

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF)	
ROCKY MOUNTAIN POWER FOR APPROVAL)	Docket No. 11-035-200
OF A GENERAL RATE INCREASE IN ITS RETAIL)	
ELECTRIC UTILITY SERVICE RATES IN UTAH)	

DIRECT TESTIMONY ON RATE DESIGN

OF

DR. CHARLES E. JOHNSON

ON BEHALF OF

AARP

&

SALT LAKE COMMUNITY ACTION PROGRAM

JUNE 22, 2012

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INTRODUCTION

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

13 A. My name is Charles E. Johnson. My business address is 1086 - 7B Pleasant Blvd,
14 Toronto, Ontario M4T 1K2.

15 **Q. What are your qualifications to testify in this proceeding?**

16 A. I have received extensive training in various aspects of utility accounting, utility
17 planning and utility practices over the years and have a Master's Degree and
18 Ph.D. in Mathematics. I have met the requirements to be a Certified Depreciation
19 Professional by the Society of Depreciation Professionals. I have taught short
20 courses on utility matters to the Staff of several State Utility Commissions and
21 National Commissions of Caribbean Island Nations and to staff of various U.S.
22 Department of Energy facilities and National Laboratories. My work has also
23 included extensive engineering assessment of utility facilities at U.S. DOE
24 facilities and National Laboratories. I have been involved in utility proceedings
25 as a consultant for more than 30 years and have testified as an expert in
26 proceedings before utility commissions and courts throughout the country. I have
27 testified in several cases before Public Service Commissions in the intermountain
28 area, including Idaho, Montana, Utah, Wyoming and New Mexico. I have also
29 previously testified in cases involving Rocky Mountain Power during the past
30 dozen years.

31 **Q. On whose behalf are you testifying?**

32 A. I am testifying on behalf of AARP and Salt Lake Community Action Program
33 (SLCAP). AARP is a nonprofit nonpartisan organization for people age 50 and
34 over, dedicated to enhancing quality of life as we age. AARP has a significant
35 presence in Utah with over 200,000 members. SLCAP is a nonprofit, community
36 based organization that provides services for and advocates on behalf of low-
37 income households in Salt Lake and Tooele counties. SLCAP certified 18,644
38 households as eligible for energy assistance during the past heating season.
39 Additionally, over 25,000 households were served with non-energy related
40 services in 2011.

41 The 2010 U.S. census reported that 22.7% of Utah's population received Social
42 Security payments and of those 65 years of age or older, 93.4% receive Social
43 Security payments. Six percent of the over-65 population is below the poverty
44 line and 13.7% is below 150% of the poverty line. All of these people over 65
45 and others are among the people about whom AARP and SLCAP have concerns
46 for their well-being and ability to pay their utility bills. In addition, many other
47 Utahns are living without adequate incomes that makes it difficult for them as
48 well. For example, 11% of families with children below 18 have incomes below
49 the poverty line.

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

51 A. I have been asked to review the impacts of the RMP proposals on residential
52 customers in Utah. In particular, I will examine the rate design proposed for the

53 residential class, especially as it affects low-income residential customers and
54 those on fixed incomes.

55 I will first address the issue of designing rates for residential customers. I will
56 discuss the claims of “cost-causality” for setting rate charges and how pricing
57 objectives are utilized in designing rates. Next, I address the impact of various
58 rate proposals on customers that have low and/or fixed incomes. I will show that
59 low-income customers tend to have lower levels of energy consumption.

60 Additionally, households with seniors are smaller and as a result, will use lower
61 amounts of energy. I show that these low-usage customers are disproportionately
62 disadvantaged by higher customer charges.

63 Following that, I turn to RMP’s development of its proposal for setting the
64 residential customer charge. I show that their arguments are without merit and
65 recommend that the Commission maintain the current \$4.00 per month customer
66 charge. I also address RMP’s proposal to eliminate the minimum bill and
67 recommend that the current minimum bill of \$7.00 be maintained.

68 Lastly, I prepare and present residential rates with the considerations described in
69 my testimony. These rates are developed at the revenue level requested by RMP
70 to make a comparison between RMP’s proposal and mine more readily available.

71 This should not be construed to indicate agreement with RMP’s request for an
72 increase nor with RMP’s argument for such an increase. In the event that the
73 Commission awards RMP less than the full 100% of its request, I have also

74 prepared a residential rate at half of the revenue level requested to provide another
75 view of the likely impacts of the rate changes.

76 **RESIDENTIAL RATE DESIGN**

77 **Q. What objectives do you emphasize for residential rate design?**

78 A. This Commission has frequently been exposed to the eight criteria of a sound rate
79 structure listed by James C. Bonbright in his book, Principles of Public Utility
80 Rates, and I won't repeat them all here. These criteria have generally become part
81 of the "common knowledge" surrounding the setting of rates in a regulated
82 environment with such considerations as revenue stability, rate stability,
83 unambiguousness, avoidance of undue discrimination, simplicity, etc. These
84 objectives are not precise rules, but are generally based on the judgment of the
85 Commission. For example, avoidance of undue discrimination requires that a
86 judgment be made about what is "undue." Utah law has allowed implementation
87 of separate rates for low-income customers, determining that this is not undue
88 discrimination. As a result, Schedule 3 is only available to a limited segment of
89 low-income residential customers, because such rates have been determined to
90 serve the public interest.

91 I focus on several other criteria for designing residential rates. Economic theory
92 identifies prices as a way of signaling the cost of an item to customers who are
93 potential purchasers of that item so that they may make informed purchasing
94 decisions. The higher price of a luxury car compared to the price of an economy
95 car informs the potential customer about the cost of producing the two types of

96 car. The price signal is an important part of establishing rates so that utility
97 customers can make sound consumption decisions.

98 RMP witness Griffith refers to the customer charge as "... a clear price signal
99 reflecting costs that do not vary with usage." [Direct Testimony of William R.
100 Griffith, page 10, line 230] However, there is no purchasing decision the
101 customer can make in response to the prices set by the customer charge. If a
102 person chooses to become a customer, the customer charge must be paid and the
103 only way a customer can avoid the customer charge is by ceasing to be a customer
104 of the utility. But a household will choose to become a customer or not for
105 reasons other than the size of the customer charge. The customer charge is
106 irrelevant for that purpose and is effectively no price signal at all. In comparison,
107 the price per kWh does send a signal to customers about the cost of providing
108 energy and the customer can take action to change their usage if they deem the
109 price too great, or increase usage if the price for that additional usage is found to
110 be more beneficial than the cost.

111 One of the criteria on which I focus is discouraging wasteful use of energy. Part
112 of the calculus involves assessing the meaning of wasteful. In this case, I pay
113 attention to the marginal cost of electricity and recognize that there are social
114 costs that are not included. The inverted residential rate structure of Rocky
115 Mountain Power is a rate design mechanism that prices energy closer to its
116 marginal cost and has some impact of discouraging wasteful use of energy.
117 Customers face higher prices for increased usage than they pay for the initial level

118 of usage and are discouraged from consuming additional electricity. I also put
119 maintaining a low customer charge in this category. Keeping the customer charge
120 low discourages wasteful use of energy because once the Commission has set the
121 target revenue level for the rate class, a lower customer charge requires that
122 energy charges be higher. The only residential rate components that can be used
123 to recover revenue are the customer charge and energy charges. If revenue is
124 recovered through a higher customer charge, then the energy charge or charges
125 must be lower. All else equal, economic theory tells us that customers will
126 consume more electricity if the energy charges are lower.

127 A second criteria for my focus is provision of an affordable block of energy for
128 residential customers. This is especially important for low-income customers and
129 seniors on fixed incomes. Low-income customers use less electricity on average
130 than non-low-income customers. Seniors tend to live in smaller households than
131 average and as a consequence, tend to use lower amounts of electricity. Over
132 one-third of Utah residents over 65 years of age live alone. This is twice the
133 percentage of people under 65 living in a single-person household. Keeping the
134 customer charge low and keeping the initial block of energy at a low price helps
135 these customers afford the smaller amounts of electricity they need.

136 **LOW-INCOME CUSTOMERS**

137 **Q. What evidence is there that low-income households use less energy than**
138 **other households?**

139 A. First, the LIHEAP Home Energy Notebook, published in September 2011, reports
140 that low-income households in the U.S. use an average of about 80% as much
141 energy as non-low-income households. Households receiving LIHEAP (Low-
142 Income Home Energy Assistance Program, a federal program to assist low-
143 income households manage their energy burden) nationally used only about 75%
144 as much as non-low-income households.

145 Second, RMP provides standard residential service under Schedule 1 and offers
146 Schedule 3 to low-income households that qualify for funding under LIHEAP.
147 Usage levels for the average Schedule 3 Utah customer are lower than usage for
148 the average Schedule 1 Utah customer.

149 A third reason that low-income customers would be expected to have lower loads
150 is that with less income to spend, low-income families must spend less on the
151 goods and services they buy. While they spend a larger percentage of their
152 income on all sources of energy (natural gas, electricity, gasoline, etc.), it is likely
153 that many low-income households spend less on electricity than do other
154 households. With regard to seniors, because seniors often live in one or two-
155 person households, it should be expected that their average usage would be lower
156 than for a larger household.

157 **Q. How many low-income customers does RMP provide service to in Utah**
158 **under Schedule 3?**

159 A. In its current rate case in Utah, RMP projects 684,575 annual customers will take
160 service under Schedule 1 and 35,005 customers will be served under Schedule 3,

161 that is, about 5% of the RMP residential customers in Utah are on the low-income
162 rate.

163 **Q. What is the difference between the consumption levels of Schedule 1 and**
164 **Schedule 3 customers in Utah?**

165 A. According to RMP's rate case filing, Schedule 1 customers consume more kWh
166 than its Schedule 3 (low-income) customers. Seasonal rates in both schedules
167 provide data for the following calculations.

168 UTAH AVERAGE MONTHLY RESIDENTIAL CONSUMPTION

169 Table 1

	Summer	Winter
Schedule 1	838 kWh	723 kWh
Schedule 3 (Low-Income)	736 kWh	642 kWh

170 Source of data for calculations: Exhibit RMP____(WRG-3)

171 These values are based on the forecast numbers of bills and seasonal kWh used by
172 Mr. Griffith in developing his rates. The Schedule 3 summer consumption is
173 about 88% of the Schedule 1 consumption and its winter consumption is 89% of
174 Schedule 1 consumption.

175 **Q. What is the impact of RMP's increase in the customer charge on low-income**
176 **customers?**

177 A. The proposed increase in the residential customer charge from \$4.00 to \$10.00 is
178 an increase of 150%. For low-use customers, such as the average low-income
179 customer, the customer charge increase results in a larger increase in the total bill
180 for the average low-income customer. Notably, Mr. Griffith does not provide a
181 bill comparison showing the impact of the RMP rate proposals on a residential

182 customer's total bill. For example, a residential customer using 100 kWh per
183 month would have a bill increased from \$12.72 in summer to \$18.95, a 49%
184 increase. The winter bill would increase from \$13.02 to \$19.26, a 48% increase.
185 By comparison, a residential customer using 5,000 kWh would only see a 3.7%
186 increase in the total summer bill.

187 A complete bill comparison for the total charges is shown in AARP/SLCAP
188 Exhibit____(CEJ-1). It can be seen in AARP/SLCAP Exhibit____(CEJ-1) that the
189 largest users of electricity would receive the smallest increases in their bills, while
190 the smallest users would receive the largest increases. Because the average low-
191 income customer uses less electricity than the average non-low-income customer,
192 the average low-income customer would receive a larger increase than the
193 average non-low-income customer.

194 **Q. What other conclusions can you make about the relationship of low-usage**
195 **customers and costs?**

196 A. We can draw several conclusions. First, as I have just discussed, because RMP's
197 proposed residential monthly customer charge increase is a greater percentage
198 increase than the overall increase to the residential class, the customer charge
199 increase will have the greatest adverse impact on low-use customers.

200 A second conclusion I draw is that low-use customers have lower costs of
201 providing connection to the electric system than do average non-low-income
202 customers. Sizing of much of the conductor and other equipment is dependent on
203 the load on the feeder, substation, or other component of the distribution system.
204 Customers that have lower loads can be served either by using smaller-sized

205 components or by serving more customers from the same substation or feeder.
206 This means the cost of providing service to these smaller customers is less.
207 A third conclusion is that addition of low-usage customers contributes less to the
208 costs of load growth than does addition of average customers. That is, the
209 addition of a low-usage customer requires fewer facilities and adds less load to
210 the system than the addition of an average customer, meaning low-usage
211 customers are not driving the cost increases associated with load growth as much
212 as other customers.

213 **Q. Is the cost of service an important factor in setting utility rates?**

214 A. Yes, it is. Regulated utilities present their estimates of the costs of providing
215 service and the Commission ascertains whether the requested amount is the
216 allowable cost of providing service for the forecast test year. Those costs are
217 allocated to the various rate classes to estimate the cost of providing service to
218 each of the rate classes. Rates for each rate class are developed to provide the
219 utility an opportunity to recover the revenue that has been determined to be the
220 cost for the class.

221 However, attempting to set prices for a rate schedule based on the allocated
222 embedded costs is a misuse of those numbers. That was the approach used years
223 ago that led analysts to assert that additional consumption cost less than average
224 consumption. This approach resulted in declining block rates that encouraged
225 added consumption. Whether or not the approach was valid in the past, it is
226 certainly not a valid method of setting electric rates today. The relevant cost for

227 setting the price per kWh is the cost of producing additional kilowatt hours of
228 electricity. Other factors enter into setting the final price, but the average
229 allocated cost of producing a kWh is not the appropriate basis for setting energy
230 prices. Similarly, setting the customer charge equal to the fixed costs that have
231 been allocated in the embedded cost-of-service study is not the proper basis for
232 setting that charge.

233 **RESIDENTIAL CUSTOMER CHARGE**

234 **Q. What does Rocky Mountain Power propose as the residential customer**
235 **charge?**

236 A. The RMP Witness, Mr. William Griffith proposes that the current residential
237 customer charge be increased by \$6.00 from \$4.00 to \$10.00.

238 **Q. What is the basis for his recommendation?**

239 A. Mr. Griffith characterizes a list of allocated costs as being “fixed” and not
240 dependent on the amount of electricity the customer uses. He testifies that “These
241 costs do not vary with usage, and are therefore appropriate costs to include in
242 determining the level of the residential monthly customer charge.” [Direct
243 Testimony page 5, line 117]

244 **Q. Are all allocated costs identified as “fixed” by Mr. Griffith invariant with**
245 **usage?**

246 A. No. Some of the “fixed” costs are dependent on the peak demand of loads on
247 parts of the distribution system and there is a relationship between the peak
248 demand and the electricity consumption of the customers. On average, residential
249 customers with higher levels of consumption also have higher peak demands.
250 Consequently, customers using higher amounts of electricity impose a greater
251 amount of the fixed costs that have been allocated based on peak demands than do
252 customers with lower levels of consumption. Even if one restricted the list to
253 fixed costs that are invariant with usage, this would be an incorrect basis for
254 setting the customer charge.

255 **Q. Why would setting the customer charge equal to the fixed costs invariant**
256 **with usage be incorrect?**

257 A. The claim that fixed costs should be recovered through the monthly basic charge
258 is completely wrong for several reasons. Almost all of a utility's costs are fixed
259 in the short run and invariant with usage, even many fuel costs. Utilities typically
260 hedge their costs of fuel and enter into long-term contracts to reduce the risk of
261 unexpectedly high short-term fuel costs, turning these otherwise variable costs
262 into fixed costs. Applying the same logic to generation costs would mean that
263 most of the generation costs would be recovered through fixed demand charges
264 and almost no costs would be recovered through the energy charges.

265 Second, recovering more of the residential total revenue through the customer
266 charge requires that the energy charges be lower than they would otherwise be.
267 Lower-than-appropriate energy charges encourage wasteful consumption and
268 discourage efficient use of energy. The Commission should not agree to set rates
269 for its residential customers that will result in wasteful consumption or that
270 discourage efficient use of energy.

271 Third, allocated embedded fixed costs are but one way of viewing the costs of
272 providing service to a customer. It is also possible to rely on a marginal cost
273 study reconciled to the revenue target to calculate a customer cost. Another
274 approach would be to calculate the replacement costs of building a distribution
275 system and use those estimates to determine a customer cost. In fact, Mr. Paice
276 has allocated meter costs in his study based on "...the installed costs of new
277 metering equipment for different types of customers." [Direct Testimony of C.
278 Craig Paice, page 6 lines 127-128]. It is not the actual costs of meters that are
279 currently serving the residential customer class that was used as this "fixed" cost,
280 but an allocated portion of all meter costs.

281 Lastly, setting the customer charge to recover fixed demand-related costs is
282 inconsistent with charging customers based on the "causation" of the cost. In
283 considering distribution costs in RMP's cost allocation study, "...only meters and
284 services are considered customer-related, all other costs are considered demand-

285 related.” [Direct Testimony of C. Craig Paice, page 6, line 122-123 Emphasis
286 added]
287 In fact, the distribution costs that Mr. Paice has allocated as customer-related
288 account for \$3.63 of the fixed costs in Mr. Griffith’s “Customer Charge
289 Calculation” in RMP Exhibit___(WRG-2). Even including customer billing &
290 accounting and meter reading expense only brings the customer-related costs to
291 \$4.77. Because all other distribution costs are considered demand-related by
292 RMP and allocated to the classes based on class demand, they are not
293 appropriately recovered in the customer charge. They are a consequence of usage
294 and should be recovered through a usage charge. The remaining costs included
295 by Mr. Griffith in the “2012 Methodology” in Exhibit RMP___(WRG-2) are “All
296 Other Retail Function.” Some aspects of the retail function may not be dependent
297 on energy usage, but it is not obvious that these costs should be considered as
298 being customer-related and recovered in the customer charge either. Mr. Griffith
299 has given no basis on which the Commission can make that conclusion. These
300 costs are largely a function of being a utility

301 **Q. Aren’t most activities of a utility and the associated costs a consequence of**
302 **usage?**

303 A. Yes, most activities of a utility and the associated costs are a consequence of
304 usage by the customer or by the utility’s actions to measure and bill for that usage.
305 The whole purpose of an electric utility is to sell electricity to its customers. A
306 resident who didn’t use electricity would not become a customer of an electric
307 utility. If all customers used the same amount of electricity, metering and all
308 associated costs of billing for the differing levels of usage would be unnecessary.
309 So these costs are a result of differing levels of usage, and as such should be
310 recovered through usage charges.

311 **Q. Without a demand charge, how can demand-related costs be recovered from**
312 **residential customers?**

313 A. The recovery of demand-related costs from customers without a demand charge
314 becomes a pricing issue, not a cost issue. That is, these costs are not customer-

315 related costs to automatically be recovered through a customer charge. Pricing
316 considerations must play a role in determining the method of their recovery.
317 RMP has offered no pricing justification for increasing the customer charge for
318 residential customers.
319 For residential customers, only the customer charge and energy charge are
320 available from which to recover revenue. In establishing the energy and customer
321 charges, there should be a bias toward recovery of demand-related charges
322 through the other usage-related charge, i.e. the per kWh charges, because there is
323 a relationship between energy usage and demand usage, but no relationship
324 whatsoever between demand usage and any other aspect of being a customer.

325 **Q. Is there any reason that the customer charge should include any demand-**
326 **related costs?**

327 A. In general, no. Pricing considerations and adherence to other rate making
328 principles may require it at times, but not as a general rule.

329 **Q. What do you recommend for the residential customer charge?**

330 A. While I support maintaining the customer charge at a low level, the relatively
331 large increase in revenue requested by RMP will require large increases in the
332 residential charges. Absent an increase in the customer charge, the energy
333 charges would need to be increased by an even larger amount if there is no
334 increase in the customer charge. I support an increase in the customer charge no
335 greater than the percentage increase in the residential revenues. With a
336 percentage increase of 10.5% requested for the residential class, a \$0.43 increase
337 in the residential customer charge could be implemented, resulting in a \$4.43
338 residential customer charge. If the Commission awards a substantially lower
339 increase to RMP, I recommend that the residential customer charge be maintained
340 at \$4.00.

341 **MINIMUM BILL**

342 **Q. Do you agree with RMP witness Griffith's recommendation for eliminating**
343 **the minimum bill?**

344 A. No. The reasons Mr. Griffith gives for proposing to eliminate the minimum bill
345 are:
346 1. The appropriate minimum monthly bill is the fixed monthly customer charge
347 [Griffith Direct Testimony, page 10, line 219]
348 2. The minimum bill provides a poor price signal concerning fixed costs.
349 [Griffith Direct Testimony, page 10, line 222]
350 3. Most customers never pay a minimum bill. [Griffith Direct Testimony, page
351 10, line 225]
352 4. RMP has eliminated the minimum bill in its other jurisdictions. [Griffith
353 Direct Testimony, page 11, line 235]
354 None of the items on this list is justification for elimination of the minimum bill
355 in Utah residential rates. I shall take each in turn.
356 Asserting that the appropriate minimum bill is the customer charge is simply a
357 statement without support. Mr. Griffith has provided no justification for this
358 assertion. As far as the minimum bill providing a poor price signal, I have
359 already addressed the issue of price signals related to fixed costs in my discussion
360 of the customer charge. The same reasons I gave in that discussion about why
361 price signals for fixed charges are pointless because no action can reasonably be
362 taken in response also apply here. For his third point, I see no reason that the
363 number of customers paying the minimum bill has any bearing on whether or not
364 the minimum bill should be eliminated and RMP has given none. Lastly, while
365 RMP might prefer that its rates be similar in all jurisdictions, if the Utah Public
366 Service Commission finds reason to maintain the minimum bill in the residential
367 rate schedules for RMP, the decision should not be made based on decisions in
368 other jurisdictions.

369 **Q, What reason is there to maintain a minimum bill?**

370 A. The main reason for maintaining a minimum bill in RMP's residential rate
371 schedules in Utah is that the minimum bill provides some assurance that all
372 customers provide RMP with sufficient revenue to continue to provide service.
373 As I have previously mentioned, RMP is in the business of selling electricity. If

374 all the customers consumed little or no electricity, RMP would be in financial
375 difficulty. But RMP is not in this position. Most customers use sufficient
376 electricity to provide the company with adequate revenue to continue to function.
377 It is only a small number of customers that do not. Mr. Griffith points out that
378 less than 2% of residential customers pay the minimum bill. With the minimum
379 bill provision, these extremely-low-use customers pay a larger share of the
380 utility's costs than they would without the provision and slightly larger, but still
381 low-use customers aren't penalized, as they would be from increasing the
382 customer charge to \$10.00, as RMP proposes.

383 One solution to the problem of revenue recovery would be for RMP to simply
384 divide its projected costs by the number of customers and assess that large fixed
385 charge to all customers. RMP's proposal to increase the monthly customer charge
386 is a move in that direction. The RMP-proposed solution contravenes many of the
387 rate design objectives I described earlier – it fosters wasteful energy consumption
388 and diminishes the objective of providing an affordable block of electricity to
389 residential customers. Moreover, RMP employs a provision similar to the
390 minimum bill provision in many of its other rate schedules.

391 **Q. Please elaborate on other rate schedules that contain a provision similar to**
392 **the residential minimum bill.**

393 A. First, the seasonal provision in the residential schedule is essentially a minimum
394 annual bill. The seasonal service charge is \$84.00, which is 12 times the current
395 monthly minimum charge of \$7.00. RMP proposes to maintain this relationship
396 with a minimal seasonal charge of \$120.00, 12 times the proposed monthly charge
397 of \$10.00.

398 A second example is in RMP's Electric Service Regulation No. 12, Line
399 Extensions, where RMP establishes a number of requirements for customers to
400 obtain service. These are typically tied to the amount of revenue RMP expects to
401 receive from selling electricity to the customer. For example, the line extension
402 policy for customers less than 1,000 kW taking service at less than 46,000 volts,
403 provides that:

404 “The Company will grant Nonresidential Applicants requiring 1,000 kW or less
405 an Extension Allowance of up to sixteen times the estimated monthly revenue the
406 Applicant will pay the Company. The Applicant must advance the costs
407 exceeding the Extension Allowance prior to the start of construction.”

408 If the customer is expected to use enough electricity and provide sufficient
409 revenue to RMP, RMP will make an investment in facilities to provide service to
410 the customer. If the facilities that are required would cost more than the line
411 extension policy allows, the customer must pay the additional amount. This is
412 precisely the same mechanism as in the residential minimum bill – if the customer
413 does not uses sufficient electricity (and provide sufficient revenue), the amount of
414 the minimum bill must be paid.

415 **Q. What is your recommendation with regard to the minimum bill in the**
416 **residential rate schedules?**

417 A. I recommend that the current residential minimum bill amount of \$7.00 per month
418 be maintained. However, if the customer charge is increased, I recommend that
419 the Commission consider increasing the minimum bill.

420 **PROPOSED RESIDENTIAL RATE**

421 **Q. Have you prepared your proposed residential rate?**

422 A. Yes, I have prepared several residential rates for the Schedule 1 residential
423 customers. In the event the Commission does not award RMP the full amount of
424 its request, but something less, I have also prepared a residential rate at half the
425 RMP-proposed increase in revenue level to provide a better comparison with the
426 impact at a lower level of revenue increase. This is not a recommendation that
427 half the requested amount is the appropriate revenue level, nor is it the revenue
428 level I expect the Commission to approve. A rate schedule calculated at the full
429 amount requested would not present an accurate picture of the expected impact on
430 customers at a substantially lower revenue level than requested by RMP.

431 Additionally, even if the Commission were to award RMP exactly half the
432 requested amount, other changes would necessitate a reformulation of these rates.
433 For comparison with the RMP-proposed residential rate, I have also prepared a

434 schedule that would produce the full amount requested from the Schedule 1
435 customers.

436 **Q. Have you other recommendations regarding the residential rate schedules?**

437 A. Yes. I recommend that an inverted block structure be implemented in the
438 residential energy charges. The current rates are lower in the summer than winter
439 for the first 473 kWh. Only for higher levels of usage are customers charged
440 more in summer than in winter. Given that the system peak demand is in
441 summer, this seems inappropriate on several levels. I recommend that the initial
442 winter block be set at the same amount, 400 kWh, as the summer block.

443 **Q. Please describe the determination of the residential rate you have developed**
444 **for Schedule 1.**

445 I started with the billing determinants shown in RMP Exhibit____(WRG-3), page
446 7, which contains the Schedule 1 billing determinants. I calculated the revenue
447 that would be produced from the customer charge and estimated the increase in
448 energy charges that would be necessary to produce the revenue RMP requested
449 for this rate schedule. This enabled me to determine the amount of kWh in
450 minimum bills and number of customers who would receive minimum bills based
451 on the bill frequency data provided by RMP in response to Data Request AARP-
452 SLCAP 1.1. Then the billable kWh were determined and the prices set to recover
453 the appropriate revenue. These calculations result in charges shown in
454 AARP/SLCAP Exhibit____(CEJ-2) on page 1. I have prepared a similar
455 calculation for residential rates based on increasing residential rates by half as
456 much. These results are shown on page 2 of AARP/SLCAP Exhibit____(CEJ-2).

457 **Q. Have you prepared a proof-of-revenues sheet similar to RMP**
458 **Exhibit____(WRG-3)?**

459 Yes. AARP/SLCAP Exhibit____(CEJ-3) contains calculations similar to those in
460 RMP Exhibit____(WRG-3) that show the revenue produced by the rates that have
461 been developed. Page 1 of AARP/SLCAP Exhibit____(CEJ-3) shows the
462 calculations for the revenue requested by RMP and page 2 of that exhibit show
463 the calculations for 50% of the revenue increase.

464 **Q. Have you prepared a bill comparison exhibit that shows how the increases**
465 **affect different levels of residential usage?**

466 A. Yes. AARP/SLCAP Exhibit___(CEJ-4) presents a bill comparison of the
467 AARP/SLCAP-proposed rates with current rates. Page 1 of this exhibit show the
468 increase over current rates from implementation of my proposed rates over the
469 current rates. Note the relatively small increases in winter for customers whose
470 electricity consumption is mostly in the first 400 kWh block. Having set the price
471 of the initial 400 kWh winter block at the same lower level as the summer block
472 reduces the billing impact on these customers. Under the current and the
473 proposed RMP rates, which have no lower initial winter block, these customers
474 were paying much higher charges.

475 Page 2 of this exhibit shows a comparison of the AARP/SLCAP-proposed rates
476 produced at half the revenue increase requested by RMP for the Schedule 1
477 customers with the current rates.

478 Page 3 of this exhibit shows a comparison of the AARP/SLCAP-proposed rates
479 with the rates proposed by RMP. It will be noted that the comparison of RMP's
480 proposed rates with current rates (shown in Exhibit AAPR/SLCAP___(CEJ-1))
481 displayed how skewed the RMP rates were. That exhibit showed the largest
482 increases for the smallest customers and the smallest increases for the largest
483 customers. The comparison between the RMP-proposed rate and the
484 AARP/SLCAP-proposed rate shows that the AARP/SLCAP rates eliminate those
485 skewed impacts.

486 **Q. Does this conclude your prepared direct testimony?**

487 A. Yes.

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