

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

<b>CENTRAL ILLINOIS LIGHT COMPANY</b>	)	
<b>d/b/a AmerenCILCO</b>	)	
	)	<b>Docket No. 09-0306</b>
<b>CENTRAL ILLINOIS PUBLIC SERVICE</b>	)	
<b>COMPANY d/b/a AmerenCIPS</b>	)	
	)	<b>Docket No. 09-0307</b>
<b>ILLINOIS POWER COMPANY d/b/a</b>	)	
<b>AmerenIP</b>	)	
	)	<b>Docket No. 09-0308</b>
<b>Proposed general increase in rates for</b>	)	
<b>delivery service. (Tariffs filed June</b>	)	
<b>5, 2009)</b>	)	

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**REBUTTAL TESTIMONY OF STEVEN A. FENRICK  
ON BEHALF OF THE CITIZENS UTILITY BOARD  
AND THE PEOPLE OF THE STATE OF ILLINOIS**

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**Corrected CUB-AG EXHIBIT 3.0**

**November 20, 2009  
Corrected on November 24, 2009**

1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Steven A. Fenrick. My business address is 1532 W. Broadway, Suite 100,  
4 Madison, Wisconsin 53713.

5  
6 **Q. By whom are you employed?**

7 A. I am an Economist employed by Power System Engineering, Inc.  
8

9 **Q. Are you the same Steven A. Fenrick who previously submitted Direct Testimony in**  
10 **this proceeding?**

11 A. Yes.  
12

13 **Q. On behalf of which parties are you presenting this testimony?**

14 A. I am submitting this testimony on behalf of the Illinois Citizens Utility Board ("CUB")  
15 and the People of the State of Illinois by Attorney General, Lisa Madigan ("AG").  
16

17 **II. PURPOSE OF TESTIMONY**

18 **Q. What is the purpose of your testimony?**

19 A. The purpose of my testimony is to respond to the Rebuttal Testimony of the Ameren  
20 Illinois Utilities ("AIU" or the "Companies") witnesses Mr. Ronald J. Amen and Dr.  
21 David W. Sosa.  
22

23 **III. RESPONSE TO AIU WITNESS AMEN**

24 **Q. Please summarize your Rebuttal Testimony in response to Mr. Ronald J. Amen.**

25 A. In Mr. Amen’s Rebuttal Testimony, lines 27 and 28, he states that his benchmarking  
26 analysis and the analysis I put forth in my Direct Testimony, CUB-AG Ex. 1.0 and 1.2,  
27 are not comparable. While I agree they are not comparable in relation to the degree of  
28 accuracy, as I believe my analysis presents a much more accurate depiction of cost levels,  
29 I disagree that they are not comparable in what is being measured. Both his and my  
30 analyses examine the AIU historical costs relative to historical sampled data in order to  
31 provide evidence of AIU cost performance. We disagree on what methodology is most  
32 appropriate in comparing AIU historical costs to other electric utilities. My contention is  
33 that utilities significantly differ in the degree of cost challenges they encounter which  
34 depend on circumstances outside of their own control. I maintain that these challenges  
35 should be explicitly accounted for through regression analysis. Mr. Amen states in lines  
36 135-137 of his Rebuttal Testimony “[e]very energy company has characteristics which  
37 are unique to that company. Through the use of relevant parameters, peer groups can be  
38 established which consist of other companies with similar characteristics.” The  
39 econometric method explicitly calculates these parameters, whereas the peer group  
40 approach depends upon the choosing of a peer group that is largely similar to the studied  
41 utility. The peer group method is at the mercy of the researcher choosing a peer group  
42 that accurately reflects the “relevant parameters;” only if the peer group accomplishes  
43 this task should the analysis be considered relevant. As I will discuss below, Mr. Amen’s  
44 six operations and maintenance (“O&M”) peer groups fail this relevancy test.

45  
46 **Q. Does accuracy in the benchmarking analysis really matter?**

47 A. Yes. Both Mr. Amen and Dr. Sosa seem to advocate for the peer group benchmarking  
48 approach because it has a higher degree of transparency. Yet, we are talking about  
49 expenses in the ballpark of \$150 million in O&M operating inefficiencies. These are not  
50 one-time expenses; they are annual amounts that Illinois ratepayers will be compelled to  
51 pay year after year. The stakes are high, thus I believe it would be a disservice to the  
52 ratepayers of Illinois to keep the analysis as simple as possible, especially to the point of  
53 sacrificing accuracy. It would certainly be inadvisable to build a power plant on such  
54 simple analysis, particularly when more in-depth analyses paint a far different picture. In  
55 the same way, it is disingenuous to suggest AIU is “effectively managing their total  
56 O&M expense levels,” as Mr. Amen does (line 48 of is Rebuttal Testimony) based on the  
57 peer group benchmarking analysis he has put forth.

58  
59 **Q. What disagreements do you have regarding Mr. Amen’s six O&M peer groups?**

60 A. The only exhibit that compared electric O&M cost per customer is found in Ameren  
61 Exhibit 32.1. In this exhibit Mr. Amen included *all* utilities with FERC Form 1 data.  
62 The sample is stated to be 145 utilities. This group in no way reflects the relevant  
63 parameters which reflect AIU’s operating circumstances, despite Mr. Amen’s claim that  
64 “peer groups can be established which consist of other companies with similar  
65 characteristics.” He includes utilities from Alaska (e.g., Chugach Electric) to Hawaii  
66 (e.g., Hawaiian Electric) to Illinois (Mt. Carmel Public Utility). Mr. Amen includes  
67 vertically integrated utilities (e.g., Union Electric, Arizona Public Service) and includes  
68 delivery only electric utilities (e.g., Kingsport Power). There are combination utilities  
69 included (e.g., Rochester Gas & Electric), there are electric-only utilities (e.g., Alaska

Electric Light & Power). There are very large utilities (e.g., Southern California Edison) and relatively small utilities (e.g., Northwestern Wisconsin Electric Company), there are more densely forested utilities (e.g., Mississippi Power) and vastly less forested utilities (e.g., AIU). Given this disparity in operating conditions, Mr. Amen's peer grouping fails to adjust for the relevant parameters of AIU's operating conditions. His other five peer groups similarly fail to adequately account for those factors that influence utility costs.

**Q. What other disagreements do you have regarding Mr. Amen's O&M benchmarking analysis?**

A. Mr. Amen's analysis had the potential to show where AIU ranked in comparison to the entire electric industry. This would not have revealed cost performance but at least would have presented an analysis of AIU's cost per customer position among the industry. However, the analysis does not even accomplish this feat. Mr. Amen includes administrative and general ("A&G") expenses without making any adjustments for the fact that AIU is not a vertically integrated utility. By including a large number of vertically integrated utilities in his sample, Mr. Amen is biasing the results in favor of utilities that are not vertically integrated. The A&G functions of a utility serve the production processes of a vertically integrated utility, if they exist. Those utilities engaging in electricity production are putting forth more A&G "effort" than their delivery-only counterparts, yet Mr. Amen's peer groups make no correction for this fact. Yet despite the advantages offered to AIU in its own analysis, they still are not able to reach the top quartile in the sample.

92 **Q. Mr. Amen makes the claim on lines 110 and 111 of his Rebuttal Testimony “[t]he**  
93 **peer group benchmarking studies which I performed are objective, straight-**  
94 **forward, verifiable, replicable and relevant to the AIUs.” Please respond to this**  
95 **statement.**

96 A. I agree with Mr. Amen that his analysis is straight-forward, verifiable, and replicable. It  
97 fails, however, in being objective and relevant in regards to AIU’s cost performance for  
98 the reasons cited above. The omission of accounting for the actual circumstances faced  
99 by AIU is contrasted by the research of someone that works in Mr. Amen’s same firm,  
100 Concentric Energy Advisors. John J. Reed submitted benchmarking testimony on behalf  
101 of Florida Power & Light earlier in 2009 in the Florida Power & Light rate proceeding,  
102 docket number 080677-EI, before the Florida Public Service Commission<sup>1</sup>. His  
103 benchmarking methodology was the peer group approach, but he included a “situational  
104 assessment” to attempt to show the cost challenges facing each sample member. On page  
105 10 of his testimony he states, “The purpose of a situational assessment is to recognize that  
106 the cost advantages or disadvantages that many utilities face are the product of  
107 circumstances beyond their control.” While I believe these cost advantages and  
108 disadvantages are best adjusted for through econometric benchmarking, Mr. Reed’s  
109 situational assessment at least acknowledges the fact that electric utilities face  
110 heterogeneous conditions.

111  
112 **Q. Did Mr. Reed say anything else of interest in his testimony in the Florida Power &**  
113 **Light rate proceeding?**

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<sup>1</sup> Attached as CUB-AG Exhibit 3.1.

114 A. Yes. Mr. Reed stated (at page 6) that benchmarking results should be incorporated into  
115 the ratemaking process, “It is consistent with both cost-based regulation and the long-  
116 standing latitude of regulators to recognize low-cost efficient service in setting an  
117 appropriate return.” I would agree that finding a means of incorporating the cost  
118 performance of a utility into the ratemaking process is a persuasive method to providing  
119 incentives for a regulated firm to operate in a manner that optimizes public welfare.

120  
121 **Q. On line 146 of his Rebuttal Testimony, Mr. Amen disagrees with your claims that no**  
122 **suitable peer group exists for AIU. Please respond.**

123 A. Mr. Amen says on lines 159-161, with regard to his own analysis, “[w]hile no one  
124 benchmarking study accounted for each of the variables cited by Mr. Fenrick, clearly the  
125 individual benchmarking studies accounted for each of the attributes which are unique to  
126 the AIUs.” Mr. Amen makes the claim that a suitable peer group exists for AIU which  
127 can account for the relevant parameters of AIU, but does not describe or show what that  
128 group might look like and what utilities it would contain. Mr. Amen even admits that “no  
129 one benchmarking study accounted for each of the variables cited by Mr. Fenrick...” He  
130 provides no analysis or description regarding this hypothetical peer group which he  
131 claims exists. If a peer group exists that simultaneously controls for all of the relevant  
132 parameters then why not present this peer group? We are left to conclude that no such  
133 peer group actually exists.

134  
135 **IV. RESPONSE TO AIU WITNESS SOSA**

136 **Q. Please summarize your Rebuttal Testimony in response to Dr. David W. Sosa.**

137 A. Dr. Sosa made several comments on my Direct Testimony regarding econometric  
138 benchmarking. As I understand his Rebuttal Testimony, his primary criticisms of my  
139 Direct Testimony can be summarized by the following list (1) model specification, (2)  
140 cost causation, (3) wage level variable treatment, (4) treatment of percent underground  
141 variable, (5) joint modeling of distribution and customer care (“D&CC”) expenses, and  
142 (6) confidence intervals. I will address each concern in turn below.

143  
144 At the end of my testimony I will offer a correction to Dr. Sosa’s claims he makes on  
145 lines 493-496 where he states “[m]oreover, the studies Mr. Fenrick references examine  
146 total costs, rather than the ‘micro’ or intermediate expenses that he has examined. These  
147 studies also do not use the flawed business condition metrics, such as ‘percent  
148 undergrounding’ based on plant in service, or ‘percent forested,’ that Mr. Fenrick uses in  
149 this case.” I believe there are multiple elements in this statement that are misleading.

150  
151 **Q. What is Dr. Sosa’s main concern regarding model specification?**

152 A. The main complaint regarding model specification appears to be that total sales were not  
153 included as an output variable versus net generation in the econometrically estimated  
154 administrative and general benchmarking model. On lines 245-248 (citations omitted),  
155 Dr. Sosa states, “Mr. Fenrick’s modeling approach for A&G expenses is also inconsistent  
156 with two econometric studies that he cites in his testimony. These studies used total sales  
157 and number of customers as output variables; neither study used net generation as an  
158 output variable.”



160 **Q. Why were total sales included as an output and not net generation in the studies you**  
161 **cited?**

162 A. The studies that Dr. Sosa is citing are the econometric benchmarking study filed by  
163 AmerenUE before the Missouri Public Service Commission, Case No. EC-2002-1, and an  
164 econometric benchmarking study filed this year by Oklahoma Gas and Electric Company,  
165 Case No. Ca-PUD200800398. Both of these studies involved vertically integrated  
166 utilities, whereby the sample was constricted to include only U.S. vertically integrated  
167 utilities. They did not contain delivery-only electric utilities.

168  
169 **Q. How is that different from the econometric study filed in your Direct Testimony?**

170 A. The sample used in my research contained both vertically integrated utilities and  
171 delivery-only utilities. Thus, more care was necessary in specifying a model that  
172 adequately controlled for the extra A&G “effort” put forth by utilities with generating  
173 facilities. This is due to the fact that some of the sampled utilities generate electricity,  
174 while others do not. If the incremental A&G effort of utilities with generation is not  
175 captured by a variable this will skew results in favor of delivery-only utilities. In  
176 samples, such as those cited by Dr. Sosa, containing only vertically integrated utilities,  
177 this correction is unnecessary.

178  
179 **Q. Could total sales be included rather than net generation?**

180 A. Yes, and Dr. Sosa claims to have done this. He states in lines 284 and 285 of his Rebuttal  
181 Testimony “[c]orrecting this flaw [omission of total sales] in his model yields results that  
182 are qualitatively similar to the results of Mr. Amen’s peer group benchmark for A&G.”

183 **Q. Is this substitution a fair analysis?**

184 A. No. It ignores the extra A&G “effort” put forth by vertically integrated utilities. Such a  
185 model certainly contains a specification error, and is biased towards utilities with no  
186 generation facilities such as AIU. It is unsurprising that such a model would yield  
187 “qualitatively similar” results to Mr. Amen’s peer group analysis containing errors  
188 previously discussed.

189  
190 **Q. Could a fair model be constructed with total sales as an output?**

191 A. Yes. However, for it to be a fair analysis an additional variable would need to be inserted  
192 that measured the percentage of generation in total sales. This would allow for the extra  
193 A&G “effort” of vertically integrated utilities to be accounted for within the model.

194  
195 **Q. Have you estimated such a model?**

196 A. Yes. I replaced the net generation variable found in the A&G model of my Direct  
197 Testimony with total sales. Additionally, I inserted a “percent generation in total sales”  
198 variable. All other included variables remained the same.

199  
200 **Q. What results did you find?**

201 A. AIU results were both qualitatively and quantitatively similar to those found using the  
202 original econometric models. Results equated to estimated 2008 test year A&G expense  
203 inefficiencies being over \$50 million, versus the \$61.8 million estimated in my Direct  
204 Testimony, when compared to an average performance standard. When compared to a  
205 top quartile performance standard, the estimated 2008 test year inefficiency levels are in

excess of \$70 million versus the \$83.9 million found in my Direct Testimony. This consistency reveals the robustness of the estimates when fair model specifications are employed.

**Q. Moving to Dr. Sosa’s criticism regarding “cost causation”, could you please respond to his claims in this area?**

A. On lines 186 and 187 of Dr. Sosa’s Rebuttal Testimony he states “[f]ailure to formulate an econometric model based on theory can result in specification errors.” His point is well-taken: economists must be careful to specify their models based on some logic and not solely based on statistical tests of significance. Such care has been taken with the econometric benchmarking model’s put forth in CUB-AG Ex. 1.0 and 1.2.

**Q. Please describe the theory behind the explanatory variables in the econometric models.**

A. The model with the most explanatory variables included is the distribution and customer care D&CC econometric benchmarking model, so I will describe the theory behind each of the included variables in the D&CC model.<sup>2</sup> This model estimated the distribution and customer care expenses of AIU for the 2005-2007 period. The explanatory variables included are: number of customers, retail volumes, wage levels, net generation, percent undergrounding, number of gas customers, percent forestation, and a trend variable.

**Q. Does the number of customers affect cost?**

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<sup>2</sup> The A&G model variables are a subset of the D&CC model variables.

228 A. Yes. In fact, Dr. Sosa responded to CUB data request 1.09 that “[i]n Dr. Sosa’s opinion,  
229 number of customers is an important driver of utility O&M costs, and possibly the most  
230 important single driver of costs.”  
231

232 **Q. Does the amount of retail volumes affect cost?**

233 A. Yes, and Dr. Sosa appears to agree. Dr. Sosa states in his Rebuttal Testimony on lines  
234 275 and 276, (citations omitted), “[t]otal sales, which is a widely accepted measure of  
235 output, captures the ‘quantity of work performed by utilities.’”  
236

237 **Q. Does the wage level of the utility affect cost?**

238 A. Yes. A basic economics concept is that cost is equal to input price multiplied by input  
239 quantity. This variable captures the labor price differences between utilities. Beyond  
240 economic theory, it is logical that if a utility must pay higher wages to secure employees  
241 then its costs should be expected to be higher than a utility operating in a lower wage  
242 area, all else being equal.  
243

244 **Q. Does the net generation of the utility affect cost?**

245 A. Yes. AIU acknowledges as much in response to CUB 1.12: “The factors that Mr. Amen  
246 screened for in constructing his alternative peer groups, such as geographic location,  
247 vertical integration, gas distribution activities, and size of operations, may affect observed  
248 O&M expenses.” The net generation variable presented in the D&CC econometric  
249 benchmarking model I presented adjusts for vertical integration.  
250

251 **Q. Does the amount of undergrounding of the utility affect cost?**

252 A. Yes. Dr. Sosa appears to agree. He states on lines 364-366 of his Rebuttal Testimony  
253 that “[u]nderground circuits are less likely to suffer disruption and require repair,  
254 resulting, all else equal, in lower distribution O&M expenses.”  
255

256 **Q. Does the number of gas customers affect cost?**

257 A. Yes. The Companies state in response to CUB data request 1.12 that “[t]he factors that  
258 Mr. Amen screened for in constructing his alternative peer groups, such as geographic  
259 location, vertical integration, gas distribution activities, and size of operations, may affect  
260 observed O&M expenses.” The number of gas customer variable presented in the D&CC  
261 econometric benchmarking model I presented adjusts for gas distribution activities.  
262

263 **Q. Does the percent of service territory that is forested affect cost?**

264 A. Yes. It will cost significantly more for a utility crew to maintain the right-of-way in a  
265 moderately forested area relative to an area with little to light tree density. If an overhead  
266 line has no trees the costs will be minimal, perhaps a simple drive-by to determine no tree  
267 trimming work is necessary versus substantial necessary maintenance if a line mile is  
268 heavily forested.  
269

270 **Q. Does the trend variable affect cost?**

271 A. Yes. This is a less obvious variable than the other explanatory variables. Recall that in  
272 the D&CC model the variable we are attempting to explain is “real” cost. That is, actual

cost divided by the U.S. GDPPI<sup>3</sup>. The data sample includes industry data for 115 utilities from 1994 to 2007. The theory behind the trend variable is that it is accounting for the differences in the trend in industry input prices compared to the trend in the U.S. GDPPI, as well as, the technological advances made in the industry during that period.

**Q. Are the explanatory variables in your models cost causative?**

A. Yes. Each variable is founded in solid economic logic and theory. Sometimes economists can make things more complicated than they really are. The logical conceptual underpinnings, however, are often not so complex. For example, it is not complicated to see why the level of vegetation in a utility's service territory may impact O&M costs. The econometric models presented in my Direct Testimony take these cost causative variables and examine their estimated cost impacts.

**Q. The next criticism by Dr. Sosa of your research has to do with your treatment of the wage level. Could you please respond to this criticism?**

A. The D&CC and A&G models found in CUB-AG Ex. 1.2 contained the wage level as an explanatory variable. This variable was based on May 2008 Bureau of Labor Statistics ("BLS") data. This variable corrected for the differences in labor prices depending on the different locations of each sampled utility's service territory. While it makes no difference in the estimation, it may allow for a broader understanding of the variable to realize it was mean-scaled. That is, if a utility had a wage level that was 10% above the industry average the wage variable equaled 1.10. Alternatively, if a utility faced a wage

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<sup>3</sup> United States Gross Domestic Product Price Index ("U.S. GDPPI").

level that was 5% below the industry mean, its value would be 0.95. It is logical to adjust for the differences in labor prices from utility to utility.

Dr. Sosa implies this variable should have changed from year to year. On lines 294-297 in his Rebuttal Testimony he states “Mr. Fenrick’s ‘wage level’ variable is not contemporaneous with the rest of his data set. Mr. Fenrick’s study period is 1994 to 2007. For all 14 years of this period, he uses a single May 2008 wage level for each company for every year included in his analysis.” Dr. Sosa is correct in his description, but this is not a shortcoming of the model. This variable is measuring the wage *level* encountered by each utility relative to the sample. It is not attempting to measure inflation, as O&M cost is already being divided by the U.S. GDPPI and the trend variable is adjusting for the differences in industry input prices and the GDPPI.

**Q. Will the trend in wage levels vary across regions of the country?**

A. The variation is negligible. According to BLS data on regional differences in the trends in employment cost indexes (“ECIs”) for U.S. private industry, from the fourth quarter of 2001 to the fourth quarter of 2007 the northeast region’s ECI increased by 3.0%, the Midwest increased by 2.9%, the south increased by 2.7%, and the west increased by 2.8%.<sup>4</sup> These differences would have a minimal impact on the estimation results.

**Q. The next criticism by Dr. Sosa of your research has to do with your treatment of the percent undergrounding variable, could you please respond to this criticism?**

A. The variable found in the D&CC and A&G econometric benchmarking models is based on the percentage of underground gross plant in service to total distribution plant in

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<sup>4</sup> See BLS, “Employment Cost Index” Series ID: CIU2020000000210I.

318 service. Dr. Sosa questioned this approach by stating in lines 320-324 of his Rebuttal  
319 Testimony (citations omitted) “[h]owever, in a previous econometric benchmarking  
320 study, Mr. Fenrick relied on a very different measure of underground distribution, which  
321 was based on circuit miles of underground distribution, not plant in service. Mr. Fenrick  
322 has not explained why he changed his approach to calculating a measure of underground  
323 lines for this case.” Dr. Sosa is correct that in work previously performed for the Ontario  
324 Energy Board the percent underground variable was based on the percentage of  
325 underground kilometers of line in total distribution kilometers of line. The difference is  
326 that this data was publicly available for Ontario power distributors and it is not publicly  
327 available for U.S. investor-owned utilities. Specific plant in service data is not publicly  
328 available in Ontario, making the approach used in Ontario the only plausible solution to  
329 modeling the impact of underground lines on O&M expenses.

330  
331 **Q. Have you used anything other than a plant in service variable for modeling**  
332 **undergrounding line in regards to benchmarking U.S. utilities?**

333 A. No. In all previous benchmarking work I have been involved in pertaining to U.S.  
334 utilities, the underground variable has been based on publicly available plant in service  
335 data. For example, AmerenUE’s filing of econometric benchmarking in a Missouri rate  
336 case (EC-2002-1) included a percent overhead variable based on plant in service values.

337  
338 **Q. The next criticism of Dr. Sosa is the joint modeling of distribution and customer**  
339 **care expenses. Could you please respond to this criticism?**



340 A. In my experience, joint modeling of expenses is a common practice. For example, Mr.  
341 Amen presented O&M per customer benchmarking results in his Rebuttal Testimony in  
342 this case that jointly modeled transmission, distribution, customer care, and  
343 administrative and general expenses. The AmerenUE study cited above jointly modeled  
344 production, transmission, distribution, customer care, and administrative and general  
345 expenses. I cannot recall any benchmarking work with which I have been involved  
346 where distribution and customer care were not jointly modeled.

347  
348 This is not to say these two categories could not be broken out in order to better pinpoint  
349 the causes for the identified inefficiencies. However, I did not attempt to identify the  
350 specific causes of AIU's inefficiency. Rather, the research presented in my Direct  
351 Testimony presents evidence of the existence of inefficiencies.

352  
353 **Q. The last item of criticism you have identified from Dr. Sosa is dealing with the**  
354 **confidence intervals regarding your benchmarking performance scores. Could you**  
355 **please respond to this criticism?**

356 A. The econometric benchmarking method allows for confidence interval construction to  
357 provide an indication of the statistical reliability of the estimated benchmark result. This  
358 is an added strength over the peer group approach which does not even permit such an  
359 analysis. Dr. Sosa states on lines 449-452 in his Rebuttal Testimony: "Given that Mr.  
360 Fenrick's projected D&CC expenses are statistically indistinguishable from actual D&CC  
361 expenses, his conclusion that the AIUs are inefficient is unsupported and therefore  
362 unreliable." Dr. Sosa makes the following statement in regards to Mr. Amen's peer

group benchmarking approach on lines 53-55: “The peer group benchmarking approach used by Mr. Amen is transparent, reliable, and an appropriate method to compare the AIUs’ levels of operation and maintenance (‘O&M’) expense to other utilities.” However, neither Mr. Amen nor Dr. Sosa present any basis by which Mr. Amen’s peer group rankings are statistically distinguishable from the peer group average. It appears Dr. Sosa is using a double standard in evaluating Mr. Amen’s results and the econometric benchmarking results found in my Direct Testimony.

**Q. Are the econometric benchmarking results statistically significant?**

A. Yes. Dr. Sosa put forth Ameren Exhibit 46.1, which is titled “Mr. Fenrick Has Failed to Prove that the AIU’s Costs Are Higher than Average.” I have two disagreements with this exhibit.

**Q. What is your first disagreement regarding Ameren Exhibit 46.1?**

The first disagreement is that a 95% confidence interval is an arbitrary one, certainly one that Mr. Amen’s peer group approach could not surpass. Such a confidence interval implies that only if AIU’s O&M costs are above the upper bound of the confidence interval we can conclude they operate inefficiently. There is only a 2.5% chance that their O&M costs could be beyond this value if they were, in fact, an average performing utility. This is an unreasonably high threshold. A possible reasonable threshold might be plus or minus one standard deviation.<sup>5</sup>

**Q. What is your second disagreement regarding Ameren Exhibit 46.1?**

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<sup>5</sup> This would imply a confidence interval of about 68% for a normal distribution.

386 My second disagreement of Ameren Exhibit 46.1 is the isolation of each year in  
387 presenting confidence intervals. This implies that we can only make conclusions if each  
388 year is statistically significant at the 95% confidence level. This ignores the fact that  
389 AIU's O&M expenses are consistently above the expected level in each year. Using a  
390 baseball analogy, if I knew nothing about Albert Pujols<sup>6</sup> and I saw him play just one  
391 game in which he had two hits, with a home run, based solely on information from this  
392 one game could I confidently say he is one of the best first basemen in the major leagues?  
393 No. However, if I attended the last three years of Cardinals baseball games and saw Mr.  
394 Pujols perform at a high-level year after year, even a lifelong Cubs fan could confidently  
395 say he is one of the best first basemen in the game today.

396  
397 This example shows the need to account for all of the information available to us. Dr.  
398 Sosa's exhibit limits our focus to looking at just one year in isolation. However, if we  
399 look at AIU's consistent performance over the last three years we can make more  
400 confident statements regarding their level of cost performance.

401  
402 The tables below show the confidence intervals when all three years (2005-2007) are  
403 taken into account and presents different levels of confidence and performance standards.  
404 Notice that every AIU observation for both the D&CC model and A&G model is beyond  
405 a plus/minus one statistical deviation confidence interval. Three of the six AIU  
406 observations are also beyond a 95% confidence interval. The three that are not, border  
407 the 95% threshold. These tables show that if we account for more information than Dr.

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<sup>6</sup> Albert Pujols is the first basemen for the St. Louis Cardinals major league baseball team.

408 Sosa accounted for in Ameren Exhibit 46.1, we are able to make more definitive claims  
 409 regarding AIU's cost performance.

### D&CC Econometric Model Confidence Intervals (millions of \$)

	95% Confidence Interval			Plus/Minus One Standard Deviation		
	2005-2007 Average			2005-2007 Average		
	Lower Bound	Actual Costs	Upper Bound	Lower Bound	Actual Costs	Upper Bound
AmerenCILCO	\$26.2	<b>\$34.1</b>	\$35.3	\$28.2	<b>\$34.1</b>	\$32.8
AmerenIP	\$81.0	<b>\$106.4</b>	\$109.1	\$87.1	<b>\$106.4</b>	\$101.4
AmerenCIPS	\$51.2	<b>\$72.6</b>	\$68.9	\$55.1	<b>\$72.6</b>	\$64.1

### A&G Econometric Model Confidence Intervals (millions of \$)

	95% Confidence Interval			Plus/Minus One Standard Deviation		
	2005-2007 Average			2005-2007 Average		
	Lower Bound	Actual Costs	Upper Bound	Lower Bound	Actual Costs	Upper Bound
AmerenCILCO	\$12.4	<b>\$23.8</b>	\$19.6	\$13.9	<b>\$23.8</b>	\$17.5
AmerenIP	\$35.8	<b>\$59.0</b>	\$56.6	\$40.0	<b>\$59.0</b>	\$50.6
AmerenCIPS	\$20.5	<b>\$30.5</b>	\$32.5	\$22.9	<b>\$30.5</b>	\$29.0

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412 Q. You previously referenced Dr. Sosa's claims on lines 493-496 of his Rebuttal  
 413 Testimony where he states "[m]oreover, the studies Mr. Fenrick references examine  
 414 total costs, rather than the 'micro' or intermediate expenses that he has examined.  
 415 These studies also do not use the flawed business condition metrics, such as 'percent  
 416 undergrounding' based on plant in service, or 'percent forested,' that Mr. Fenrick  
 417 uses in this case." Would you like to respond to this statement?

418 A. Yes. Dr. Sosa is referencing three benchmarking reports that I cited in CUB-AG Ex. 1.0.

419 These benchmarking reports are the Florida Power & Light (FP&L) report, the Oklahoma

Gas & Electric (OG&E) report, and the AmerenUE report. The FP&L report examined these “micro” or intermediate expenses. In Exhibit JJR-6 pages 15-25, Mr. Reed shows benchmarking results for non-fuel production O&M, transmission O&M, distribution O&M, A&G O&M, and customer O&M.

Dr. Sosa further makes the claim that “[t]hese studies also do not use the flawed business condition metrics, such as ‘percent undergrounding’ based on plant in service, or ‘percent forested,’ that Mr. Fenrick uses in this case.” In the AmerenUE report<sup>7</sup> on Table 2 there is a variable in the econometric model labeled as “% Overhead in total T&D plant.” This variable was constructed based on plant level data.

**Q. Do you agree with Dr. Sosa’s conclusion that the econometric benchmarking results presented in CUB-AG Ex. 1.0 and 1.2 are “unreliable”?**

A. No. The econometric benchmarking results are the most appropriate measurements available to measure the cost performance of AIU in this case. The included explanatory variables conform to both theory and logic and are statistically significant. There are no specification errors or cost causality issues, and variables have been calculated consistently across utilities and across benchmarking studies. The econometric benchmarking analysis is a fair and reliable measure of the cost performance of AIU. This is contrasted by the peer groups presented by Mr. Amen which have obvious flaws biasing results in the direction of AIU.

**Q. Does this conclude your testimony?**

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<sup>7</sup> Case number EC-2002-1.

443 A. Yes.