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**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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Matter: of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations, Consisting of a General Rate Increase of Approximately \$161.2 Million Per Year, and for Approval of a New Large Load Surcharge	Docket No. 07-035-93
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**PRE-FILED DIRECT TESTIMONY OF RICHARD COLLINS**

**ON BEHALF OF  
WESTERN RESOURCE ADVOCATES  
AND UTAH CLEAN ENERGY**

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Western Resource Advocates and Utah Clean Energy hereby submit the Pre-filed Testimony of Richard Collins in this docket.

DATED this 21<sup>th</sup> day of July, 2008.

/s/ \_\_\_\_\_  
Representing Western Resource Advocates and  
Utah Clean Energy

1 **Q. Please state your name and occupation.**

2 A. My name is Richard S. Collins. I am an Associate Professor of Economics and Finance  
3 at Westminster College located at 1840 South 1300 East, Salt Lake City, UT 84108.

4 **Q. On whose behalf are you filing testimony in this Docket?**

5 A. Western Resource Advocates and Utah Clean Energy.

6 **Q. Are there other organizations that are supportive of this testimony?**

7 A. Yes. The concepts expressed in this testimony are supported by the Southwest Energy  
8 Efficiency Project, a public interest organization dedicated to advancing energy  
9 efficiency as a means of promoting both economic prosperity and environmental  
10 protection in the six states of Arizona, Colorado, New Mexico, Nevada, Utah, and  
11 Wyoming.

12 **Q. Have you submitted testimony to this Commission before?**

13 A. Yes. I submitted testimony in Docket Nos.03-035-14, 05-035-08, 05-035-09, 06-035-41  
14 and 06-035-76.

15 **Q. Do you have experience in utility regulatory matters?**

16 A. Yes. Prior to my position at Westminster College, I worked for the Public Service  
17 Commission of Utah for approximately 13 years.

18 **Q. Please describe some of your responsibilities at the Commission.**

19 A. I provided technical advice to the Commission on rate proceedings and a variety of other  
20 issues. I was responsible for tracking PacifiCorp's IRP planning process, avoided cost,  
21 demand-side management, cost of capital, and deregulation issues. In addition, I helped  
22 write orders and wrote or coauthored a series of technical reports on deregulation issues  
23 for the Commission and the legislature.

1 **SUMMARY OF TESTIMONY**

2 **Q: What is the purpose of your testimony in this docket?**

3 A: I advocate a fundamental change in Commission policy on rate design. The Company  
4 and its ratepayers are facing some unprecedented changes in the next few years as a result  
5 of rapid growth and the anticipated need for new, more expensive resources. Large rate  
6 increases are expected in the coming years. The Commission has a rare opportunity to  
7 mitigate the negative impacts of these large projected rate increases by adopting  
8 innovative rate designs. The new rates should send strong price signals to ratepayers to  
9 encourage end-use efficiency and reflect the true cost of higher energy costs and new  
10 resources. By adopting innovative rate design, the Commission can guide energy policy  
11 to help conserve resources and mitigate future rate cases. If structured and delivered  
12 effectively, new rate design will cause ratepayers to recognize that additional use of  
13 energy is costly and invoke a demand response that will produce slower rate increases in  
14 the future. An efficient rate design will encourage ratepayers to invest in more efficient  
15 appliances and to use electricity more efficiently. My proposal calls for an inverted rate  
16 design for residential customers with four separate tiers. The last tier will have a charge  
17 that is almost double the rate of the initial tier. I recommend no change to the current  
18 customer charge. In order to send a strong price signal the Commission should require  
19 that additional revenues approved in this docket are collected in volumetric energy  
20 charges rather than recurring fixed charges. I recommend that the Commission order the  
21 Division to initiate a task force to investigate a marginal cost, cost-of-service study that  
22 will provide the basis for future rate design. In addition, the task force should look at  
23 different methods of rate design that will encourage energy conservation and efficient

1 utilization of energy. In the interim, the Commission should start with sending signals  
2 now to ratepayers so they can start making adjustments to their electricity consumption.

3 **Q: Could you give a summary of your conclusions and recommendations?**

4 A: I recommend that the Commission reject the Company's proposed residential rate design  
5 because it would be difficult for ratepayers to understand and it will not be effective  
6 because it will not change the behavior of a large number of customers. In particular,  
7 the proposed Customer Load Charge (CLC) for residential ratepayers should be rejected  
8 because it is not cost-based and does not send a price signal to customers to conserve and  
9 use electricity more efficiently. The Company has not demonstrated that it will yield the  
10 stated objective of the charge which is to reduce summer loads. During the summer  
11 months I recommend four tiered rates for Schedule 1 that contains a more accentuated  
12 inverted structure using relative prices to send the appropriate price signals to elicit a  
13 strong demand response. For commercial rate structures, I do not make an explicit  
14 recommendation. However, the Commission should implement rates that encourage  
15 commercial customers to reduce their volumetric use and more efficiently utilize energy  
16 so that fewer costs are placed on the system. Rates that reduce use at peak times are  
17 strongly encouraged. As for industrial rate design, another witness, Mike Mendelsohn,  
18 will present Western Resource Advocates' position.

19 I recommend that the Commission should immediately conduct a study of rate  
20 structures that reward conservation and energy efficiency for future rate cases. The  
21 Commission should order the Division to organize a task force to investigate cost-of-  
22 service based on marginal cost and rate designs such as time of use pricing, critical peak  
23 pricing, real time pricing and inverted block rates. The first task should determine the

1 proper way to conduct a marginal cost, cost-of-service study. The second task will  
2 investigate specific rate designs that will produce efficient pricing that reflects both the  
3 cost the customers place on the system and the need to send strong price signals to  
4 encourage conservation and end-use energy efficiency.

5  
6 **BACKGROUND**

7 **Q: What are the fundamental considerations that the Commission should take into**  
8 **account when setting rate design?**

9 **A:** According to James Bonbright, a utility ratemaking expert who authored Principles of  
10 Public Utility Rates<sup>1</sup>the criteria for ratemaking are listed in the table below in relative  
11 order of importance.

12

<b>Table 1: Bonbright's Criteria for Ratemaking</b>
1. Does the rate provide adequate revenue recovery to the utility?
2. Does the rate promote fairness in cost allocation (equity between customer classes)?
3. Does the rate promote efficient resource use?
4. Is the rate practical to implement (understanding, acceptance)?
5. Is the rate easy to interpret (noncontroversial)?
6. Does the rate provide revenue stability for the utility?
7. Does the rate provide bill stability for customers?
8. Does the rate avoid undue discrimination among customers?

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<sup>1</sup> James C. Bonbright, Albert L. Danielson and David R. Kamerschen, with assistance of John B. Legler, Principles of Public Utility Rates, 2<sup>nd</sup> edition. (Arlington, VA: Public Utilities Reports, Inc. March 1988)

1 Bonbright's criteria for rate design are as relevant today as they were when he first wrote  
2 them. The Commission should review the criteria for ratemaking and reconsider its  
3 priorities and goals. Efficient use of resources should become a priority at this time.  
4 There will be times when there are conflicts between the ratemaking criteria and in such  
5 instances the Commission must choose which criterion takes priority. I agree with  
6 Bonbright that the number one criterion for ratemaking is to insure adequate revenue  
7 recovery for the utility. The second criterion is also important to insure fairness in cost  
8 allocation between customer classes. Bonbright's third criterion cites efficient resource  
9 use which is to say pricing should reflect economic efficiency. Economic theory tells us  
10 that allocative efficiency occurs when prices equal marginal costs. The use of increasing  
11 tier rates is one way to recognize that marginal cost of electricity production is now  
12 higher than average cost of electricity. Greater use of electricity will lead to higher rates  
13 for all.

14 **Q: Why should the Commission consider instituting a major philosophical change in**  
15 **rate design at this time?**

16 **A:** The rapid growth of PacifiCorp's system is driving the Company to apply for historic rate  
17 increases. It is a trend that does not appear to be slowing. This will necessitate that more  
18 generation resources come on line at higher costs than current embedded rates. Indeed,  
19 the world is witnessing a rapid rise in energy costs that is not forecasted to abate in the  
20 near future. The quickest way for policy makers to address this situation is to promote  
21 the most efficient utilization of the energy sources that we have now. A well functioning  
22 market system has proved to be the most efficient mechanism to allocate scarce resources  
23 ever developed. It is relative prices that send the signal to producers to increase

1 production during times of scarcity and changes in relative prices lead consumers to  
2 adjust their consumption patterns. Thus, the most effective way to encourage people to  
3 change their consumption patterns is to change prices. Witness what is happening in the  
4 automobile market in response to rising gasoline prices.

5 In the electric utility industry, a competitive market at the retail level does not exist for  
6 consumers. Thus, it is the responsibility of the Public Service Commission to provide  
7 guidance to the Company and its customers, and to set prices that will produce efficient  
8 results. Rate design is generally regarded as merely a mechanism for pricing energy to  
9 the customer and correspondingly for collecting the revenue due to the utility. However,  
10 in today's environment the Commission should put greater emphasis on efficient pricing  
11 to help lower costs in the future. The Commission must keep in mind the state of the  
12 electricity market in Utah; we are short of generation and face rising costs and rates to  
13 meet the growing demand. Reducing demand will mitigate the need for rate increases  
14 and should be a primary goal of the Commission when setting rates. When costs for new  
15 resources are rapidly rising then prices must be designed to reflect that fact. Efficient  
16 pricing of electricity should only be sacrificed when there is conflict with revenue  
17 recovery.

18  
19 **RESIDENTIAL RATE DESIGN**

20 **Q: Could you provide a critique of the Company's recommendations for rate design for**  
21 **residential customers? Please begin with your thoughts on the customer charge.**

22 **A:** The Company's recommends raising the customer charge from \$2.00 to \$4.00. This  
23 represents a 100 percent increase in this rate element and will violate criteria No. 7 and

1 No. 8 which deals with rate stability for customers and undue discrimination. This new  
2 proposed customer charge will result in a dramatic percentage increase in the overall  
3 costs for low users. Customers using less than 100 kWh per month will see their bill  
4 increase by 26 percent, while customers that use less than 200 kWh will see a 17.7  
5 percent increase. Ratepayers who use 400 kWh or less per month and are in the first  
6 tiered rate class will see their bills increase by 16.3 percent as measured by a weighted  
7 average. This is considerably more than ratepayers in the second tier (400 kWh to  
8 1000kWh) who will see a less than 5 percent increase in bills during the summer months  
9 under the Company's proposal. This disparity results mainly from the impact of the  
10 customer charge. It unduly burdens the low-usage customers, precisely the group of  
11 customers that should be rewarded for their frugal use of electricity. As I explain later in  
12 my testimony, the low usage customers are not responsible for the large increase in usage  
13 and the corresponding costs it is placing on the system. For equity reasons the  
14 Commission should not raise the customer charge at this time.

15 **Q: Are there other reasons you object to the proposed increase in the Customer**  
16 **charge?**

17 **A:** Yes, when I worked at the Commission, one of my responsibilities was to occasionally  
18 take complaint calls. Complaints about the customer charge was one of the biggest issues  
19 that the Commission staff received. People do not understand the reason for the charge  
20 and even when an explanation was provided they still thought it was outrageous. An  
21 increase in the customer charge will surely receive the same reaction. But more  
22 fundamentally, I believe that the Commission should raise rates for the energy  
23 component of costs especially at peak times. The goal of such a regulatory change would



1 be to produce a demand response which will lower the overall costs of the electric  
2 system.

3 **Q: Can you explain your opposition to the proposed Customer Load Charge?**

4 A: Yes, this proposal by the Company is flawed in several respects. The Company proposes  
5 a “usage based” Customer Load Charge that is triggered when a residential customer’s  
6 monthly usage in the May through September bill months exceeds 1000 kWh more than  
7 once. That is, if the customer uses more than 1000 kWh for two months in the summer  
8 pricing period, the household will be subject to an additional \$6 monthly charge for the  
9 entire year. This will allow the Company to collect an additional \$72 from this  
10 household. The Company claims that this will send a strong pricing signal to customers  
11 for the entire year and will bring about a change in behavior for the following summer  
12 pricing period. A particularly troubling aspect of the proposal is the fact that the  
13 Company wants to invoke this charge retroactively, before customers are even aware that  
14 their summer usage will result in an added fixed charge to their bill. In his direct  
15 testimony, William Griffith in reference to his recommendation to increase the customer  
16 charge states that “In today’s environment where we encourage reductions in usage  
17 where possible and attempt to achieve efficient usage in all circumstance, it is no longer  
18 appropriate to achieve the recovery of fixed costs through the variable energy  
19 components of rates.” Yet, he appears to be comfortable with collecting a variable  
20 energy charge in a fixed customer charge. To encourage reductions in energy usage it  
21 would be more effective for the Company to price the actual usage of energy and not  
22 place a fixed charge that the customer can not escape for an entire year. The Company is  
23 depending on ratepayers to remember a full year later that in order to avoid this CLC they

1 must keep energy usage below 1000 kWh in the summer months.

2 Another flaw of this proposal is that it will only affect the behavior of a fraction of  
3 ratepayers. I estimate that less than 25 percent of Schedule No.1 customers are within the  
4 range that many would be concerned about incurring the CLC. To determine this  
5 fraction, I assumed that the range of usage eligible for this charge would be between 900  
6 kWh and 1400 kWh. Thus a full 75 percent of the customers would not have any  
7 economic reason to change their behavior. In addition, the customers within the range  
8 only have incentives to drop their usage below 1000 kWh. So in essence, the Company's  
9 proposal would only affect a small fraction of total usage. Further, customers in this  
10 range would have to reduce their usage by 9 percent to 28 percent to avoid the charge, yet  
11 the charge will only increase their bills by approximately 7 percent. This implies a price  
12 elasticity of demand that is greater than one, a number that is not supported by the  
13 economic research. In layman's terms, the CLC will not create the necessary incentive to  
14 avoid the charge. A much more effective method would be to increase the actual cost of  
15 energy to consumers at higher usage levels; the higher bills will bring a more effective  
16 response to high energy use.

17 **Q: What justification does the Company provide for the CLC?**

18 **A:** The Company references a telephone interview study conducted with 405 randomly  
19 selected customers. The Company cites "major "findings of the survey to draw some  
20 questionable conclusions. The major findings cited include that 67 percent do not know  
21 when their billing cycle begins or ends and 86 percent did not know on average how  
22 many kWh they use in a typical month. The Company concludes that customers do not

1 understand their bill and thus tiered rates are ineffective in changing behavior. These  
2 conclusions are contradicted by other findings in the study. For example, when asked a  
3 question about the ease of understanding their electric rates, 71 percent answered 7 or  
4 higher on a 10 point scale with 10 representing the highest or easiest to understand. 58  
5 percent of respondents said that tiered rates encourage less energy use and 59 percent  
6 thought that tiered rates were fair. Interestingly, in the same poll, fully 75 percent of  
7 respondents reported that they were unaware that they were being charged seasonal tiered  
8 rates. Additionally, 41 percent said they reviewed the detailed items on their bill  
9 including how many kilowatt-hours of electricity they used each month.

10 It appears that consumers do understand their bills but that much more education is  
11 needed about the seasonal rates and the tiered structure. The Company has not yet done  
12 an adequate job of informing their customers of the tiered rate system, how it functions,  
13 and the benefits it brings to customers and to the electricity system as a whole. I was  
14 only able to find two instances of any information given to ratepayers that explains  
15 inverted block rates. In the billing stuffer, *Voices* in May June of 2004, seven lines were  
16 used to explain the summer tiered rate schedule with no thorough explanation for the  
17 rationale of tiered rates except to “balance energy supply”. In addition, the Company  
18 issues a once a year Consumer Information stuffer with a very minor section on price  
19 information on it. None of the information delivered to customers appeared to be regular,  
20 or substantive enough to adequately explain tiered rates to customers. I recommend that  
21 the Commission order the Company to provide more information about its rate design  
22 and rationale for their structure, and to conduct a third party analysis of its marketing and  
23 education of its energy efficiency programs.

1 **Q: What is your opinion about the Company's proposed elimination of the third rate**  
2 **tier?**

3 **A:** I believe that the elimination of a three tiered rate is a mistake. I recommend that the  
4 Commission should do the exact opposite and expand the number of tiers to four. One of  
5 the main reasons that the Company did not see a decrease in usage in the third tier is that  
6 the price differential was simply not big enough to change behavior. This is analogous to  
7 consumer's response to rising gasoline prices recently. At \$3.00 a gallon there was not  
8 much change in consumers' behavior in terms of decreased usage of gasoline or a change  
9 in the composition of automobiles that they purchased, but at \$4.00 consumers have both  
10 decreased the consumption of gas and have begun to change the type of automobiles that  
11 they drive. The Commission should require a significant price signal to heavy residential  
12 users of electricity to change their behavior both in terms of decreased and more efficient  
13 electricity usage, but also in terms of purchasing more efficient appliances. The  
14 Company's past differential between the second and third tiers was only approximately  
15 1.5 cents; this obviously was not a strong enough price signal to decrease usage. I do not  
16 believe that the Company's proposed differential of 2.8 cents per kWh is enough to  
17 change behavior.

18 **Q: What do you propose for a rate design that will efficiently price electricity and help**  
19 **keep rates down in the future?**

20 **A:** I propose increasing the number of tiers from three to four and increasing the rate  
21 differentials between the 2<sup>nd</sup> and 3<sup>rd</sup> and the 3<sup>rd</sup> and 4<sup>th</sup> tiers to send a strong price signal  
22 to these customers to conserve. I recommend that the first tier receive little or no rate

1 increase, especially if the customer charge is increased. For the second tier which ranges  
 2 from 401 to 1000 kWh and I recommend a rate increase equal to the Commission decided  
 3 revenue requirement increase for the residential class. For the third tier ranging from  
 4 1000 to 2000 kWh I recommend an approximate 50 percent increase in rates compared to  
 5 tier two. The fourth tier is for consumption greater than 2000 kWh. This rate will be  
 6 approximately 17 percent higher than the previous third tier. The suggested rates and  
 7 tiers are shown in the tables below. The first shows existing rates and the second shows  
 8 my proposal.

9

<b>Table 2: Existing Tiered Rates</b>		
<b>TIER</b>	<b>SPREAD</b>	<b>COST (May through September)</b>
1 <sup>st</sup> tier	First 400 kWh/mo	(\$0.075389/kWh)
2 <sup>nd</sup> tier	From 401 kWh to 1,000 kWh/mo	(\$0.085562/kWh - \$0.075389/kWh for first 400)
3 <sup>rd</sup> tier	Over 1,000 kWh/mo	(\$0.100779/kWh – first two tiers remain)

10

<b>Table 3: Proposed Tiered Rate Structure</b>		
<b>TIER</b>	<b>SPREAD</b>	<b>COST (May through September)</b>
1 <sup>st</sup> tier	First 400 kWh/mo	(\$0.76284/kWh)
2 <sup>nd</sup> tier	From 401 kWh to 1000 kWh/mo	(\$0.86578/kWh - \$0.76284/kWh for first 400)
3 <sup>rd</sup> tier	From 1001 kWh to 2000 kWh/mo	(\$0.129823/kWh – first two tiers remain)
4 <sup>th</sup> tier	Above 2000 kWh	(\$0.151781/kWh – first t three tiers remain)

11  
12  
13

**Q: Could you explain why you divided the tiers in such a fashion?**

1 **A:** Using data from data request AARP 2.2 (Sch 1&2&3\_Jul06-Jun07), I was able to obtain  
2 billing and usage figures by 100 kWh segment for July 2006 to June 2007. I looked at  
3 both the relative number of customers in each 100 kWh segment and the relative usage of  
4 kWh in each segment. The tiers were chosen to stay consistent with the previous tariff  
5 tiers, but I added a fourth tier above 2000 kWh. The tiers are divided in round numbers so  
6 that customers can remember the demarcation. A flat rate is recommended for the winter  
7 months.

8 The table below shows the percent of customers in each tier and the  
9 corresponding percentage of kWh usage. For the summer season, the first tier (0-400  
10 kWh) contains just less than 25 percent of the customers but accounts for only 6.75  
11 percent of the usage for all of Schedule 1. It is obvious that these customers are not  
12 putting much pressure on system costs. The second tier (401-1000 kWh) contains just  
13 over 45 percent of customers and accounts for 36 percent of the usage. The 3<sup>rd</sup> tier (1001  
14 to 2000) contains 24 percent of the customers but uses 39 percent of the usage. And the  
15 last tier greater than 2000 kWh contains a 5.5 percent of the customers but uses over 18  
16 percent of the electricity during the summer months. Thus the consumers in the top two  
17 tiers are using approximately 58 percent of the usage during the summer months.

**Table 4: Average Summer Percentage of Bills and Usage (Schedule 1, July 2006 - June 2007)**

<b>Tier</b>	<b>% Bills</b>	<b>% kWh</b>
<400	24.8%	6.7%
401 - 1,000	45.6%	36.1%
1,001 - 2,000	24.0%	38.8%
>2,000	5.6%	18.3%

18

1 **Q: Can you explain why you have chosen such a large rate increases for customers in**  
2 **the last two rate tiers and a smaller one for the lower tier?**

3 **A:** The rate differential between the 2<sup>nd</sup> and 3<sup>th</sup> tier is an almost a 50 percent increase and the  
4 differential between the 3<sup>rd</sup> and 4<sup>th</sup> tiers is another 17 percent increase. I have  
5 recommended a higher rate increase in these tiers for two reasons. First, is for equity  
6 reasons, rates for essential energy usage should be kept low. There is a certain amount of  
7 electricity that is needed to function in our society and it should be kept affordable, for  
8 example, refrigeration, basic lighting and other essential services. Higher levels of usage  
9 by a household represent more of a luxury than necessity and as such should be more  
10 sensitive to changes in price. In addition, it is the use of air conditioning that is placing  
11 some of the largest stresses on the system and is forcing the Company to acquire new  
12 resources to meet this growing peak load. Company Witness Griffith stated in testimony  
13 that load in the third tier had grown by 83 percent since the inverted rates were instituted  
14 in 2004.<sup>2</sup> It is evident that these high use customers as placing large demands on the  
15 system. Customers that are placing higher costs on the system should be paying higher  
16 prices that reflect the higher costs. I believe a strong price signal directly correlated to  
17 their actual energy use will elicit a strong demand response. If energy use can be reduced  
18 in these higher brackets in the future, this will mitigate the need to acquire the higher cost  
19 resources, thus, mitigating the need for future rate increases. As noted above, the  
20 Company's proposed CLC would not affect the behavior of a large portion of the larger  
21 use customers.

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2. This number is different than his actual testimony because it has been updated to reflect actual as opposed to forecasted usage. See Company response to UCE data request 2.1.

1 **Q: Have you calculated the revenue that would be collected under your proposal?**

2 **A:** Yes, I have. Using the information and model provided by the Company's response to  
3 CCS data request 38.4, I adapted the model to determine the pricing for each tier based  
4 on my assumptions about the percentage rate spread between tiers. I modeled a 13.5  
5 percent increase above tier 1 for tier 2, a 70 percent increase above tier one for tier 3 and  
6 a 100 percent increase for tier 4 above tier 1. Given these assumptions, the model  
7 determines the rates for each tier which will allow for full revenue requirement recovery.  
8 The actual change in rates will depend on what the Commission decides on revenue  
9 requirement phase of the case. This can be done in a more precise manner after the  
10 Commission decides on the magnitude of the rate increase. This can be seen in exhibit 2  
11 attached to this testimony. The spreadsheet model is attached to my electronic  
12 submission.

13 **Q: What are the impacts on the different customers segments with your rate proposal?**

14 **A:** In exhibit 1 attached to this testimony, I show the percentage change in bills by 100 kWh  
15 usage segment. For example, in the summer, customers in the 100 to 900 kWh usage  
16 segments will incur approximately a 1 percent increase in their actual bills. Customers  
17 between 1000 and 1500 kWh use per summer month will incur bill increases that range  
18 from 4.1 to 11.6 percent. While higher use customers above 2000 will incur a 16.3  
19 percent increase and the customers above 5000 kWh will incur a 37.6 percent increase.

20 **Q: Why not spread out the rate increase more equally?**

21 **A:** There are a number of reasons to place higher rate increases on the high use customers.  
22 First, is cost causation, it is the high energy consumption of air conditioning that is  
23 driving much of the increase in demand. Thus, the customers that are increasing use



1 should pay their proportion of the costs. Second, price increases must be substantial in  
2 order to get a demand response and the high end users have more opportunity to cut  
3 usage and purchase energy efficient appliances. These prices at the high end of the usage  
4 scale will get the biggest bang for the buck because electricity use at these higher levels is  
5 regarded as a luxury not a necessity. It is a well known economic tenet that luxury goods  
6 have a higher demand response than necessities. It will also send a message to new home  
7 buyers to purchase homes that have high energy ratings.

8 **Q: Is there anyway the Commission could mitigate the increase in bills to the higher use**  
9 **customers?**

10 **A:** One option would be for the Commission to investigate the feasibility of allowing  
11 customers to escape the highest tier if they participate in Company-sponsored energy  
12 efficiency or load control programs. However, I believe that this should be investigated  
13 by the rate design task force with recommendations for implementation made for the next  
14 rate case.

15 **Q: One of the issues with a steeply inverted rate schedule is the possibility that the**  
16 **Company may be at risk of collecting its full revenue requirement, as customers**  
17 **decrease usage, what do you suggest as a remedy to this issue?**

18 **A:** I propose that the Commission assume that there will be a demand response to the higher  
19 prices and explicitly build the reduction in consumption into the calculation of rates. A  
20 recent study on the elasticity of demand for electricity based on results of many different  
21 studies concludes that the short run elasticity coefficient is  $-.35$ , so a 10 percent increase

1 in prices would lead to a 3.5 percent decrease in consumption.<sup>3</sup> So a 40 percent increase  
2 in prices will lead to a about a 14 percent decrease in usage for the customers in the  
3 highest usage segments.

4 **Q: What are your proposals for the other rate classes?**

5 **A:** I do not make explicit recommendations for other rate classes except that the  
6 Commission should convene a task force to study the issue for future rate cases.

7 **Q: Could you summarize your recommendations?**

8 **A:** I recommend that the Commission change is philosophy on rate design and use rate  
9 design to meet goals that will benefit all ratepayers in the long run. Given the large  
10 growth in demand and the necessity to build new more expensive generation plant, the  
11 Commission should use its pricing powers to send a strong message to ratepayers that it  
12 is in their self interest to utilize electricity more efficiently. I recommend that the  
13 Commission reject the Company's rate design proposal and adopt the proposal developed  
14 in my testimony. The Company proposed CLC should be rejected because it will not be  
15 effective in curtailing use. The Commission should keep the customer charge at it  
16 current level and recover additional revenues through volumetric charges. The  
17 Commission should implement a steeply inverted tiered rate with the highest two tiers  
18 receiving the bulk of the rate increase. This will send a clear signal to ratepayers that it is  
19 their financial interest to invest in energy efficient appliances and cut back on use where

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3 Turning on the Lights: A Meta-Analysis of Residential Electricity Demand Elasticities, Journal of Agricultural and Applied Economics, Apr 2004 by Espey, James A, Espey, Molly

1           appropriate. The Company's own IRP has identified energy efficiency as one of its most  
2           cost-effective resources. The Commission can help in the acquisition of this resource  
3           with appropriate pricing. In addition, the Commission should order the Company to  
4           better educated customers about the tiered rate structure and ways customers can  
5           minimize their consumption in higher rate tiers. Finally, the Commission should order the  
6           Division to convene a task force of stakeholders to investigate the proper method for  
7           cost-of-service study based on marginal costs and innovative rate designs that will  
8           encourage the efficient utilization of electricity.

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was sent by United States mail, postage prepaid, or by email this 21 day of, July 2008, to the following:

Michael Ginsberg  
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