

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

Illinois Commerce Commission	)	
On Its Own Motion	)	
	)	
vs.	)	Docket No. 14-0384
Commonwealth Edison Company	)	
	)	
Investigation of Commonwealth Edison	)	
Company's cost of service for low-use	)	
customers in each residential class	)	

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**REBUTTAL TESTIMONY OF EDWARD C. BODMER  
ON BEHALF OF THE CITIZENS UTILITY BOARD**

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**CUB EXHIBIT 2.0**

**APRIL 7, 2015**

1   **QUALIFICATIONS**

2   **Q.    What is your name and on whose behalf are you testifying?**

3   A.    My name is Edward C. Bodmer. I am testifying on behalf of the Citizens' Utility Board  
4       ("CUB").

5   **Q.    Have you previously testified in this case and presented your qualifications?**

6   A.    Yes. My qualifications are included in my direct testimony.  
7

8   **INTRODUCTION**

9   **Q.    Do you have a general comment on the Commonwealth Edison Company**  
10       **("ComEd") rebuttal testimony?**

11 A.    Most of the ComEd rebuttal testimony involves defense of a rate design the Company  
12       calls "straight fixed variable," or "SFV" and does not address measurement of the cost of  
13       service for low-use consumers. Given that SFV has been debated in direct, rebuttal and  
14       surrebuttal testimony in at least three cases now, the process feels to me like the film  
15       "Groundhog Day." ComEd continues to defend SFV rate design, but refuses to consider  
16       the actual costs of serving its low use consumers. The "impact of SFV" (referred to in  
17       the Commission order opening this case) can only be meaningfully assessed by  
18       determining and comparing actual costs of service for low use consumers to SFV rates.  
19       That is precisely what ComEd refuses (for the second time) to provide -- "evidence  
20       regarding cost of service for low-use customers," as the Commission described it in its  
21       order.

22               In response to ComEd's continual proposal for adoption of an SFV rate, I have  
23       demonstrated that demand is closely correlated with consumer use in this case and in

24 other cases (see CUB Exhibit 1.02); I have commented that ComEd's worry about loss of  
25 load from solar power (Com Ed Exhibit 4.0; Page 18; LL 356-359) should not fall on the  
26 backs of small low income/low use consumers many times; I and others have  
27 demonstrated the obvious point that SFV is not cost justified on at least five occasions; I  
28 have noted that the SFV is not necessary for maintenance of ComEd's financial  
29 condition; I and many other experts have commented that ComEd should not provide dis-  
30 incentives to conservation; and, finally, the record here demonstrates there has never been  
31 a question that the SFV impacts low-use consumers in an inequitable and non-cost  
32 justified manner. Going around and around anymore at this point is not only a waste of  
33 time, it is becoming really painful.

34  
35 **ELIMINATION OF SFV DOES NOT RESULT IN EQUITABLE RATES FOR LOW**  
36 **INCOME/LOW USE CONSUMERS**

37 **Q. Is ComEd's SFV proposal the proper focus of proceeding?**

38 A. No. In persistently trying to make this case about restoration or elimination of SFV,  
39 ComEd ignores the Commission's second attempt to get ComEd to respect its directive to  
40 determine the distinctive costs of serving low-use customers. In fact, the problems with  
41 ComEd's rate design in terms of low-use consumers would not be fixed if the SFV never  
42 saw the light of day again (as it certainly should not). Many interested parties would like  
43 SFV to be restored or to be eliminated, for different reasons ranging from energy  
44 conservation to incentives for roof-top solar power to utility revenue stability. My focus  
45 in this testimony is on low use/low income consumers as mandated by the Commission's  
46 implementation order. In this regard I will be blunt. No other party has made the

47 inequitable rates those customers continue to pay the focus of their participation in this  
48 case.

49 The primary theme of my direct testimony was that even without SFV, ComEd  
50 has a highly regressive rate structure that is not equitable to low use/low income  
51 consumers and is not consistent with the rate structures of utility companies that serve  
52 other major metropolitan areas. ComEd's rate structure with SFV would be less  
53 consistent with rate design policies that I have observed, and highly regressive in nature.

54 **Q. In what way is SFV regressive?**

55 A. This regressive rate structure with SFV is readily apparent, either from examining the  
56 revenue per kWh for different levels of usage or, more importantly, from comparing  
57 ComEd's rate structure with that of other companies. Therefore the simplest starting  
58 point for addressing the cost of service to low users is to ask why ComEd's rates are so  
59 regressive and so out of line with those of other companies. ComEd has never answered  
60 this basic question. (ComEd's comparison with anomalous municipally-owned utilities  
61 that have a \$50 customer charge, while ignoring all others, does not count).

62 **Q. Is the notion that the Commission must go further than just the simple elimination**  
63 **of SFV consistent with your testimony in the 2013 rate design investigation ("RDI")**  
64 **case?**

65 A. Yes. In the 2013 RDI case I made a rather complex proposal to implement staggered  
66 customer charges that vary with usage. This proposal was made because, with ComEd's  
67 highly regressive rate design and its cost of service measurement approaches, elimination  
68 of the SFV was not sufficient to render rates equitable to low users. With hindsight, the  
69 proposal was too complex and obscured the important point that elimination of SFV is

not sufficient to make equitable rates for low users. Whether the Commission will acknowledge this need for more than mere tinkering, there remains a key policy question surrounding ComEd's rate design for low users.

#### **RESPONSE TO CRITIQUES MADE BY MR. TENORIO**

**Q. What part of Mr. Tenorio's rebuttal testimony is the primary focus of your discussion?**

A. I respond to comments made by Mr. Tenorio which imply that cost of service for low use/low income consumers cannot be measured by the company. The notion that ComEd does not have the capability to measure costs for low users (ComEd Ex. 5.0; p. 24; LL 419-427) raises an important philosophical question for the Commission (and perhaps one regarding the prudence of certain information technology costs). First, with respect to rate design policy, the Commission has authority to make policy decisions, but ComEd had the data to measure costs. By being in control of the data and insisting that costs cannot be measured, ComEd is over-riding the Commission's authority to make rate design policy. This manner in which ComEd uses its control of cost data to take control of policy should be an important issue for all parties, whether or not they care about low use/low income consumers. Second, if the old information technology systems (under which ComEd did measure the costs I identify in my testimony) were, or are being, replaced by new systems that cannot quantify fundamental elements of ComEd's cost of service, are the purchase and maintenance costs of the new system prudent expenditures?

**Q. Clarify the distinction between measuring cost of service using relative contribution to peak demand – demand patterns – as compared to measuring cost of service.**

93 A. After struggling to get load research data in the 2013 RDI case, I demonstrated that low  
94 users had more efficient demand patterns (coincident load factors) than other consumers.  
95 To compute cost of service for low use consumers, ComEd applied the same type of load  
96 analysis to aggregate costs, as it could not use its mantra that “this is not possible”  
97 anymore. However in terms of measuring customer costs and distribution costs for low  
98 use/low income consumers, ComEd did nothing at all in this case. The distinctive load  
99 factor of low use consumers is an element of cost of service that ComEd could no longer  
100 pretend could not be measured, but it is only one of several elements with significant  
101 impact. ComEd ignores the others, again claiming that measurement is not possible

102 To demonstrate how ComEd’s study does not measure the costs of providing low  
103 users with service, consider a simple and stylized example of a rental car company.  
104 Assume that the company rents out two cars, a new Ferrari and an old Honda Fit. In  
105 coming up with rental rates, the company could define high users and low users by how  
106 much the cars are driven, and attempt to create prices that correspond to the demand  
107 characteristics of the cars. This would involve putting the costs of the two cars together  
108 and dividing the total cost by some sort of mileage statistic. Of course, it would be crazy  
109 not to differentiate prices by the actual costs of the renting low-cost cars and renting  
110 expensive luxury cars. But this is what ComEd wants the Commission to believe is  
111 appropriate with respect to determining the costs and prices for low use consumers.  
112 ComEd continues to propose setting rates by concentrating only on demand -- without  
113 reflecting the distinctive costs of service to low use (Honda-type) consumers or high use  
114 (luxury-type) consumers. The costs of incurred by consumers that have different density,  
115 age and undergrounding -- distinctive costs ComEd does not reflect in its rates -- are

dramatic. These cost differences are strongly correlated with usage and are ignored by ComEd.

**Q. To support ComEd’s claim that the costs you identify cannot be measured, Mr. Tenorio states that ComEd would need to “identify and assign ages and configurations of miles of conductors and poles and numerous distribution facilities located in an 11,000 square mile area for over 3.4 million residential customers...” (ComEd Ex. 5.0; page 24; LL 420-423) Is all of this customer specific cost measurement really necessary?**

**A.** Of course not. ComEd formerly considered density in its cost studies by surveying its engineers (a fact that is acknowledged by Mr. Tenorio). In other parts of ComEd’s cost of service study the company uses the same sampling techniques that could be used to measure the cost factors ComEd prefers to ignore (for example for measuring secondary line costs). To assert that a cost of service study requires measuring every single consumer or throwing up your hands and measuring nothing is simply disingenuous. In prior testimony I have begged ComEd to use the expensive customer information systems that have been paid for by ratepayers to take samples of consumers (for example, measuring distribution costs in Englewood and Lake Forest). ComEd could measure the cost in low use, high use, low income and high income regions as a starting point. If ComEd had taken the Commission directive seriously it would have made such a serious effort to measure the true customer costs for low use customers.

By refusing to use its data to measure costs, the bottom line is that ComEd has taken it upon itself to make Commission policy. A reasonable response to this refusal to measure costs as directed is to place a cap on ComEd’s very high customer charge.

139 **Q. Mr. Tenorio’s first critique of your suggestion that ComEd should actually measure**  
140 **low use cost (rather than only applying demand differences to aggregate cost) is that**  
141 **you have made this suggestion before. Does that matter?**

142 A. No. After describing my position in earlier cases, Mr. Tenorio asked himself the question  
143 “Did the Commission direct ComEd to further segment its embedded costs as Mr.  
144 Bodmer suggested?” Mr. Tenorio answers his question with the word “No.” This is  
145 despite the Commission’s clear directive for ComEd to provide “evidence regarding cost  
146 of service for low-use customers,” which would appear to direct ComEd to actually  
147 measure the cost of service for low-use customers in a different way than ComEd had  
148 prior. It appears that without defining a sampling study in exhaustive detail for ComEd,  
149 the Commission cannot gain the cost information it requested.

150 Measuring cost of service for low use consumers means not simply using demand  
151 profiles. ComEd’s testimony simply does not reflect the facts. I have given testimony on  
152 this issue before beginning in 2010, and beginning in 2010 the Commission has asked  
153 ComEd to consider the effects of SFV on low users. In ComEd’s 2013 case, after I  
154 presented unrebutted testimony and analysis about density, age and undergrounding, the  
155 Commission ruled that “ComEd failed to provide cost of service data for low use  
156 customers.” The Commission’s statements are clear with respect to measuring cost of  
157 low users.

158 **Q. Mr. Tenorio puts forth a quote from a 2008 rate case regarding “how primary or**  
159 **secondary voltage customers use primary distribution facilities in 4 kV single phase**  
160 **or three-phase configuration.” What is your response to this?**



161 A. ComEd's quote prompts one to wonder if this is really the best argument they can make.  
162 The current case is about responding to a Commission directive that states "The  
163 Commission further orders ComEd to conduct and provide a [cost of service study] with  
164 a distinct low-use subclass of each residential delivery class." To respond to this  
165 directive by pulling out language from an old order where the Commission declined to  
166 order ComEd to identify and separate the physical facilities serving specific customers  
167 into primary/secondary and phase configuration categories simply makes you scratch  
168 your head. The cost determination ComEd was directed to perform is nothing like the  
169 novel process rejected in the 2008 case. It is exactly like the cost of service  
170 determinations ComEd used to make when it considered a wider range of cost factors,  
171 including density, undergrounding, and plant age.

172 **Q. Mr. Tenorio states that "No evidence has been provided to show that the majority of**  
173 **low-use customers reside in areas with density levels that are different from the**  
174 **areas in which customers that use greater quantities of electricity reside." (ComEd**  
175 **Ex. 5.0; pp 23-24; LL 403-405). What is your comment on this?**

176 A. I wanted to keep my testimony short and not respond to each comment made by ComEd  
177 witnesses, but statements like this in Mr. Tenorio's testimony has made this impossible. I  
178 spent a lot of time, issued many data requests, made many spreadsheets and wrote a lot of  
179 pages of testimony demonstrating the undergrounding, old equipment and most of all  
180 density are correlated with low use regions of ComEd in the 2013 RDI case which led  
181 directly to this proceeding. I am not going to repeat the analysis here, because my earlier  
182 testimony in Docket 13-0387 – City/Cub Exhibit 1.0, pages 42-46 and City/Cub Exhibit  
183 2.0, pages 14-19 and pages 38-39 can be reviewed. Presumably, as Mr. Tenorio offered

critiques to my testimony in that 2013 case, he did read it. For the convenience of the Commission and ComEd witnesses, I have attached that the referenced material as CUB Ex. 2.1 to this testimony.

**Q. Mr. Tenorio also testifies (ComEd Ex. 5.0; p. 24; LL 406-408) that “Moreover, there is no sound basis to assume that low-use customers use distribution facilities that differ in age, appearance, and configuration from the distribution facilities used by customers using greater quantities of electricity.” Is it necessary for you also to comment on this?**

**A.** Yes. To state that I have not examined the relationship between age, appearance and configuration, and usage is another big insult. I have described the data analyses I have performed and presented, which establish the relationship Mr. Tenorio refuses to acknowledge. My family becomes irritated with me when I take pictures of distribution equipment and ask for their electricity bills (Docket 13-0387; City/Cub Ex. 1.0, pp. 13-24). In addition to cost data analyses, I have put some of pictures and included some of these bills in my testimony over the years. Mr. Tenorio must have skipped over the photos in these parts of my testimony as well.

**Q. Mr. Tenorio testifies (LL 406-408) that “A premises that is occupied by a low-use customer one year may be occupied by a high-use customer the next year.” Do you also feel the need to comment on this?**

**A.** Yes. As with the other two comments, I have presented analytical work demonstrating the stability of low use consumers over time in previous testimony. (City/CUB Ex. 2.0 in docket 13-0387, pages 28-32; CUB Ex. 1.02 pages 35-45) There is a fundamental point that the amount of electricity you use is in large part related to the size of your home. If

207 you live in a studio apartment you will probably use less electricity than if you live in a  
208 twelve room mansion. If somebody else moves into your apartment or into the mansion,  
209 their electricity usage will also reflect the size of the home. I am reminded of Upton  
210 Sinclair's observation that "It is difficult to get a man to understand something, when his  
211 salary depends upon his not understanding it!" Nonetheless, having to make such obvious  
212 points over and over again wastes the Commission's time as well as paper, legal fees and  
213 other costs.

214  
215 **OTHER COMMENTS AND IMPLEMENTATION OF A LOW-USE CLASS**

216 **Q. Do you have a response to arguments made by Mr. Tenorio and Mr. Garcia that**  
217 **there are "minimum distribution costs" which they say justifies imposing more costs**  
218 **on low-use consumers than are measured in the cost of service study? (ComEd Ex.**  
219 **1.0, 1:16-19 and ComEd Ex. 5.0 LL 277-283)**

220 **A.** For the past few cases ComEd has testified that distribution costs are driven by peak  
221 demand. Application of a minimum distribution method that would measure distribution  
222 costs using methods other than peak demand has been an argument made and rejected for  
223 many years by large consumers such as industrial facilities. Until this case, ComEd has  
224 vigorously opposed any minimum distribution approach. For good reason this idea of a  
225 hypothetical minimum system has been consistently rejected by the Commission. To see  
226 ComEd changing its long held position and supporting arguments that have consistently  
227 advocated by large users is very disappointing.

228 More important, though, is the fact that ComEd's position that low-use consumers  
229 incur higher costs than costs than those that are explicitly measured in the cost of service

study is especially problematic -- because ComEd has never studied the cost of service for low use consumers as explained above. According to ComEd, it can have no basis for concluding that low use customers costs are higher than anything, since ComEd claims to be unable to measure low use customer costs.

**Q. Mr. Garcia asserts that low income consumers would be more harmed by a per kWh charge to recover costs of roof-top solar facilities (distributed generation) than the customer charge increase incurred by the SFV. (ComEd Ex. 4.0; p. 13-14; LL 256-317). Does this position make any sense?**

A. None whatsoever. Mr. Garcia inserted a couple of quotes stating that low income consumers may be harmed by distributed generation (“DG”) (which probably means roof-top solar). ComEd seems to be very worried about people putting solar panels on their roof, as the economics of solar power have dramatically improved in the past few years. If solar power would come in quickly, if solar facilities would not offset construction of distribution equipment, and one makes enormous assumptions about whether existing facilities simply cover slower growth (i.e., are not suddenly useless) and what regulatory policy is adopted in those assumed (but speculative) circumstances, then ComEd can construct a lost revenue problem (as it has if you are more conscientious about turning off the lights or putting insulation around your front door).

The quotes did not imply in any way shape or form that imposition of a customer charge to recover costs of lost revenues would be good for low income consumers. Mr. Garcia’s somewhat curious argument appears to be “if we unfairly include costs low use customers do not cause through SFV, they won’t notice as much if DG costs are added.”

252 **Q. Both Mr. Tenorio and Mr. Garcia suggest that you do not support segmentation of**  
253 **low-use consumers in ComEd's rate design. Is this correct?**

254 A. Not at all. ComEd's load data imply that demand profiles are more efficient for low  
255 users than for other groups, which alone justifies a separate class. Unfortunately,  
256 although the loads are more efficient for low-users, the impacts on ComEd's rates are not  
257 large because of the enormous customer charge that I documented in my direct testimony.

258 Measurement of the recovery percentages for different classes that has been  
259 presented in this case would not have been possible separate classes were not maintained.  
260 If the Commission does not also change ComEd's inequitable customer charge, having a  
261 group of customers where the customer charge represents such a large proportion of the  
262 bill will hopefully prompt reexamination of the issue in the future. A separate class may  
263 prompt ComEd to one day even come around and actually measure the real costs of  
264 service for this class.

265 To demonstrate the importance of maintaining segmentation of customers with  
266 distinct costs, consider the case of multi-family consumers. A few years ago ComEd  
267 argued that the multi-class should be eliminated and that rates had not been very different  
268 for the single-family and the multi-family class for the past few years. Fortunately, the  
269 multi-family class was not eliminated and cost data for that class had to be maintained.  
270 In this case, we find that multi-family consumers without space-heat (the lowest use  
271 class), in fact, have much better load factors than the single family non-space heat class.  
272 With hindsight, it was very important to keep the classes distinct.

275 **CONCLUSION AND RECOMMENDATION**

276 **Q. Given the ComEd rebuttal testimony, could you summarize your specific**  
277 **recommendations?**

278 A. I have the following five recommendations:

279 1. ComEd should be ordered to cap the customer charge at 25% of the bill of  
280 residential consumers. This recommendation was explained in my direct testimony and it  
281 is re-enforced by the fact that ComEd has not measured cost of service for low users as it  
282 was ordered to.

283 2. The SFV should be rejected again as it is not cost based and has highly inequitable  
284 impacts on low-use consumers.

285 3. Rates for the multi-family class should be reduced immediately by 18% to reflect  
286 the more accurate load data that is acknowledged by ComEd. (ComEd apparently does  
287 not object to this recommendation).

288 4. ComEd should implement a low-use class for residential consumers and adjust  
289 rates according to my analysis in this case.

290 5. In future cases, ComEd should use the AMI data rather than its load research data  
291 for allocation of inter-class costs.

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

293 A. Yes.