

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY)	
)	
Tariff filing to present the Illinois Commerce)	Docket. 13-0387
Commission with an opportunity to consider)	
Revenue neutral tariff changes related to rate)	
Design authorized by subsection 16-108.5(e) of)	
the Public Utilities Act)	

DIRECT TESTIMONY OF EDWARD C. BODMER
ON BEHALF OF THE CITY OF CHICAGO AND THE CITIZENS UTILITY BOARD

CITY/CUB EXHIBIT 1.0

JULY 29, 2013

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1 **QUALIFICATIONS AND SUMMARY OF TESTIMONY**

2 **QUALIFICATIONS**

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

4 A. My name is Edward C. Bodmer. I am testifying on behalf of the City of Chicago
5 (“City”) and the Citizens Utility Board (“CUB”).

6 **Q. Have you previously testified before the Illinois Commerce Commission (the**
7 **“Commission”)?**

8 A. Yes. I have provided analyses and testimony in Commission cases over a period
9 spanning more than three decades. While the majority of my professional activity is no
10 longer associated with providing testimony in utility proceedings, I have been involved in
11 a variety of Commonwealth Edison Company (“ComEd” or the “Company”) rate and rate
12 design matters on almost a continual basis since beginning my career as a member of the
13 Commission Staff when Jimmy Carter was president. I have testified before this
14 Commission on behalf of Staff, as a consultant for the City of Chicago and other
15 consumer representatives, and once – many years ago – even in support of ComEd. I
16 appeared most recently as a rate design expert, on behalf of the City of Chicago, when the
17 Commission last examined ComEd’s rate design – in ComEd’s 2010 rate case.

18 **SUMMARY OF FINDINGS**

19 **Q. What are the principal subject areas that you address your testimony in this case?**

20 A. My testimony focuses primarily on the unfairness of ComEd’s residential rates,
21 particularly as they affect residential ratepayers in high density areas and consumers who

22 typically use less electricity than other ComEd ratepayers. First, I examine the context of
23 ComEd’s cost of service and rate design. Second, I provide data and analyses that
24 demonstrate variations in costs of service among residential ratepayers that are correlated
25 with ratepayer usage. Third, I discuss policy issues implicated by this investigation of
26 ComEd’s rate design. Finally, I examine several specific problems with ComEd’s
27 residential usage study.

28 **Q. What are the major findings from your analyses of ComEd’s residential cost of**
29 **service and usage data?**

30 **A.** The most compelling findings with respect to ComEd’s residential cost of service and
31 rate design are:

32 ➤ ComEd’s monthly customer charge -- the highest in the nation – is not derived from
33 its cost of service. The high charge is driven in part by ComEd’s false contention that
34 the “fixed” nature of distribution costs implies such costs should be recovered
35 through the customer charge. It also comes from ComEd’s assertion that a very high
36 percentage of the cost of service (more than 50% of the entire cost for apartments) is
37 “customer related.” The only truly “fixed” or “embedded” account related costs are
38 the carrying costs of depreciated meters and the costs of paper and stamps associated
39 with sending out a bill and nothing else. These are the costs that are actually caused
40 by virtue of the existence of a ratepayer account and can be defined by the costs
41 ComEd incurs when a house is split into a duplex or an apartment building is
42 separated into smaller units. These true account related costs sum to about one dollar
43 per ratepayer per month. These true account related costs are about 9% of the total

44 delivery services cost for multi-family consumers, rather than the 52% assumed by
45 ComEd.

46 ➤ Actual costs of service for residential consumers are closely tied to their average level
47 of usage. The cost per kWh of delivery services increases with ratepayer usage in the
48 residential class, because low usage is closely correlated with (1) high density; (2)
49 better load factors; (3) older housing stock and distribution equipment; (4) less tree
50 trimming; and, (5) more overhead lines. ComEd's actual costs of service, which
51 increase as usage increases, are not reflected in the opposite pattern of ComEd's rate
52 structure, in which prices decline sharply as usage increases.

53 ➤ To further its rate design objectives, ComEd -- by default -- incorrectly attaches the
54 label "fixed" to any cost that does not rise and fall with each kWh of usage. It does
55 so, even though its cost of service study recognizes energy usage at the time of the
56 regional system peak demand (the peak) is the sole driver of distribution costs it calls
57 "fixed."

58 ➤ Contrary to assertions made by ComEd in testimony, costs associated with consumer
59 usage during peak periods is not caused by, or properly allocated based on, the
60 number of accounts.

61 ➤ ComEd's "Residential Usage Study" (ComEd Exhibit 2.33) is highly flawed because
62 it concludes that there is no relationship between average consumer usage over a year
63 and customer usage during the peak. This implies that usage during the peak is not
64 driven by the size of home; not correlated with annual usage; and, not associated with
65 the number of people who live in a residence. Because of critical defects in the study,
66 the Commission should not rely on it to design revenue neutral rates in this case.

- 67 ➤ For consumers who are careful in the way they use electricity, ComEd’s high
68 customer charge works directly against Illinois’ energy efficiency or conservation
69 policies.
- 70 ➤ ComEd has presented data that prove usage is very closely correlated with household
71 income. This confirms that the current rate design is not only unfair, but highly
72 regressive. ComEd’s main objective in establishing high customer charges appears to
73 be to lower revenue variability and corporate risk. This policy results in an
74 unnecessary distortion of cost-based rates, given that ComEd’s formula rates assure
75 cost recovery.
- 76 ➤ There are important differences between high customer charges for ComEd and high
77 customer charges in the natural gas distribution business (which also have been
78 questioned).
- 79 ➤ An alternative rate design where customer charges increase with defined bands of
80 usage can avoid the unfair impacts on low use and low income consumers that is part
81 of ComEd’s current structure while protecting recovery of ComEd’s embedded costs
82 from weather fluctuations or long-term weather changes due to global warming.

83 **SUMMARY OF COST OF SERVICE AND RESIDENTIAL RATE DESIGN ANALYSES**

84 **Q. Why is your testimony so long?**

85 A. When I was hired to work on this case I told City officials that I would try to keep the
86 testimony short in this case. However I was not able to achieve my goal. One reason is
87 that I have included a number of pictures, graphs, and diagrams in my testimony when
88 they are useful to illustrate or to clarify. Another reason is the need to respond in detail

89 to the illogical conclusions and the flawed analysis in ComEd’s “Residential Usage
90 Study” (ComEd Ex. 2.33). Portions of that study require a line by line critique.

91 **Q. Does your testimony address any of the Commission directions that were part of the**
92 **Commission’s Order in Docket 10-0467?**

93 A. Yes. Most of my testimony responds directly to the Commission's directives and
94 expressed concerns in that case, particularly as they related to the equity implications of
95 ComEd’s rate structure on low use residential consumers. Many of those consumers live
96 in multi-family housing in Chicago. In its Order in the 10-0467 case and in discussing
97 the issue during oral argument in that case,¹ the Commission was clearly concerned about
98 disparate impacts of ComEd’s rate design on low use consumers and expressed a strong
99 interest in receiving evidence on that issue. The Commission ordered ComEd to address
100 the issue in its next rate proceeding.

101 However, the Commission takes particular note of arguments regarding
102 the possible disparate impact of a SFV design on low-use customers,
103 especially in the Chicago region. Therefore, in its next rate proceeding,
104 ComEd must provide evidence that demonstrates whether the impacts on
105 the low-use subgroup in the residential customer class are such that it
106 would be appropriate to have a new class cost of service and rate design
107 for that identifiable group. The Commission also encourages ComEd to
108 explore how it defines the low-use customer sub-class. Final Order at 232.

109 Since the last case, ComEd’s ratepayers have experienced large increases in
110 monthly customer charges, resulting in precisely the disparate impacts that were of
111 concern to the Commission. Of the many pages of testimony and exhibits in this case,
112 most focused on matters concerning its large business consumers, without sufficiently
113 addressing the above directive. ComEd has provided little or no evidence that it has – as

¹ The Commissioners’ discussion during oral argument can be accessed through the Commission’s electronic docket system at www.icc.illinois.gov/downloads/public/edocket/294273.pdf (pp 79-97).

114 the Commission ordered -- investigated whether new customer class definitions or rate
115 designs are appropriate. Neither did the company address the directive involving how it
116 should define the low-use ratepayer sub-class.

117 **Q. Since the Commission's order in 10-0467 have there been changes in pertinent**
118 **factors that increase the need to revisit ComEd's very high customer charges?**

119 A. Yes, there have been several developments. Any revenue stability justification for a high
120 customer charge has disappeared due to formula rates that assure stable revenues and cost
121 recovery for ComEd. Further, as the commodity portion of consumers' electric bills has
122 declined relative to ComEd's fixed charges, the perverse incentive to waste electricity
123 (created by high customer charges) has been aggravated. Finally, it is clear that copying
124 natural gas utility pricing policies, which have increased their customer charges, over to
125 electric utilities is not appropriate. The evidence of that inappropriateness includes more
126 regressive impacts of high customer charges for electric utility ratepayers, continued
127 trends in global warming, greater geographical diversity of usage among electric utility
128 consumers, and differences in the treatment of gas and electric utility costs for consumers
129 in multi-family housing.

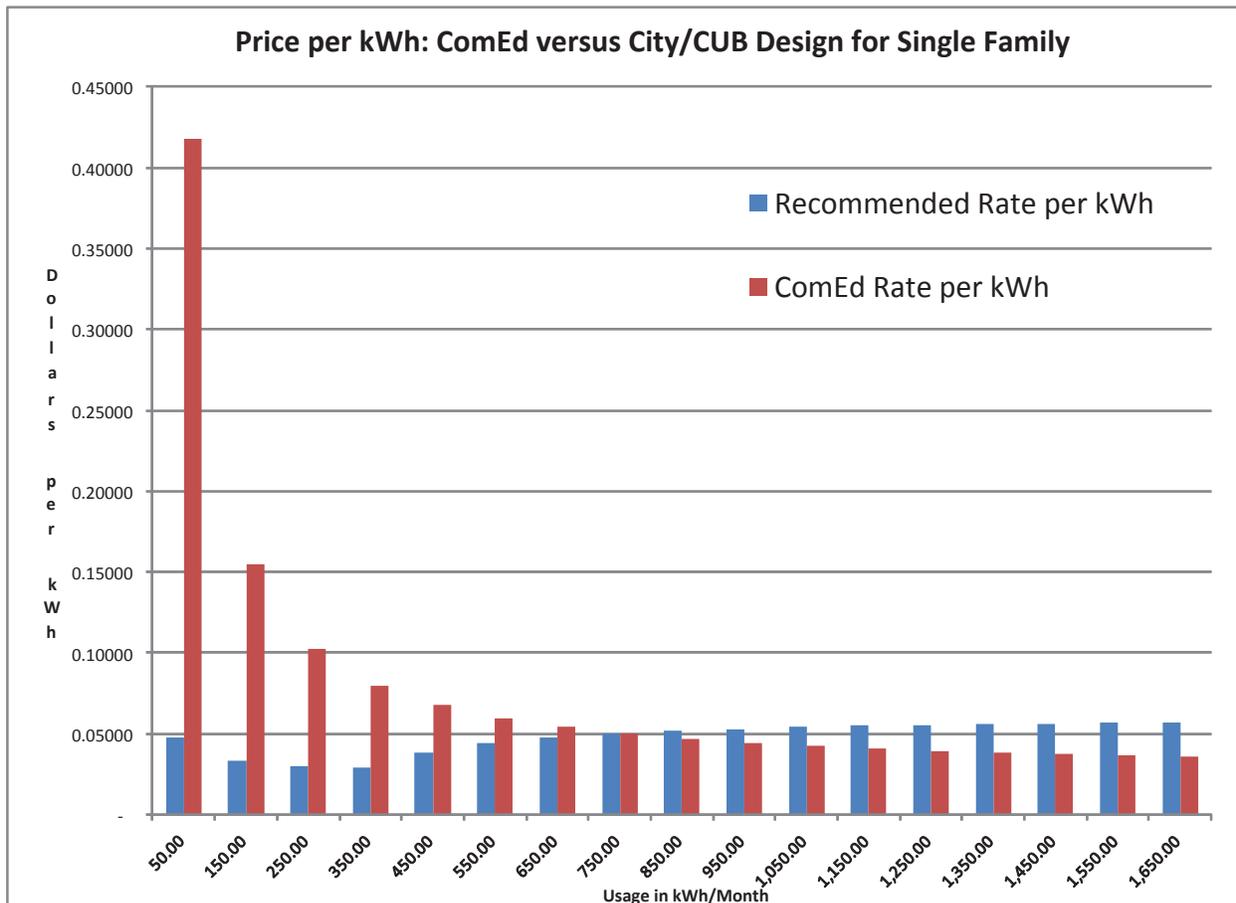
130 **Q. Describe the proposal you have developed for an alternative rate design that**
131 **addresses the Commission's concerns, as well as those developments?**

132 A. I propose a cost-based, revenue neutral, set of tiered monthly customer charges that vary
133 to recognize the correlation between usage and key cost drivers. The idea of a graduated

134 customer charge came directly from Commissioners' questions and remarks during the
135 oral argument in Docket 10-0467.

136 The variable cost-based customer charge (which would include the metering
137 charge) would be one dollar per month for single-family ratepayers who use less than an
138 average of 400 kWh per month on a weather adjusted basis.² For single-family
139 ratepayers who used, on average, between 401 kWh and 500 kWh in the past year, the
140 customer charge would be higher. The customer charge would continue to gradually
141 increase for each 100 kWh per month increment in prior year average monthly usage. To
142 illustrate the result of this proposal, the graph below compares my recommended rate
143 design (in blue) with ComEd's rate design (in red). The graph shows that my proposal
144 reduces the average price paid per kWh for low use consumers and moderately increases
145 prices for high-use ratepayers. The break-even occurs at a usage level of 750 kWh per
146 month.

² The charge would be adjusted for vacation homes, where zero usage is not counted in the average.



148 The total dollar amount collected from customer charges in my proposal would be
 149 exactly the same as the amounts collected using the current rate design. The only
 150 differences are (1) that revenues from customer charges would be collected from
 151 graduated charges rather than a uniform charge and (2) the allocation of costs that
 152 ComEd treats as customer related is corrected. I have developed a similar graduated
 153 customer charge proposal for the other sub-classes of residential consumers (multi-family
 154 non-space heat, single family space heat and multi-family space heat). Correcting
 155 ComEd’s allocation of costs reduces revenue requirements allocated to the multi-family
 156 non-space class by about 20%.

157 In implementing a graduated customer charge, I suggest that ComEd include on
158 each ratepayer's electric bill a clear notice that lower usage will reduce the applicable
159 customer charge, so as to encourage energy efficiency and conservation. The notice
160 would be a bit like the Surgeon General's warning on cigarette packages, except that
161 instead of saving your life, you can help save the planet – and your pocketbook.

162 **Q. Does your testimony address any issues related to the inter-class allocation of**
163 **revenue requirement responsibility?**

164 A. Yes. In past cases, the City has argued in favor of allocating costs on the basis of system
165 coincident peak that ComEd's facilities must serve. Opponents of that approach have
166 argued instead for an allocation factor called system-wide non-coincident peak that is
167 unrelated to the localized demands that drive ComEd's costs of service. ComEd
168 presented a number of cost studies that use the non-coincident peak approach the
169 Commission has declined to adopt. Those studies -- unlike neglected issues of rate
170 design equity for low use ratepayers -- were not part of any Commission directive.
171 ComEd's selection of cost of service and rate design alternatives to present favors rate
172 designs and cost allocations preferred by supporters of non-coincident peak allocations.

173 **Q. Is there something in common among the issues that you address?**

174 A. Yes. When evaluating important aspect of ComEd's rate design -- the manner in which
175 ComEd designs rates to recover distribution costs; how it allocates items that it names
176 customer related costs; how ComEd ignores impacts on low-use consumers when
177 presenting tariff components; and the arguments it makes in the residential usage study --

178 it is helpful to take a step back and examine the results of ComEd's analysis. Examples
179 of where I hope the Commission will ask if things really make sense include:

- 180 - Does it make sense that a large house with many rooms uses the same amount
181 of electricity at the system peak time and has the same distribution cost as a
182 small studio apartment;
- 183 - Does it make sense that sending out a bill and having a standard meter should
184 represent 50% of the entire delivery service costs for an apartment;
- 185 - Does it make sense that regions of ComEd's service area that have more low
186 income residences should pay prices that are about 25% higher than prices in
187 high income regions.
- 188 - Does it make sense to ignore density, equipment age, undergrounding, load
189 factors, and other items that are correlated with usage in designing ComEd's
190 delivery service rates;
- 191 - Does it make sense, as ComEd claims, that the amount of energy usage during
192 peak periods has nothing to do with the average energy use of a consumer.

193

194 **Q. Are there any positive elements of ComEd's presentation?**

195 A. Yes. ComEd was asked to prepare an analysis of call center and other costs that the
196 utility had previously classified as billing costs, where the new analysis treated them
197 instead as indirect uncollectible amounts. ComEd did a good job on this task, and they
198 deserve to be commended for that. Also, ComEd properly computed the costs of
199 secondary street lighting for City facilities.

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BACKGROUND
A Look at ComEd’s System and Costs

Q. Are ComEd’s rates equitable to low-use consumers in the City of Chicago?

A. No, they are not, mainly because of the usage characteristics of ComEd’s low-use consumers and the nature of its facilities and costs in Chicago.

Q. Can you provide a simple explanation of these factors?

A. Yes. Recently, I was asked to explain many of these same issues to an inquisitive visiting relative during our tour of the City of Chicago. My Uncle Gerald, who resides in London, visited Chicago earlier this year. Gerald visits my father once a year, as my father does not like to travel to England anymore. Gerald has long believed that Chicago is one of the wonderful cities of the world, and on his trip this year he asked me to show him to some of the neighborhoods in Chicago. We took walks around Little Italy, Pilsen, Roger’s Park, Lakeview, and other areas of the City. As my uncle is aware of my work, while we walked around the City, we discussed the state of ComEd’s distribution system. I had to explain to Gerald why these charming neighborhoods in Chicago had such a tangled mess of wires in the alleyways. He asked how could such a lovely city have electricity wires that could be in a third world megalopolis (he used the politically incorrect “third world” phrase, not me.) I tried to explain that the messy looking above ground distribution system (which does not exist in even the poorest countries of Europe, like Bulgaria) was built to save money. I told him that putting above-ground wires in alleys where there is a high population density means that the cost to distribute electricity is very low for these people and that the high consumer density means that relatively

222 short wires are used for each home. I have included a couple of the snapshots I took of
223 the above ground distribution lines below.

224 PICTURES 1A AND 1B



225 Later in Gerald's visit, we drove around some of the wealthy Chicago suburban
226 areas -- of course we could not walk in those more dispersed neighborhoods as we had in
227 the City. I reminded Gerald of the old distribution system in City alleyways (which
228 looked like it could be from Manila). Then I pointed out that the suburban distribution
229 we saw was often underground and that the lines had to cover much longer distances
230 between houses. Gerald matter-of-factly concluded that the prices per unit of electricity
231 must be much higher for people who live in these suburban palaces, since investment
232 needed to distribute electricity in those areas is an order of magnitudes higher. I tried to
233 explain to him that ComEd plops much of its cost into a standing charge. (In England,
234 the modest customer charge is called a standing charge, but we agreed a better name
235 would be a sleeping charge). I told him that because of the standing charge and because
236 ComEd also does not differentiate its cost recovery according to consumer density, type

237 of equipment,³ or age of equipment, the prices per unit of electricity delivered do not
238 follow costs. When I told him that if five small houses in a Chicago neighborhood added
239 up to the size of a house in Lake Forest, that the five houses would pay five times as
240 much even though they might use a smaller quantity of distribution equipment (because
241 of density) with lower cost (density and age), he seemed perplexed and just shrugged his
242 shoulders.

243 PICTURE 2



244 If ComEd had achieved its objective of putting 80% of distribution costs into customer
245 charges, the house in the picture above would pay just about the same amount as a small
246 bungalow in the City of Chicago, notwithstanding the obvious differences in the amounts
247 of electricity and facilities needed to serve the houses.

³ I am aware that the terms equipment and facilities may have different meanings to engineers, but since my focus is costs, not engineering, I use both terms inclusively.

248 **Q. Did you discuss the origins of the pricing structure your visitor found perplexing?**

249 A. Yes. I told Gerald that the utility company had invented a new scheme called something
250 like SVA (I may have said VFA or SFA; I couldn't remember the utility-invented
251 acronym). I tried to explain how the high standing charges were implemented because
252 the utility company was extremely risk averse. The explanation I offered was that high
253 standing charges protect the utility company in the case of falling revenues that could
254 arise if usage goes down due to energy conservation, weather changes, reduced economic
255 activity, or other things.

256 **Q. Have you included more concrete information in your testimony that provides**
257 **context for your analysis of the cost of service issues and ratepayer impacts**
258 **associated with ComEd's customer charges?**

259 A. Yes. I have included a few electric utility bills that demonstrate the problems with
260 ComEd's existing rate structure and why consumers with different usage levels cannot be
261 lumped into the same rate class. While just about everybody has probably looked at their
262 electric bill and though working through bill calculations may seem a bit simplistic, the
263 exercise of reviewing a few different bills may, in fact, be just as useful as some of the
264 more sophisticated regression analysis and other research discussed later in my
265 testimony. I include (and discuss) the electric bills for a low-user in Evanston, a
266 moderate user in the City, and an inefficient user in the suburbs. This simple review of
267 actual bills illustrates a host of issues associated with ComEd's data and cost of service
268 analyses and the current rate structure.

269

270 **Q. Discuss the electric bill for the low user in Evanston.**

271 A. This ratepayer, who lives in an apartment in Evanston, used only 91 kWh in April, which
272 is consistent with her usage from prior months. She does not have an air conditioner and
273 the \$12.22 delivery services portion of her bill is a lot more than the \$7.10 commodity
274 portion. Dividing the \$12.22 by 91 kWh yields a delivery services price of 13.42 cents
275 per kWh. As we will see shortly, that per kWh delivery price is more than the combined
276 per kWh rates of 12.05 cents per kWh for the commodity plus taxes plus delivery charges
277 of the high user. Of the \$12.22 in delivery service charges, \$6.85 is for the customer
278 charge and \$2.92 is called the standard metering charge. Unlike other utility companies,
279 ComEd has two charges on its bill that do not vary with usage – the metering charge and
280 the customer charge. To avoid confusion I will use henceforward use the term “account
281 charge” to refer to the combined meter charge and customer charge. For this low user,
282 the account charge of \$9.77 is 80% of the total delivery services bill.



Bill Summary	
Previous Balance	\$37.04
Total Payments - Thank You	\$37.04
Amount Due on May 23, 2013	\$20.71

Issue Date May 1, 2013

Meter Information								
Read Date	Meter Number	Load Type	Reading Type	Previous	Meter Reading Present	Difference	Multiplier X	Usage
5/1	999537825	General Service	Total kWh	91611 Actual	91702 Actual	91	1	91

Service from 4/4/2013 to 5/1/2013 - 27 Days

Residential - Multiple

Electricity Supply Services				\$7.10	
Electricity Supply Charge	91 kWh	X	0.07491	6.82	
Transmission Services Charge	91 kWh	X	0.00811	0.74	
Purchased Electricity Adjustment				-0.46	
Delivery Services - ComEd				\$12.22	
Customer Charge				6.85	
Standard Metering Charge				2.92	
Distribution Facilities Charge	91 kWh	X	0.02566	2.34	
IL Electricity Distribution Charge	91 kWh	X	0.00121	0.11	
Taxes and Other				\$1.39	
Environmental Cost Recovery Adj	91 kWh	X	0.00056	0.05	
Energy Efficiency Programs	91 kWh	X	0.00157	0.14	
Franchise Cost	\$11.65	X	2.91000%	0.34	
State Tax				0.30	
Municipal Tax				0.56	
Total Current Charges				\$20.71	

284 The bill for our low user can be used to introduce a couple of other issues
 285 examined in the data analysis and cost of service evaluation below. Whether her meter is
 286 more than 20 years old and fully depreciated or brand new, the metering service charge of
 287 \$2.92 is the same for all "Residential-Multiple" ratepayers. For this bill, metering costs

288 constitute a surprising 24% of the entire delivery services cost. This suggests that if you
289 added the cost of all the 12 kV lines, the secondary lines, the transformers, the poles, the
290 substations, the tree trimming costs, the service drops, billing costs, stamps and other
291 equipment used to get electric power to her apartment; a full 24% of the total is
292 represented by the cost of her meter. My analysis below shows that the true cost of her
293 depreciated meter is only 1.4% of delivery services costs. In this context, the metering
294 service charge simply does not make sense.

295 The customer costs that ComEd allocates to low users are very unfair, as
296 illustrated by the above bill. ComEd classifies things like software costs of its creating its
297 billing system related to open access as a customer cost, as well as costs of re-connecting
298 ratepayers, costs of dealing with ratepayer complaints, expenses for customer
299 representatives, and other items, as costs that are caused by virtue of the existence of a
300 separate account. This means that our low user would be allocated half of the cost of
301 billing systems, sales, advertising, and a whole bunch of other things, if she moved in
302 with somebody else and lived in a larger apartment. Currently she pays the same amount
303 for these costs as the large mansion shown in the picture above, even though these costs
304 cannot be directly associated with the processes of reading her meter or sending her
305 particular bill. As explained below, costs related to things like the implementation of an
306 open access policy cannot be directly associated with energy, demand, or the number of
307 customers. Such costs must instead be attributed to ratepayers as a percentage of their
308 total bills. The case of the low user in Evanston demonstrates that the need to re-
309 structure ComEd's account charge is not limited to consumers inside the boundaries of
310 the City of Chicago.

311 **Q. Discuss the electric bill for a moderate user in Chicago?**

312 A. Our moderate user lives in a two-flat in the Little Italy neighborhood of Chicago. Even
313 though she lives in a two-flat, ComEd defines her multi-family home in the single family
314 category and applies the higher account charges. Her usage of 445 kWh would put her at
315 about the City median usage of 450 kWh for single-family accounts and above the
316 median City usage of 250 kWh for the multi-family class. For this ratepayer, the \$15.96
317 account charge represents 63% of her delivery services charges bill of \$25.31. The
318 delivery charges divided by the usage results in a total delivery service price of 5.68 cents
319 per kWh, which is lower than the price paid by the low user in Evanston because the
320 fixed charge is spread over more consumption of electricity. Our moderate user moved
321 to Chicago last year and was used to paying a lower account charge. A comparison of
322 ComEd's account charge to those of other companies (presented later) demonstrates
323 Chicago has the highest account charge in the entire U.S.A.

Bill Summary									
Previous Balance									\$81.75
Total Payments - Thank You									\$81.75
Amount Due on March 27, 2013									\$57.03

Issue Date March 5, 2013

Meter Information									
Read Date	Meter Number	Load Type	Reading Type	Previous	Meter Reading Present	Difference	Multiplier X	Usage	
3/4	995899882	General Service	Total kWh	5786 Actual	6231 Actual	445	1	445	

Service from 2/4/2013 to 3/4/2013 - 28 Days Retail Delivery Service - Res Single

Electricity Supply Services - Integrys Energy Services Inc				\$24.14
ENERGY CHARGE 445 kWh X 0.05424				24.14
Integrys Energy Services Inc 1-888-802-2885 www.integrysenergy.com				
Please refer to your supplier contract for details.				

Delivery Services - ComEd				\$25.31
Customer Charge				13.04
Standard Metering Charge				2.92
Distribution Facilities Charge		445 kWh X	0.01979	8.81
IL Electricity Distribution Charge		445 kWh X	0.00121	0.54

Taxes and Other				\$7.58
Environmental Cost Recovery Adj		445 kWh X	0.00059	0.26
Energy Efficiency Programs		445 kWh X	0.00157	0.70
Franchise Cost				2.36
State Tax				1.47
Municipal Tax				2.79

Total Current Charges **\$57.03**

325 The moderate user phoned ComEd’s call center when she moved into her duplex,
 326 as well as at other times last year. The cost of these phone calls to ComEd are incorrectly
 327 classified as billing costs and would be disproportionately allocated to low-users like the
 328 person in Evanston, under the company’s theory that virtually any overhead cost should

329 be associated with simply having a meter and paying a bill, even though virtually any
330 other business could only recover these costs through increasing usage based prices.
331 Clearly, our moderate user could reduce her energy usage for her small apartment, by (for
332 example) being more careful about using her air conditioner, turning off the lights, and
333 washing dishes by hand. If there is a big notice on her bill that her fixed charges will
334 decline if she uses less electricity, she may change her behavior, which would be good
335 for the environment and her pocketbook. Finally the moderate user's bill illustrates an
336 important difference between natural gas and electricity account charges that relates
337 directly to the applicable Commission policies. Her landlord pays for her natural gas
338 utility service and includes its cost in her rent. As a result, there is only one account
339 charge for the entire building, which ComEd's tariffs prohibit in almost all cases for
340 electric utility service.

341 **Q. Discuss the electric bill for a high user who lives in the western suburbs?**

342 A. The high user in the suburbs lives in a single family home. For the month selected, our
343 high user used 1,859 kWh which puts him above the 75th percentile for single-family
344 consumers outside of the City. In his bill, the account charge of \$15.96 per month is only
345 29% of the delivery services cost of \$55.00 which, when divided by the usage produces a
346 delivery services price of 2.95 cents per kWh. Many nearby suburban subdivisions that
347 were built during the housing boom that occurred prior to the financial crisis are served
348 from underground primary and secondary lines. In its 2007 rate case that increased
349 distribution rates by \$273 million, ComEd repeatedly argued about just how much more

350 the cost of new distribution equipment was than the existing distribution equipment in
 351 order to justify the increase.

352 **FIGURE 4 -- SUBURBAN HIGH USER**



Bill Summary	
Previous Balance	\$192.28
Total Payments - Thank You	\$192.28
Amount Due on April 10, 2013	\$224.15

Issue Date March 19, 2013

Meter Information								
Read Date	Meter Number	Load Type	Reading Type	Previous	Meter Reading Present	Difference	Multiplier X	Usage
3/19	998555792	General Service	Total kWh	1368 Actual	3227 Actual	1859	1	1859

Service from 2/19/2013 to 3/19/2013 - 28 Days

Residential - Single

Electricity Supply Services				\$145.04	
Electricity Supply Charge	1,859 kWh	X	0.07491	139.26	
Transmission Services Charge	1,859 kWh	X	0.00811	15.08	
Purchased Electricity Adjustment				-9.30	
Delivery Services - ComEd				\$55.00	
Customer Charge				13.04	
Standard Metering Charge				2.92	
Distribution Facilities Charge	1,859 kWh	X	0.01979	36.79	
IL Electricity Distribution Charge	1,859 kWh	X	0.00121	2.25	
Taxes and Other				\$24.11	
Environmental Cost Recovery Adj	1,859 kWh	X	0.00059	1.10	
Energy Efficiency Programs	1,859 kWh	X	0.00157	2.92	
Franchise Cost	\$54.43	X	4.21400%	2.29	
State Tax				6.13	
Municipal Tax				11.67	
Total Current Charges				\$224.15	

353 The higher user in the suburbs is such an in-efficient user that he regularly
354 receives a letter from ComEd comparing his usage to other consumers. Even though he
355 throws the letters away without reading them, they are probably a good idea. The issue
356 raised by those letters is not whether they are part of a good plan, but how the costs of
357 preparing and sending them should be allocated. As with so many other costs not related
358 directly to either the number of customers or the number of kWhs consumed in a month,
359 ComEd, by default, shoves the costs of these letters into the customer cost category. That
360 classification means they are disproportionately allocated to consumers such as the low
361 user in Evanston, who does not even receive them. Such costs are related to energy
362 efficiency and should either be directly allocated to inefficient users or across the whole
363 system on a non-arbitrary basis.

364 **RATE DESIGN IMPACTS ON LOW USE RATEPAYER BILLS**

365 **Q. Did ComEd present any specifics on how the account charge increase after the**
366 **change in Docket 10-0467 affected low use consumers, as directed by the**
367 **Commission?**

368 A. Certainly not enough, in my opinion. In the hundreds of pages of ComEd's direct
369 testimony, the Company does not report the level of its customer charges that would
370 result from the rate design changes. After digging into exhibits you can find a number
371 for the monthly account charge resulting from the 2013 revenue requirement – charges
372 that are imposed on a fixed basis and not affected by usage. That number is \$18.21 for
373 ratepayers who live in single family homes or duplexes and is higher than the customer

374 charge imposed by any other utility company in the nation. For ratepayers who live in
375 apartments or three-flats, the total monthly account charge is proposed to be \$10.97.

376 **Q. What has happened to account charges since the Commission order in the 2010**
377 **case?**

378 **A.** Before the last case, the account charge for single family ratepayers was \$9.88 meaning
379 that the charge would increase by 84% if ComEd's proposed account charge of \$18.21 is
380 approved. The reason for this increase is that in 10-0467 ComEd succeeded in moving
381 50% of its distribution capacity costs from the energy charge to the customer charge. For
382 multi-family consumers, the account charge increased from a level of \$8.89 implying a
383 percent increase of 23%.

384 Changes between ComEd prices before the 10-0467 Order and prices presented in
385 this case are shown in the table below. For single family ratepayers, the energy charge
386 has decreased while the customer charge has increased. Prices for space heat ratepayers
387 have declined while the non-space heat prices have increased dramatically.

388

	Single Family w/o Space Heat	Multi Family w/o Space Heat	Multi Family w/ Space Heat	Multi Family w/ Space Heat
ComEd Exhibit (1)				
Customer Charge (\$/Month)	18.21	10.97	20.3	11.94
Energy Charge (\$/kWh)	0.0238	0.031	0.01135	0.01431
Prior to 2010 Rate Increase				
Customer Charge (\$/Month)	9.88	8.89	9.88	8.89
Energy Charge (\$/kWh)	0.02437	0.02437	0.02048	0.02048
Percent Increase				
Customer Charge (\$/Month)	84.31%	23.40%	105.47%	34.31%
Energy Charge (\$/kWh)	-2.34%	27.21%	-44.58%	-30.13%
Billing Units (2)				
Customers (Annual)	2,232,153	1,041,504	34,999	159,349
Energy (MWH)	20,471,629	4,425,831	750,454	1,593,009
Average Use per ComEd	764.27	354.12	1,786.84	833.08
Revenues (Total Electric Bill in USD)				
Prior to 2010 Case	763,537,697	218,965,120	19,518,797	49,624,141
ComEd Exhibit	974,994,924	274,304,312	17,043,449	45,627,431
Increase	211,457,227	55,339,192	-2,475,348	-3,996,710
Percent Increase	27.7%	25.3%	-12.7%	-8.1%

(1) ComEd Ex. 2.03 2013 FRU ECOSS Current RRL

(2) ComEd Ex. 2.03

390 **Q. How does ComEd’s rate design and account charge compare to the account charges**
 391 **of utility companies that serve other large metropolitan areas in the U.S.?**

392 A. In the table below I have compared ComEd’s account charge to the account charge of
 393 utilities that serve the twenty largest metropolitan areas in the country. In addition to
 394 account charge, I include an indicator that displays whether the utility has an inverted
 395 block rate structure where prices increase with usage levels. I gathered the data by going
 396 to the website of each of the utility company and making a screen shot of the tariff book
 397 or a section of the website where the residential bill was explained. I was not able to find
 398 information for Texas utilities in Dallas because the website seemed to only deal with the
 399 competitive choice. The table below shows that ComEd not only stands out because of
 400 the very high account charge but also because of it is accompanied by a flat energy

401 charge. For example, Potomac Edison has a relatively high account charge of \$9.50 in
 402 Washington D.C. (still about half of ComEd's), but that company also has an inverted
 403 energy charge that includes an energy price of \$0.00737 per kWh for the first 400 kWh,
 404 which is only 35% of the energy charge of \$0.02144 per kWh for subsequent energy
 405 usage.

406 **TABLE 2 – MAJOR CITY RATE STRUCTURES**

Metropolitan Area and Population	Utility/Rate	Accounts Charge	Inverted Rates
1) New York-Newark-Bridgeport, NY-NJ-CT-PA - 21,976,224	ConEd Low Income	\$15.76	SUMMER
	ConEd Non Low Income	\$7.26	SUMMER
	Public Service Electric and Gas	\$2.27	FALSE
2) Los Angeles-Long Beach-Riverside, CA - 17,775,984	So Cal Edison	\$0.87	TRUE
	LADWP	\$0.00	TRUE
3) Chicago-Naperville-Michigan City, IL-IN-WI - 9,725,317	ComEd Single Family	\$18.21	FALSE
	ComEd Multi-Family	\$10.97	FALSE
4) Washington-Baltimore-Northern Virginia, DC-MD-VA-WV - 8,211,213	PEPCO Washington DC	\$9.50	TRUE
	PEPCO Maryland	\$6.78	FALSE
	BG&E	\$7.50	FALSE
5) Boston-Worcester-Manchester, MA-RI-NH - 7,465,634	NSTAR	\$6.43	FALSE
6) San Jose-San Francisco-Oakland, CA - 7,228,948	PG&E Minimum Charge	\$4.44	TRUE
7) Philadelphia-Camden-Vineland, PA-NJ-DE-MD - 6,382,714	PECO	\$7.09	FALSE
8) Dallas-Fort Worth, TX - 6,359,758	Texas Utilities	NOT FOUND	
9) Houston-Baytown-Huntsville, TX - 5,641,077	Reliant Energy Clear Flex	\$0.00	FALSE
10) Atlanta-Sandy Springs-Gainesville, GA-AL - 5,478,667	Georgia Power	\$9.00	SUMMER
11) Miami-Fort Lauderdale-Miami Beach, FL - 5,463,857	FPL	\$7.24	FALSE
12) Detroit-Warren-Flint, MI - 5,410,014	DTE	\$6.00	FALSE
13) Phoenix-Mesa-Scottsdale, AZ - 4,039,182	APS	\$8.55	TRUE
14) Seattle-Tacoma-Olympia, WA - 3,876,211	Puget Sound Energy	\$7.25	TRUE
15) Minneapolis-St. Paul-St. Cloud, MN-WI - 3,502,891	Excel MN Overhead	\$6.50	FALSE
16) Denver-Aurora-Boulder, CO - 2,927,911	Excel CO	\$6.75	TRUE
17) San Diego-Carlsbad-San Marcos, CA - 2,941,454	SDG&E	\$0.00	TRUE
18) Cleveland-Akron-Elyria, OH - 2,917,801	First Energy	\$4.00	FALSE
19) St. Louis-St. Charles-Farmington, MO-IL - 2,858,549	Ameren Missouri	\$8.00	FALSE
20) Tampa-St. Petersburg-Clearwater, FL - 2,697,731	Tampa Electric	\$10.50	TRUE

407 In reviewing the electric bills of other utilities, a number of the companies are
408 notable for the manner in which they use of inverted rates to explicitly encourage energy
409 efficiency. In particular, the two metropolitan areas that are larger than Chicago have
410 inverted rates. For example LADWP, the municipal utility serving Los Angeles states
411 when explaining its bill that: “Your monthly usage is divided into three tiers and each tier
412 has its own corresponding price. During the summer high-demand months, this three tier
413 system is used as an incentive for residential customers to conserve energy.” The
414 example of San Diego Gas and Electric stands out as a contrast to ComEd. This
415 company has both an inverted energy charge and a zero account charge that very strongly
416 encourages energy efficiency.

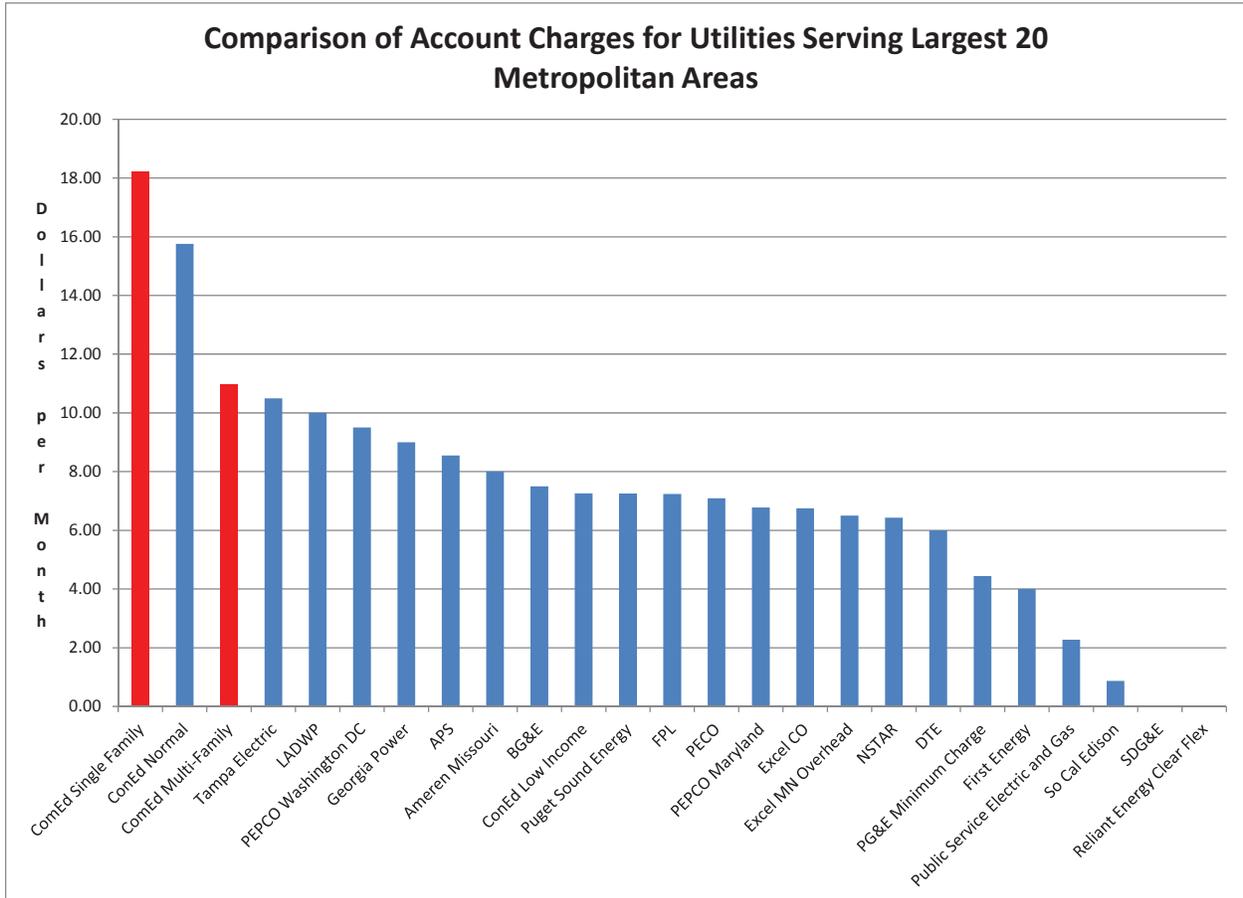
417 The company with the second highest account charge is ConEd of New York.
418 While this company has a relatively high account charge, it also has much higher total
419 costs than ComEd, implying that its account charge as a percent of the total is much
420 smaller (its delivery services energy charge for the first block is 8.99 cents per kWh
421 compared to ComEd’s charge of 2.43 cents per kWh, in part because you do not see any
422 overhead lines on the Island of Manhattan.) However, unlike ComEd, ConEd has an
423 inverted energy charge that increases to 10.2 cents per kWh, and it has a special low
424 income charge of 7.26.⁴

425 I have graphed the above data on the chart below. I also have computed the
426 median account charge. The median account charge without ComEd on the graph is

⁴ The low income charge can be obtained if a ratepayer is enrolled in Direct Vendor or Utility Guarantee Program and/or receiving benefits under Supplemental Security Income, Temporary Assistance to Needy Persons/Families, Safety Net Assistance, or Food Stamps, or have received a Home Energy Assistance Program grant in the preceding 12 months.

427 \$7.09, implying that ComEd's charge is 158% higher than the typical charge for other
 428 cities.

429 **FIGURE 5 -- MAJOR CITY ACCOUNT CHARGES**



430 **Q. How does ComEd's account charge affect consumer bills in different regions of the**
 431 **service territory?**

432 **A.** If all ratepayers in ComEd's service territory used about the same amount of electricity,
 433 then the increased customer charge might not be that big a deal. But the greater Chicago
 434 metropolitan area has a very diverse housing stock, encompassing many different types
 435 of apartment buildings and a wide range of sizes of single family homes. Partly because

436 of the geographic distribution of the different types, big differences in usage exist
437 between the City of Chicago and the outside city regions of the service territory.

438 I often use comparisons of the City of Chicago relative to outside City areas to
439 point out the importance of diversity in usage and to demonstrate the very large effects on
440 the average prices paid by ComEd consumers caused by the current pricing structure. To
441 be clear, I am not arguing in this case for differentiated rates according to location, as the
442 City advocated in ComEd's 2007 case and as existed prior to 1978. Relevant
443 characteristics of low-use consumers -- in terms of load factor, age of housing stock,
444 population density, and undergrounding are driven by the type of housing stock in the
445 area in which the residence is located. The characteristics of low use City consumers
446 would likely be similar (of course, not exactly the same) in nearby suburbs and other
447 areas where average income is lower than the wealthy suburban areas.

448 The median usage and the twenty-fifth and seventy-fifth percentile usages for
449 City consumers relative to outside City consumers are shown in the graph below. (I use
450 the terms ratepayer and consumer, rather than customer, because I consume electricity
451 and pay rates; I do not choose to be a customer of ComEd. No delivery service user in
452 ComEd territory has a choice of utility.) Differences in income, life styles, and other
453 factors result in the median monthly use per non-space heating consumer in the City
454 being only 58.5% of median monthly use for outside City consumers. In making
455 comparisons, I generally stick to non-space heat consumers, as they are the vast majority
456 of ratepayers and space heat usage can distort comparisons.