	11.43	19.05	38.10	17,815	10.10

Total cost per fire protection customer based on number of Hydrant

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Equiv. Meters and Services"

ITEM	METER RATIO	SERVICE RATIO	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	LARGE INDUSTRIAL	OTHER PUBLIC AUTH.			TOTAL
METER SIZE										
5/8" disk	1.0	1.0	49,806	3,843	24	-	161	-	-	53,834
3/4" disk	1.5	1.1	191	284	36	-	44	-	-	554
1" disk	2.5	1.4	599	529	36	-	59	-	-	1,222
1 1/2" disk	5.0	1.8	109	335	36	-	15	-	-	495
2" disk	8.0	2.5	55	232	48	-	176	-	-	510
3" disk	15.0	3.0	-	13	-	-	-	-	-	13
4" disk	25.0	4.0	-	13	12	-	44	-	-	69
6" disk	50.0	5.0	-	-	-	12	15	-	-	27
8" disk	80.0	6.0	-	-	-	-	-	-	-	-
10" disk	115.0	6.5	-	-	-	-	-	-	-	-
12" disk	168.0	7.0	-	-	-	-	-	-	-	-
3" turbine	17.5	3.0	-	-	-	-	-	-	-	-
4" turbine	30.0	4.0	-	-	-	-	-	-	-	-
6" turbine	62.5	5.0	-	-	-	-	-	-	-	-
8" turbine	90.0	6.0	-	-	-	-	-	-	-	-
10" turbine	145.0	6.5	-	-	-	-	-	-	-	-
Parallel	?	?	-	-	-	-	-	-	-	-
Equiv Meters			52,570	9,640	1,032	610	3,678	-	-	67,529
Equiv Services			51,187	6,169	347	61	1,005	-	-	58,768

Act. No.	Account	Utility Depreciation	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
	CLH 1.01B-R2											
	INTANGIBLE PLANT	0										
301	Organization	0	0	0	0							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	0	0	0	0							1
	SOURCE OF SUPPLY PLANT	37,166										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	3,584	0	3,584	3,099	485	0	0	0	0	0	13
305	Collecting reservoirs	11,727	0	11,727	11,727							1
306	Intakes	6,417	0	6,417	4,793	1,624						2
307	Wells	968	0	968	723	245						2
308	Infiltration Galleries	0	0	0	0	0						2
309	Supply mains	14,470	0	14,470	10,808	3,662						2
339	Other plant	0	0	0	0	0						2
	PUMPING PLANT	41,467										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	325	0	325	173	59	93	0	0	0	0	13
310	Power Generation Equip.	875	0	875	466	158	250					12
310	Other power production	776	0	776	414	140	222					12
311	Steam pumping	0	0	0	0	0	0					12
311	Electrical Pumping	39,491	0	39,491	21,052	7,133	11,305					12
311	Diesel Pumping	0	0	0	0	0	0					12
339	Other Plant & Misc. Equip.	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	123,095										
302	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	49,303	0	49,303	36,825	12,478						13
320	Water treatment	73,792	0	73,792	55,116	18,676						2
339	Other Plant & Misc. Equip.	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	208,615										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	3,829	0	3,829	688	233	412	0	819	1,362	315	13
330	Dist. reservoirs and standpipes	2,253	0	2,253			2,253					4
331	Mains	69,051	0	69,051	36,810	12,473	19,768					12
333	Services	72,863	0	72,863						72,863		7
334	Meters	34,416	0	34,416					34,416			6
334	Meter installations	9,365	0	9,365					9,365			6
335	Hydrants	16,838	0	16,838							16,838	8
336	Backflow Prevention Devices	0	0	0							0	7
339	Other Plant & Misc. Equip.	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	50,358										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	4,494	0	4,494	2,001	628	376	0	488	813	188	9
340	Office furniture	5,884	0	5,884	2,620	823	492	0	640	1,064	246	9
341	Transportation	9,498	0	9,498	4,229	1,328	794	0	1,032	1,718	397	9
342	Stores	420	0	420	187	59	35	0	46	76	18	9
343	Tools etc	9,437	0	9,437	4,202	1,319	789	0	1,026	1,707	394	9
344	Laboratory	3,279	0	3,279	1,460	458	274	0	356	593	137	9
345	Power operated	402	0	402	179	56	34	0	44	73	17	9
346	Communications	16,189	0	16,189	7,208	2,263	1,353	0	1,760	2,928	677	9
347	Miscellaneous	755	0	755	336	106	63	0	82	137	32	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	460,701	0	460,701	205,116	64,406	38,513	0	50,073	83,334	19,258	
	Allocation Code 9 Calculation	Cross check =		460,701	44.52%	13.98%	8.36%	0.00%	10.87%	18.09%	4.18%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenues at Present and Proposed Rates"

ITEM	E-2 PRESENT RATES	E-2 PROPOSED RATES	STAFF RATES	E-5 RESIDENTIAL		E-5 COMMERCIAL		E-5 INDUSTRIAL		E-5 OTHER PUBLIC AUTH.		TOTAL
				BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	
CUS CHARGES, MONTHLY												
5/8" disk	5.96	7.20	11.52	23,520	0	1,596	0	96	0	24	0	25,236
3/4" disk	6.56	7.92	14.65	636	0	132	0	36	0	12	0	816
1" disk	8.35	10.09	21.38	24	0	276	0	120	0	0	0	420
1 1/2" disk	10.73	12.96	25.00		0	204	0	36	0	0	0	240
2" disk	17.29	20.88	35.00		0	300	0	48	0	24	0	372
3" disk	65.57	79.20	62.00	0	0	36	0	0	0	12	0	48
4" disk	83.45	100.80	104.00	0	0	36	0	24	0		0	60
				0	0	0	0	0	0		0	0
				0	0	0	0	0	0	0	0	0
Total Bills				24,180	0	2,580	0	360	0	72	0	27,192
TOTAL CUS CHARGE REVENUES												
Present				144,552	0	25,423	0	5,029	0	1,424	0	176,428
Proposed				174,623	0	30,709	0	6,075	0	1,719	0	213,127
Staff				280,781	0	47,797	0	9,275	0	2,036	0	339,889
MONTHLY USAGE CHARGES												
	(100 cubic feet)			(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)		(100 cubic feet)
First 30 CCF	1.9000	2.2950	2.7000	181,742	0	21,901	0	606	0	1,451	0	205,700
Next 670 CCF	1.3900	1.6790	1.8476	12,166	0	44,871	0	2,363	0		0	59,400
Over 700 CCF	0.8300	1.0026	1.1051	377	0	23,000	0	3,447	0		0	26,825
				0	0	0	0	0	0		0	0
				0	0	0	0	0	0	0	0	0
Total Usage				194,286	0	89,772	0	6,417	0	1,451	0	291,925

Illinois-American Water Company  
Docket No. 02-0690  
ICC Staff Exhibit 7.0  
Schedule 7.1 - SB

ITEM	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		OTHER PUBLIC AUTH.		BILL ANA.	ADJUST.	BILL ANA.	
	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.				
USAGE CHARGE REVENUES	Present	362,535	0	123,072	0	7,298	0	2,756	0	0	0	0
	Proposed	437,904	0	148,661	0	8,815	0	3,329	0	0	0	0
	Staff	513,600	0	167,453	0	9,813	0	3,917	0	0	0	0
OTHER ADJUSTMENTS	Present	0	0	0	0	0	0	0	0	0	0	0
Reconciliation	Proposed	0	0	0	0	0	0	0	0	0	0	0
	Staff	0	0	0	0	0	0	0	0	0	0	0
TOTAL METERED REVENUES	Present	507,086	0	148,496	0	12,327	0	4,180	0	0	0	0
	Proposed	612,527	0	179,370	0	14,890	0	5,049	0	0	0	0
	Staff	794,381	0	215,250	0	19,088	0	5,953	0	0	0	0
PVT. FIRE PROT RATES, MONTHLY												
Size Connection		Less than 3"	3"	4"	6"	8"	10"	12"	16"	PRIVATE HYDRANTS		
Present	E-2	10.68	18.90	30.01	53.55	77.53	106.14			0.00		
Proposed	E-2	12.90	22.83	36.25	64.68	93.65	128.21			0.00		
Per Cost of Service Study		11.20	18.70	31.70	78.10	158.30	278.80	445.90	942.00	N/A		
Staff		11.20	18.70	31.70	78.10	158.30	278.80	445.90	942.00	0.00		
Units (ANNUAL)	E-5	24	0	0	173	61	12	0	0			
NON-METERED REVENUES		PVT. FIRE	PUBLIC FIRE			OTHER OPERATING	VARIABLE REVENUES	TOTAL NON-METERED				
Present		15,530	MUNICIPAL	SURCHARGE	TOTAL	0	0	106,650				
Proposed		18,758	91,120	0	91,120	18,944	6,654	154,352				
Staff		26,789	410,231	0	410,231	18,944	8,480	464,445				
TOTAL REVENUES	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUB. AUTH.	PUB. FIRE	PVT FIRE						
Present	507,086	148,496	12,327	4,180	91,120	15,530						
Proposed	612,527	179,370	14,890	5,049	109,996	18,758						
Staff	794,381	215,250	19,088	5,953	410,231	26,789						
PER STAFF	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUB. AUTH.	PUB. FIRE							
Cost of Service	812,820	225,261	18,299	5,718	410,231							
Percent Increase	56.7	45.0	54.8	42.4	350.2							
Percent Cost of Service	97.7	95.6	104.3	104.1	100.0							
Percent Increase -- Company	20.8	20.8	20.8	20.8	20.7							
Percent Cost of Service -- Company	75.4	79.6	81.4	88.3	26.8							

Illinois-American Water Company  
 Docket No. 02-0690  
 ICC Staff Exhibit 7.0  
 Schedule 7.1 - SB

ADJUST.	BILL ANA.	ADJUST.	BILL ANA.	ADJUST.	TOTAL
0	0	0	0	0	495,661
0	0	0	0	0	598,709
0	0	0	0	0	694,782
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	672,089
0	0	0	0	0	811,837
0	0	0	0	0	1,034,671

NON-METERED	TOTAL
106,650	885,389
154,352	1,094,943
464,445	1,936,136

PVT FIRE

26,790  
 72.5  
 100.0  
 20.8  
 70.0

-  
 -

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Demand Factors"

DEMAND FACTORS			
Customer Class	Max Day	Max Hour	
Residential	2.20	6.00	(1)
Commercial	1.50	4.30	(1)
Industrial	1.70	3.00	(1)
Public Authority	1.40	2.80	(1)
Other Water Utilities	1.30	2.00	(1)
Fire Protection	0.63	5.04	
Gallons Per Minute	3,500		(1)
Hours of Protection	3		
MGD PUMPAGE			
Average Daily Rate		0.598	(3)
Max. Daily Rate		1.725	(2)
Max. Hourly Pumpage Rate		2.395	(2)
Max. Hourly Consumption Rate		2.417	(2)
(Pumpage plus Storage Drawdown)			

- (1) Source: Illinois-American Exhibit 11.01, page I-4
- (2) Source: Reply to Staff data request ML 2.03  
0.733816 of Pontiac data

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Allocation to Cost Functions"

Description	Alloc. Code	Base Cost Percent	Extra Capacity		Customer Costs			Fire Service Percent
			Max Day Percent	Max Hour Percent	Billing Percent	Meter Percent	Services Percent	
Base Cost	1	100.00%						
Base-Max Day	2	34.66%	65.34%					
Base-Max Hr.	3	24.74%		75.26%				
Max Hour	4			100.00%				
Commercial	5				100.00%			
Meters	6					100.00%		
Services	7						100.00%	
Hydrants	8							100.00%
Plant	9	18.72%	35.28%	21.18%	0.00%	3.80%	14.01%	7.00%
Adm. and Gen	10	36.62%	10.51%	4.72%	41.85%	1.95%	3.18%	1.17%
Labor B'fits	11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base/Max Day/ Max Hour	12	24.74%	46.63%	28.63%				

Refer to last page for brief allocation code explanations



ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Plant in Service Allocation"

Act. No.	Account	Utility Cost	Depreciation Reserve	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
GENERAL PLANT		61,011										
303	Land and land rights		0	0	0	0	0	0	0	0	0	9
304	Structures and improvements			0	0	0	0	0	0	0	0	9
340	Office furniture	12,581	(727)	13,308	2,491	4,695	2,819	0	506	1,864	932	9
341	Transportation	39,255	10,804	28,451	5,325	10,038	6,027	0	1,082	3,986	1,993	9
342	Stores			0	0	0	0	0	0	0	0	9
343	Tools etc	9,175	48	9,127	1,708	3,220	1,933	0	347	1,279	639	9
344	Laboratory			0	0	0	0	0	0	0	0	9
345	Power operated			0	0	0	0	0	0	0	0	9
346	Communications			0	0	0	0	0	0	0	0	9
347	Miscellaneous			0	0	0	0	0	0	0	0	9
348	Other Tangible Plant			0	0	0	0	0	0	0	0	9
399	RECONCILIATION			0	0	0	0	0	0	0	0	9
TOTAL PLANT IN SERVICE		10,149,612	1,598,794	8,550,818	1,612,948	3,011,420	1,808,051	0	324,743	1,195,759	597,897	
Allocation Code 9 Calculation		Cross check =		8,550,818	18.72%	35.28%	21.18%	0.00%	3.80%	14.01%	7.00%	
				Total	Base Cost	Max Day	Max Hour					
Small Main net Plant in Service				4,451,115	1,101,182	2,075,676	1,274,257					
Small Main net CIAC and Advances				2,395,364	592,600	1,117,023	685,740					
Total Plant net CIAC and Advances				2,555,239	632,153	1,191,577	731,509					
Allocated Total Plant less General					1,603,423	2,993,467	1,797,272					
% Small Main to Allocated Total Plant					68.68%	69.34%	70.90%					
Small Main with General Plant Allocated					1,107,724	2,088,125	1,281,899					
Small Main with General Plant Allocated less CIAC					515,123	971,102	596,159					
Allocated Total Plant less CIAC					980,795	1,819,843	1,076,543					

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
		CLH 1.01A-R4										
	SOURCE OF SUPPLY	50										
601	Salaries and Wages		0	0	0		0					2
610	Purchased water	0	0	0	0							1
615	Purchased Power	50	0	50	50							1
616	Fuel for Power Prod.		0	0	0							1
618	Chemicals	0	0	0	0							1
	SOURCE OF SUPPLY	254										
620	Materials and Supplies	2	0	2	1		1					2
631	Contractual Serv.		0	0	0		0					2
635	Contractual Serv. - Testing		0	0	0		0					2
636	Contractual Serv. - Other		0	0	0		0					2
641	Rental of Property		0	0	0		0					2
642	Rental of Equipment		0	0	0		0					2
650	Transportation Exp.		0	0	0		0					2
658	Insurance		0	0	0		0					2
668	Water Res. Conserv. Exp.		0	0	0		0					2
675	Misc. Expenses	252	0	252	87		164					2
	PUMPING EXPENSES	2										
601	Salaries and Wages	3	0	3	1		1			1		12
615	Purchased Power		0	0	0							1
616	Fuel for power production		0	0	0							1
620	Materials and Supplies	(1)	0	(1)	(0)		(0)		(0)			12
631	Contractual Serv.		0	0	0		0		0			12
635	Contractual Serv. - Testing		0	0	0		0		0			12
636	Contractual Serv. - Other		0	0	0		0		0			12
641	Rental of Property		0	0	0		0		0			12
	PUMPING EXPENSES	(7)										
642	Rental of Equipment		0	0	0		0		0			12
650	Transportation Expenses		0	0	0		0		0			12
658	Insurance		0	0	0		0		0			12
675	Misc. Expenses	(7)	0	(7)	(2)		(3)		(2)			12
	WATER TREATMENT EXPENSE	3,556										
601	Salaries and Wages	3,556	0	3,556	1,233		2,323					2
615	Purchased Power	0	0	0	0		0					2
616	Fuel for power production		0	0	0		0					2
618	Chemicals		0	0	0							1
620	Materials and Supplies		0	0	0		0					2

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Revenue Requirement Allocation"

Act. No.	Account	Utility Cost	Staff Adjust.	Net Cost	Base Cost	Extra Capacity Max Day	Max Hour	Customer Costs			Fire Service	Alloc. Code
								Billing	Meter	Services		
	WATER TREATMENT EXPENSE											
		29										
631	Contractual Serv.	0	0	0	0	0	0					2
635	Contractual Serv. - Testing		0	0	0	0	0					2
636	Contractual Serv. - Other	0	0	0	0	0	0					2
641	Rental of Property	0	0	0	0	0	0					2
642	Rental of Equipment		0	0	0	0	0					2
650	Transportation Exp.	0	0	0	0	0	0					2
658	Insurance	0	0	0	0	0	0					2
675	Misc. Expenses	29	0	29	10	19						2
	TRANSMISSION/DISTRIBUTION											
		18,637										
601	Salaries and Wages	5,928	0	5,928	3,879	842	517	0	213	349	128	13
661	Storage Facilities	0	0	0			0					4
662	Mains	9,807	0	9,807	2,426	4,573	2,807					12
663	Meters	999	0	999					999			6
664	Services	1,634	0	1,634						1,634		7
615	Purchased Power	270	0	270	270							1
616	Fuel for Power Prod.	0	0	0	0							1
	TRANSMISSION/DISTRIBUTION											
		29,318										
618	Chemicals	0	0	0	0							1
620	Materials and Supplies	8,854	0	8,854	5,794	1,257	772	0	319	521	191	13
672	Dist. reservoirs and standpipes		0	0			0					4
631	Contractual Serv.	0	0	0	0	0	0	0	0	0	0	13
635	Contractual Serv. - Testing	15,814	0	15,814	15,814							1
636	Contractual Serv. - Other	0	0	0	0	0	0	0	0	0	0	13
641	Rental of Property		0	0	0	0	0	0	0	0	0	13
677	Hydrants	600	0	600							600	8
642	Rental of Equipment		0	0	0	0	0	0	0	0	0	13
650	Transportation Exp.	(1,350)	0	(1,350)	(334)	(630)	(386)					12
658	Insurance	0	0	0	0	0	0					12
675	Misc. Expenses	5,400	0	5,400	3,534	767	471	0	194	318	117	13
	CUSTOMER ACCOUNTS EXPENSE											
		37,100										
601	Salaries and Wages	23,137	0	23,137				23,137				5
615	Purchased Power	0	0	0				0				5
616	Fuel for Power Prod.	0	0	0				0				5
670	Bad Debt Expense	13,963	(141)	13,822	5,061	1,453	652	5,785	269	440	162	10
620	Materials and Supplies	0	0	0				0				5
	CUSTOMER ACCOUNTS EXPENSE											
		13,947										
631	Contractual Serv.	0	0	0				0				5
635	Contractual Serv. - Testing	0	0	0				0				5
636	Contractual Serv. - Other	0	0	0				0				5
641	Meter Reading	0	0	0				0				5
642	Rental of Equipment	0	0	0				0				5
650	Transportation Exp.	0	0	0				0				5
658	Insurance	0	0	0				0				5
675	Misc. Expenses	13,947	0	13,947				13,947				5



	Net Cost	Base Cost	Max Day	Max Hour	
Acct. 662 allocated to small mains	6,995	1,730	3,262	2,002	
Small mains with overhead	25,578	6,328	11,928	7,322	
Total Expense less Adm. & General and less Pro Forma Adjustments		37,824	10,768	4,831	
% Small Mains to Total Expense		16.73%	110.77%	151.58%	
Small Mains with Adm. & General and Pro Forma Adjustments* Allocated		29,218	55,443	34,037	
Depreciation		12,822	24,556	14,836	
Other Taxes		5,198	9,954	6,202	
Income Taxes		20,159	38,607	24,055	Total
Utility Operating Income		55,117	105,556	65,769	
TOTAL REVENUES ALLOCATED TO SMALL MAINS		122,514	234,117	144,899	501,530

\* excluding Fuel & Power, Chemical and Waste Disposal

Revenue Requirement from Small Mains	Residential	Commercial	Industrial	Other Public Authority					Total
Remove From	384,041	108,249	7,857	1,384	0	0	0	0	501,530
Reallocate to Blocks	366,845	126,322	5,618	2,745	0	0	0	0	501,530
Net Adjustment	(17,195)	18,073	(2,239)	1,361	0	0	0	0	(0)

Customer Class	Annual Consumption			Max Day				Max Hour				Commercial		Equivalent Meters		Equivalent Services	
	Usage	MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	% of Ave.	Amt. MGD	Excess MGD	%	Monthly Bills	%	Monthly No.	%	Monthly No.	%
Residential	194,286	0.398	65.89%	220%	0.876	0.478	39.68%	600%	2.389	1.991	25.98%	24,180	88.05%	24,534	72.36%	24,253	85.20%
Commercial	89,772	0.184	30.45%	150%	0.276	0.092	7.64%	430%	0.791	0.607	7.92%	2,580	9.39%	7,344	21.66%	3,497	12.28%
Industrial	6,417	0.013	2.18%	170%	0.022	0.009	0.76%	300%	0.039	0.026	0.34%	360	1.31%	1,614	4.76%	584	2.05%
Other Public Auth.	1,451	0.003	0.49%	140%	0.004	0.001	0.10%	280%	0.008	0.005	0.07%	72	0.26%	414	1.22%	133	0.47%
	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
	0	0.000	0.00%	0%	0.000	0.000	0.00%	0%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
	0	0.000	0.00%	130%	0.000	0.000	0.00%	200%	0.000	0.000	0.00%	0	0.00%	0	0.00%	0	0.00%
SUBTOTAL	291,925	0.598	99.01%		1.178	0.580	48.18%		3.228	2.630	34.31%	27,192	99.02%	33,906	100.00%	28,468	100.00%
Fire Prot.	2,919	0.006	0.99%		0.630	0.624	51.82%		5.040	5.034	65.69%	270	0.98%	-----	-----	-----	-----
TOTAL	294,844	0.604	100.00%		1.808	1.204	100.00%		8.268	7.664	100.00%	27,462	100.00%	33,906	100.00%	28,468	100.00%

Number of public fire protection bills ignored as immateri:

No services assigned to public fire protection; services considered to be part of hydrant

No services assigned to private fire protection since customer generally pays for service lin

Fire Protection Consumption set at 1% of other consumer

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Percent Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITIES					FIRE PROTECTION	TOTAL
Base	65.89%	30.45%	2.18%	0.49%	0.00%	0.00%	0.00%	0.00%	0.99%	100.00%
Maximum Day	39.68%	7.64%	0.76%	0.10%	0.00%	0.00%	0.00%	0.00%	51.82%	100.00%
Maximum Hour	25.98%	7.92%	0.34%	0.07%	0.00%	0.00%	0.00%	0.00%	65.69%	100.00%
Commercial	88.05%	9.39%	1.31%	0.26%	0.00%	0.00%	0.00%	0.00%	0.98%	100.00%
Meters	72.36%	21.66%	4.76%	1.22%	0.00%	0.00%	0.00%	0.00%	-----	100.00%
Services	85.20%	12.28%	2.05%	0.47%	0.00%	0.00%	0.00%	0.00%	-----	100.00%
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	100.00%	100.00%

ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Cost Allocation to Customer Groups"

DESCRIPTION	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITIES					FIRE PROTECTION	TOTAL
Base	232,134	107,260	7,667	1,733	0	0	0	0	3,488	352,282
Maximum Day	152,712	29,401	2,942	380	0	0	0	0	199,452	384,887
Maximum Hour	57,838	17,638	764	155	0	0	0	0	146,253	222,649
Commercial	175,449	18,720	2,612	522	0	0	0	0	1,962	199,266
Meters	34,977	10,470	2,301	590	0	0	0	0	-----	48,338
Services	194,047	27,977	4,676	1,066	0	0	0	0	-----	227,765
Fire Service-Hyd	-----	-----	-----	-----	-----	-----	-----	-----	91,357	91,357
Adjustments *	(17,140)	(4,279)	(424)	(90)	0	0	0	0	(5,491)	(27,424)
Small Main Adjustment	(17,195)	18,073	(2,239)	1,361	0	0	0	0		(0)
TOTAL COST OF SERVICE	812,820	225,261	18,299	5,718	0	0	0	0	437,021	1,499,119
Percent of COSS	54.22%	15.03%	1.22%	0.38%	0.00%	0.00%	0.00%	0.00%	29.15%	100.00%

Special Tariff Revenues	0
Other Operating Revenues	18,944
Unbilled Revenues	8,480
Total Revenues	1,526,544

\* for Other and for Unbilled

**ILLINOIS COMMERCE COMMISSION  
Cost of Service Study  
"Fire Protection Allocation"**

FIRE PROTECTION	Equiv. Conn.
Public, monthly	4,500
Private, monthly	<u>350</u>
Total Equiv. Connections	<u>4,850</u>
Total Fire Protection per Cost of Service Study	437,021
Less Billing Costs	1,962
Less Hydrant Costs	<u>91,357</u>
Total Non-hydrant Fire Protection Costs	<u>343,702</u>
Total Non-hydrant Fire Protection Costs Per Equiv. Connection, monthly	70.86
Public Fire Protection Connection Costs Plus Hydrant Costs	318,874 <u>91,357</u>
Total Public Fire Protection Costs	<u>410,231</u>
Total Private Fire Protection Connection Costs Plus Billing Costs Plus Hydrant Costs	24,828 1,962 <u>0</u>
Total Private Fire Protection Costs	<u>26,790</u>

"Private Fire Protection Rates"

Private Fire Prot.	Ratio #	Monthly COSS Rates	Monthly Staff Rates
less than 3"	0.056	11.20	11.20
3	0.162	18.70	18.70
4	0.344	31.65	31.70
6	1.000	78.12	78.10
8	2.131	158.26	158.30
10	3.832	278.82	278.80
12	6.190	445.90	445.90
16	13.192	942.02	942.00

# - ratio based on capacity

Per Hydrant Cost Customer	\$1,093.95 Hydrants	Total Cost	Municipal Paid	Customer Surcharge	MONTHLY BILLS				Fire Prot Bills	Equiv. Fire Prot Bills	Monthly Rates				Actual Surcharge Connections Revenues Per Hydrant
					5/8"	3/4"	1"	1 1/2"			5/8"	3/4"	1"	1 1/2"	
Total	375	410,231	410,231	0	0	0	0	0	0					0	
Outside	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0	
South Beloit	340	371,943	371,943	0	0	0	0	0	0					0 0.00	
Rockton Twtnshp.	16	17,503	17,503	0				0	0					0 0.00	
Roscoe	19	20,785	20,785	0				0	0	0.00	0.00	0.00	0.00	0 0.00	

Total cost per fire protection customer based on number of Hydrant

ITEM	METER RATIO	SERVICE RATIO	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTH.					TOTAL
METER SIZE											
5/8" disk	1.0	1.0	23,520	1,596	96	24	-	-	-	-	25,236
3/4" disk	1.5	1.1	636	132	36	12	-	-	-	-	816
1" disk	2.5	1.4	24	276	120	-	-	-	-	-	420
1 1/2" disk	5.0	1.8	-	204	36	-	-	-	-	-	240
2" disk	8.0	2.5	-	300	48	24	-	-	-	-	372
3" disk	15.0	3.0	-	36	-	12	-	-	-	-	48
4" disk	25.0	4.0	-	36	24	-	-	-	-	-	60
6" disk	50.0	5.0	-	-	-	-	-	-	-	-	-
8" disk	80.0	6.0	-	-	-	-	-	-	-	-	-
10" disk	115.0	6.5	-	-	-	-	-	-	-	-	-
12" disk	168.0	7.0	-	-	-	-	-	-	-	-	-
3" turbine	17.5	3.0	-	-	-	-	-	-	-	-	-
4" turbine	30.0	4.0	-	-	-	-	-	-	-	-	-
6" turbine	62.5	5.0	-	-	-	-	-	-	-	-	-
8" turbine	90.0	6.0	-	-	-	-	-	-	-	-	-
10" turbine	145.0	6.5	-	-	-	-	-	-	-	-	-
Parallel	?	?	-	-	-	-	-	-	-	-	-
Equiv Meters			24,534	7,344	1,614	414	-	-	-	-	33,906
Equiv Services			24,253	3,497	584	133	-	-	-	-	28,468

Act. No.	Account	Utility Depreciation	Staff Adjust.	Net Cost	Base Cost	Extra Capacity		Customer Costs			Fire Service	Alloc. Code
						Max Day	Max Hour	Billing	Meter	Services		
		CLH 1.01B-R2										
	INTANGIBLE PLANT	0										
301	Organization	0	0	0	0							1
302	Franchises	0	0	0	0							1
339	Miscellaneous	0	0	0	0							1
	SOURCE OF SUPPLY PLANT	0										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	13
305	Collecting reservoirs	0	0	0	0							1
306	Intakes	0	0	0	0	0	0					2
307	Wells	0	0	0	0	0	0					2
308	Infiltration Galleries	0	0	0	0	0	0					2
309	Supply mains	0	0	0	0	0	0					2
339	Other plant	0	0	0	0	0	0					2
	PUMPING PLANT	0										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	13
310	Power Generation Equip.	0	0	0	0	0	0					12
310	Other power production	0	0	0	0	0	0					12
311	Steam pumping	0	0	0	0	0	0					12
311	Electrical Pumping	0	0	0	0	0	0					12
311	Diesel Pumping	0	0	0	0	0	0					12
339	Other Plant & Misc. Equip.	0	0	0	0	0	0					12
	WATER TREATMENT PLANT	2,954										
302	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	2,954	0	2,954	1,024	1,930	0	0	0	0	0	13
320	Water treatment	0	0	0	0	0						2
339	Other Plant & Misc. Equip.	0	0	0	0	0						2
	TRANSMISSION/DISTRIBUTION	184,870										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	13
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	13
330	Dist. reservoirs and standpipes	0	0	0								4
331	Mains	75,920	0	75,920	18,782	35,404	21,734					12
333	Services	79,442	0	79,442						79,442		7
334	Meters	6,297	0	6,297					6,297			6
334	Meter installations	130	0	130					130			6
335	Hydrants	23,081	0	23,081							23,081	8
336	Backflow Prevention Devices	0	0	0							0	7
339	Other Plant & Misc. Equip.	0	0	0	0	0	0	0	0	0	0	13
	GENERAL PLANT	3,766										
303	Land and land rights	0	0	0	0	0	0	0	0	0	0	9
304	Structures and improvements	0	0	0	0	0	0	0	0	0	0	9
340	Office furniture	1,672	0	1,672	176	332	193	0	57	707	205	9
341	Transportation	1,861	0	1,861	196	370	215	0	64	787	229	9
342	Stores	233	0	233	25	46	27	0	8	99	29	9
343	Tools etc	0	0	0	0	0	0	0	0	0	0	9
344	Laboratory	0	0	0	0	0	0	0	0	0	0	9
345	Power operated	0	0	0	0	0	0	0	0	0	0	9
346	Communications	0	0	0	0	0	0	0	0	0	0	9
347	Miscellaneous	0	0	0	0	0	0	0	0	0	0	9
348	Other Tangible Plant	0	0	0	0	0	0	0	0	0	0	9
399	RECONCILIATION	0	0	0	0	0	0	0	0	0	0	9
	TOTAL DEPRECIATION	191,590	0	191,590	20,203	38,082	22,170	0	6,556	81,035	23,544	
	Allocation Code 9 Calculation	Cross check =		191,590	10.55%	19.88%	11.57%	0.00%	3.42%	42.30%	12.29%	100.00%