

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain)	Docket N. 07-035-93
Power for Authority to Increase its Retail Electric)	
Utility Service Rates in Utah and Approval of its)	
Proposed Electric Service Regulations, Consisting of)	Division of Public Utilities
a General Rate Increase of Approximately 161.2)	
Million per Year, and for Approval of a New Large)	
Load Surcharge.)	DPU Exhibit No. 9.0SR

**Sur-rebuttal Testimony of
Abdinasir M. Abdulle, Ph. D.**

COST OF SERVICE AND RATE DESIGN

**For the Division of Public Utilities
Department of Commerce
State of Utah**

September 24, 2008

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

2 A. My name is Abdinasir M. Abdulle; my business address is Utah Division of
3 Public Utilities, 160 East 300 South, Salt Lake City, Utah 84114-6751.

4 **Q. Are you the same Abdinasir M. Abdulle that submitted Direct and Rebuttal**
5 **Testimonies for the Division in this Docket (07-035-93)?**

6 A. Yes.

7 **Q. What is the purpose of your sur-rebuttal testimony?**

8 A. The purpose of my sur-rebuttal testimony is to respond to certain rebuttal
9 testimonies that rebutted my rate spread and rate design proposals in my direct
10 testimony. In particular, I will respond to the rebuttal testimonies of the following
11 witnesses:

- 12 1. Kevin Higgins – Utah Association of Energy Users (UAE)
- 13 2. Maurice Brubaker – Utah Industrial Energy Consumers (UIEC)

14 I will also make some corrections to one of my rebuttal exhibits (DPU Exhibit 9.5
15 R).

16 **Q. In previous testimony you indicated that if the Commission found merit in**
17 **the criticisms raised by other parties then an equal spread may be reasonable**
18 **in this case. Does the Division have any reason to change its position at this**
19 **time?**

20 A. In general, no. Other parties have raised concerns about the accuracy of the
21 Company's cost of service study. In particular, Committee witness Mr. Chernick
22 questions the reliability of the irrigation load study. Evidence presented by Mr.
23 Chernick raises doubts of whether the irrigation load data is representative of the
24 class's actual loads. Unfortunately, the Division believes the Company's
25 response in rebuttal testimony is less than convincing. However, the Division
26 recognizes that obtaining more accurate data for the irrigation class may be

27 problematic. In the past, because of the problem of collecting more accurate data,
28 the Division has supported giving this class the jurisdictional average increase.
29 Thus, as the Division stated in rebuttal testimony, if the Commission finds Mr.
30 Chernick's evidence convincing, awarding this class the jurisdictional average
31 increase is likely reasonable.

32 **Q. Does the Division have any other concerns with awarding the irrigation class**
33 **the jurisdictional average increase?**

34 A. Yes. In the past, at least from the Division's point of view, the question has not
35 been whether the class was under priced, but by how much was it under priced. If
36 this premise is valid then, as other rate cases played out and Schedule 10 was
37 given jurisdictional average price increases, the disparity between price and costs
38 have compounded. The longer we postpone any movement in rates for this class,
39 the larger will be the gap that will need to be made up once more accurate sample
40 data are available. Therefore, the Division recommends that whatever the
41 outcome of this case, these issues be resolved as soon as possible.

42 **Q. UIEC witness Mr. Brubaker similarly criticizes the sample data for, among**
43 **others, Schedule 6 . Do you have any comments about these criticisms?**

44 A. Unlike Mr. Chernick, Mr. Brubaker offers no statistical analysis to support his
45 claims. The Company's response in rebuttal testimony essentially argues that
46 simply because the samples were designed a number of years ago, does not
47 necessarily mean that the current samples are unrepresentative of the population,
48 especially since new customers have been added to the sample since the original
49 set of customers was selected. While the Division agrees in general with the

50 Company's argument, it does not prove that the current load data are
51 representative of the underlying population loads. Given neither Mr. Brubaker
52 nor the Company have offered convincing proof we reiterate our comments from
53 rebuttal testimony: if the Commission is convinced that Mr. Brubaker's
54 arguments have merit, then an equal percentage spread of the increased revenue
55 requirement is likely reasonable.

56 **Q. In its rebuttal testimony, the Division updated its recommendations on rate**
57 **design to reflect the Commission's order on revenue requirement in this case.**
58 **Do you have any comments with regard to rate design?**

59 A. Yes. In its rate design proposals, the Division has attempted to balance the
60 interests of various parties while promoting other policy goals, especially
61 conservation. While the Division still supports this approach, it recognizes that
62 given the relatively small revenue requirement increase awarded by the
63 Commission, movement toward these goals may be difficult in this case. For
64 example, it may be difficult in this case to design rates in a manner that will send
65 strong enough price signals to rate payers beyond that which is already built into
66 rates.

67 **Q. Please summarize the comments made about your proposed rate spread by**
68 **the above listed witnesses.**

69 A. Both Mr. Higgins and Mr. Brubaker pointed out that my proposed rate spread was
70 based on the Company's earlier proposed revenue increase of 7.5 percent, and I
71 did not explain how my proposed rate spread will be adjusted to reflect a lower
72 overall increase. In addition, both witnesses indicated that the class cost of
73 service study performed by the Company that I relied on for my recommendation
74 is flawed and should not be used as the basis for a rate spread.

75 **Q. Can you comment on how your rate spread proposal is adjusted to reflect the**
76 **lower overall increase ordered by the Commission?**

77 A. I agree with both witnesses' assessment that the rate spread I proposed in my
78 direct testimony was based on the Company's earlier proposed revenue increase
79 of 7.5 percent. I updated this proposed rate spread in my rebuttal testimony to
80 reflect the \$36.164 million rate increase adopted by the Commission in its erratum
81 order dated August 21, 2008¹. In general, the class cost of service study indicated
82 that Schedules 9, 23, and 10 were earning less than their respective cost of service
83 and should therefore receive a rate increase higher than the jurisdictional average.
84 To do so, the Division recognized the need to balance the cost causation and
85 gradualism principles of rate making. Therefore, the Division decided to
86 gradually increase the revenues from these schedules to levels that match their
87 respective cost of service. For Schedules 9 and 23, the Division recommends a
88 rate increase equal to the jurisdictional average plus half of the gap between the
89 jurisdictional average and the increase suggested by the class cost of service study
90 for respective schedule. This will take the revenue from these schedules up to
91 their respective cost of service within two rate cases. Similarly, for Schedule 10,
92 the Division proposes an increase equal to the jurisdictional average plus one third
93 of the gap between the jurisdictional average and the increase suggested by the
94 class cost of service study for this schedule. This will take the revenue from
95 Schedule 10 up to its cost of service within three rate cases.

96 The difference between the additional revenues that will be collected from
97 Schedules 9 and 23 and the reduction in revenues from Schedule 10 will be spread
98 evenly to those rate schedules that were either over earning or earning revenues
99 that cover their cost of service (Schedules 1, 6, 8, and 25). Therefore, Schedules
100 1, 6, 8, and 25 will receive an increase equal to the jurisdictional average less their
101 share of excess revenue.

102 **Q. Do you have any problems with the rate spread proposals of Mr. Higgins and**
103 **Mr. Brubaker?**

¹ Abdulle Rebuttal, Pages 20-22, Lines 423-456.

104 A. Mr. Higgins continues to support the Company's proposal but if the Commission
105 chooses not to adopt the Company's proposal, he proposes that the Commission
106 adopt the uniform percentage increases proposed by CCS and UIEC. The
107 Company proposed an increase of two times the overall average for Schedule 10,
108 an increase less than the overall average for Schedule 6, and uniform percentage
109 increases for the rest of tariff schedules.

110 The Company's class cost of service indicated that the ROR index for Schedules
111 9, 10, and 23 were 0.84, 0.17, and 0.84, respectively. All of these ROR indexes
112 are outside the Commission adopted ROR band (0.9 to 1.1) implying that these
113 schedules should receive a percent increase greater than the overall average. The
114 Company's proposal that Mr. Higgins supports increases Schedule 10's rate by
115 more than the jurisdictional average, and increases rates for Schedules 9 and 23 at
116 the jurisdictional average. It does not seem that this proposal treats these three
117 customer classes equally. The Company did not provide any explanation as to
118 why Schedules 9 and 23 should receive a percent increase equal to the
119 jurisdictional average.

120 The basis for a rate spread is the results of a class cost of service study. That is,
121 the rate increase should be spread among the different rate schedules based on the
122 results of the cost of service study that determines the cost responsibility of each
123 class. There are occasions when the results of the cost of service study may not
124 be followed for rate spread. For example, when the cost of service results lead to
125 increases that would violate the principle of gradualism. It is ironic that the
126 Company is claiming that its cost of service study was conducted properly and
127 should inform both the rate spread and rate design while proposing that Schedules
128 9 and 23 receive the overall average increase. This is not what the results of the
129 cost of service study suggested or could be justified on the principle of gradualism
130 or any other applicable principle. In addition, the Company failed to explain why
131 they are proposing different treatments between these two schedules and Schedule
132 10. It is unfair to single out only Schedule 10 for an above jurisdictional average
133 percentage increase.

134

135 **Q. Mr. Brubaker indicated that the load research data used by the Company in**
136 **its class cost of service study is outdated and has some other problems. If**
137 **Mr. Brubaker is correct, how will that change your proposed rate spread?**

138 A. As I indicated in my rebuttal testimony, if the Commission is convinced of the
139 problems indicated by Mr. Brubaker and Mr. Chernick (problems with the
140 irrigation and other load research studies) I would propose that a uniform
141 percentage increase be applied to all rate schedule classes.

142 **Q. On page 9, lines 7 through 9, of his rebuttal testimony Mr. Brubaker stated**
143 **that “demand charges give the customer a continuous incentive to avoid**
144 **setting demand higher because higher demands at any time will trigger**
145 **higher billing demand and, therefore, a higher cost. Do you agree?**

146 A. No. On the same page, lines 11 to 19, Mr. Brubaker illustrated his point using a
147 hypothetical numerical example. He took two rate design alternatives, A and B.
148 The demand charges for the two rate designs were \$12 per kW-month for
149 alternative A and \$6 per kW-month for alternative B. The energy charges for the
150 two alternative rate designs were \$0.02 per kWh for alternative A and \$0.032 per
151 kWh for alternative B. He then evaluated the dollar impact of an additional one
152 kWh at the time of the customer’s maximum demand. Based on his calculations,
153 he found that the additional kWh would increase the revenue by \$12.02 and
154 \$6.032 for alternatives A and B, respectively. Based on the results of this
155 calculation, he concluded that rate A provides the customer with greater incentive
156 not to add load.

157 The Division believes that this calculation is misleading. The revenues collected
158 with the demand charge are calculated by multiplying the demand charge by the
159 number of kW associated with the 15 minutes or 1 hour with the highest
160 customer load. When a customer adds an additional kW, it will change the
161 number of kW associated with the customer’s maximum demand (say from
162 10kW-month to 11kw-month). This will add the revenues collected with the
163 demand charge by an amount equal to the demand charge (in this example, \$12

164 for alternative A and \$6 for alternative B). However, this will be so no matter
165 whether the customer runs flat at the 11kW level for the rest of the month or not.
166 It is no longer avoidable.

167 On the other hand, the revenues collected with the energy charge is given by the
168 product of the energy charge and the number of hours those kW's are consumed.
169 That is, the revenues collected as energy will vary with the number of hours those
170 kW's are consumed. The customer has a choice to vary the number of hours of
171 consumption. Every additional hour of consumption of the additional kW will
172 cost him \$0.02 for alternative A and \$0.032 for Alternative B. This illustrates
173 how alternative B provides the customer with greater incentive to conserve than
174 alternative A. Therefore, it is the energy charge not the demand charge that
175 provides the customer the incentive to conserve. Once the customer reaches his
176 monthly maximum demand, no level of demand charge will provide him with the
177 incentive to conserve.

178 **Q. Besides energy conservation, is there any other reason that you propose that**
179 **most of the additional revenues be collected with energy charge?**

180 A. Yes. The Division thinks that the customers who take service under Schedule 6
181 are heterogeneous. Some are large and run 24 hours a day, 7 days a week,
182 whereas others are smaller and may run about half a day or even 16 hours. The
183 greater the number of hours of business, the more beneficial it is to face a high
184 demand charge and low energy charge and visa versa. This requires that the
185 demand and energy charges be effectively balanced so that the negative impact
186 upon Schedule 6 customers will be minimized regardless of their load factor.

187 In direct and rebuttal testimonies, I discussed how this balance of the impacts on
188 this heterogeneous group was lost in an earlier rate case. It is time to bring that
189 balance back until the root cause of the problem is resolved. However, the
190 Division reasserts its recommendation that the characteristics of the customers in
191 Schedule 6 be reviewed and the possibility of splitting this group assessed.

192 **Q. What is the correction you are making to DPU Exhibit 9.5R?**

193 A. In calculating the bill impact of my proposed rate design for the residential
194 customers, I inadvertently used a customer charge of \$2 instead of \$2.75 which I
195 recommended. The attached DPU Exhibit 9.5R-Corrected is the corrected version
196 of DPU Exhibit 9.5R. Therefore, DPU 9.5R-Corrected should replace DPU
197 Exhibit 9.5R.

198 **Q. Does this conclude your sur-rebuttal testimony?**

199 A. Yes.

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