

—BEFORE THE UTAH PUBLIC SERVICE COMMISSION—

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IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN	)	DOCKET NO. 10-035-124
POWER FOR AUTHORITY TO INCREASE ITS RETAIL ELECTRIC	)	
UTILITY SERVICE RATES IN UTAH AND FOR APPROVAL OF ITS	)	DPU EXHIBIT 6.OSR-RR
PROPOSED ELECTRIC SERVICE SCHEDULES AND ELECTRIC	)	SURREBUTTAL TESTIMONY

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Artie Powell, PHD

Pre-Filed Surrebuttal Testimony

Revenue Requirement

Division of Public Utilities

July 19, 2011

**Table of Contents**

Introduction ..... 1

Scope of Surrebuttal Testimony ..... 1

Response to Office Witness Ms. Ramas—Generation Overhaul Expense ..... 3

Response to UAE Witness Kevin Higgins—Klamath Removal Surcharge ..... 10

Response to Office Witness Ms. Beck—Klamath Adjustment..... 11

Response to Company Witness Mr. McDougal—Klamath Adjustment ..... 17

Response to Company Witness Mr. McDougal—Uncollectable Expense ..... 19

Response to Office Witness Ms. Beck—Revenue Requirement..... 24

Response to UIEC Witness Dr. Malko—Revenue Requirement ..... 28

1  
2  
3  
4  
  
5  
6  
7  
8  
  
9  
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11  
  
12  
13  
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ARTIE POWELL, PHD  
PRE-FILED SURREBUTTAL TESTIMONY  
REVENUE REQUIREMENT  
DOCKET NO. 10-035-124

**INTRODUCTION**

**Q: WILL YOU PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION?**

A: My name is Artie Powell; my business address is 160 East 300 South, Salt Lake City, Utah; I am the manger of the Energy Section in the Division of Public Utilities.

**Q: ARE YOU THE SAME DR. POWELL THAT FILED DIRECT TESTIMONY IN THIS PROCEEDING?**

A: Yes. I filed direct testimony, DPU Exhibit 6.0D-RR, on behalf of the Division on May 26, 2011.

**SCOPE OF SURREBUTTAL TESTIMONY**

**Q: WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

A: I will respond to the pre-filed rebuttal testimony of the Office of Consumer Service's (Office) witnesses Ms. Michelle Beck and Ms. Donna Ramas; the Company's witnesses Mr. Steve McDougal and Mr. Dean Brockbank; UIEC's witness Dr. Robert Malko; and UAE's witness Mr. Kevin Higgins.

**Q: WILL YOU PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY?**

A: On behalf of the Office, Ms. Ramas raises four concerns regarding the Division's recommendation on the Company's generation overhaul expense (GOE). These concerns are tangential to the issue of estimating the test year GOE and are

22 unpersuasive. Therefore, the Division continues to recommend that the Commission  
23 adopt for the purpose of estimating GOE the method described in by direct testimony.

24 Ms. Beck and Mr. Higgins point out that the Klamath removal surcharge is  
25 allocated to Utah under Rolled-In as filed by the Company and should be removed from  
26 Utah's revenue requirement. I agree with this adjustment and the change is reflected in  
27 the Division's surrebuttal position. The adjustment decreases the Company's revenue  
28 requirement by approximately \$7.4 million. I also correct an error in my direct  
29 testimony regarding the adjustment due to removing the accelerated depreciation of  
30 the Klamath plant. Finally, I address Ms. Beck's argument that the relicensing and  
31 settlement costs need to be removed. I show that Ms. Beck's position is inconsistent  
32 with a Rolled-In allocation methodology and past Commission decisions.

33 In addressing Mr. McDougal's rebuttal of the Division's position on uncollectable  
34 expense, I demonstrate that the Division's position presented by Ms. Salter is based on  
35 sound logic.

36 Finally, I address the Office's and UIEC's concerns that the Division is proposing  
37 an unorthodox method of determining the Company's revenue requirement in this case.  
38 I clarify the Division's position in this regard and demonstrate that it is consistent with  
39 traditional regulatory practice.

40 **RESPONSE TO OFFICE WITNESS MS. RAMAS—GENERATION OVERHAUL**  
41 **EXPENSE**

42 **Q: THE OFFICE'S WITNESS MS. RAMAS RAISES SEVERAL OBJECTIONS TO YOUR RECOMMENDATION ON THE**  
43 **TREATMENT OF GENERATION OVERHAUL EXPENSE. COULD YOU SUMMARIZE YOUR RECOMMENDATIONS**  
44 **REGARDING THE ESTIMATION OF GENERATION OVERHAUL EXPENSE?**

45 A: Yes. In my direct testimony, I compared and contrasted two methods for estimating  
46 generation overhaul expense (GOE). I referred to these two methods as Method 1 and  
47 Method 2. Method 1 escalates or inflates the average of four historical values; Method  
48 2 averages the escalated historical values. A summary of these two methods are in  
49 Equations 1 and 2 of my direct testimony, which for convenience, I repeat here.

50 Assuming  $G_1$ ,  $G_2$ ,  $G_3$ , and  $G_4$  are the historical annual GOE values, Method 1 is given by,

$$\hat{G}_5 = \frac{(1 + \pi)}{4} [G_1 + G_2 + G_3 + G_4] = \frac{(1 + \pi)}{4} \sum_{i=1}^4 G_i \quad \text{Eq. 1}$$

51 where  $\pi$  is the inflation rate. In contrast, Method 2 is given by,

$$G_5^0 = \frac{1}{4} [G_1 (1 + \pi)^4 + G_2 (1 + \pi)^3 + G_3 (1 + \pi)^2 + G_4 (1 + \pi)] = \frac{1}{4} \sum_{i=1}^4 G_i (1 + \pi)^{5-i} \quad \text{Eq. 2}$$

52 In my direct testimony, I demonstrated that Method 1 on average will  
53 underestimate the fifth year value, while the estimate from Method 2 on average will  
54 equal the fifth year value. Therefore, I recommended, and still recommend, using  
55 Method 2 to estimate the test year GOE.

56 **Q: WOULD YOU SUMMARIZE THE OBJECTIONS THAT MS. RAMAS RAISES IN HER REBUTTAL TESTIMONY?**

57 A: Ms. Ramas raises four issues with respect to my recommendation on estimating the test  
58 year GOE. First, Ms. Ramas indicates that based on the testimony in past cases the  
59 Commission chose not to use an escalation factor in estimating the test year GOE.  
60 Second, Ms. Ramas correctly points out that I "did not use historical escalation factors  
61 specific to those periods."<sup>1</sup> Third, Ms. Ramas argues that I did not accurately represent  
62 the position of parties or the method adopted by the Commission in previous rate cases.  
63 Fourth, Ms. Ramas claims that I have presented no new evidence to support my  
64 recommendations in this case.

65 **Q: DO YOU AGREE WITH THE OBJECTIONS THAT MS. RAMAS RAISES?**

66 A: No, I do not. I believe Ms. Ramas objections miss the mark and are unpersuasive, and in  
67 some cases, incorrect.

68 **Q: WHAT DO YOU MEAN THAT MS. RAMAS' OBJECTIONS MISS THE MARK?**

69 A: The issue at hand I believe is to estimate the GOE that the Company will face in the rate  
70 effective period. The objections raised by Ms. Ramas do not address the merits or logic  
71 of my recommendation or methodologies—her objections are tangential to this issue  
72 and do not address the economic or statistical justifications and evidence for using  
73 Method 2 as opposed to Method 1.

74 **Q: WOULD YOU EXPLAIN WHY YOU FIND MS. RAMAS' OBJECTIONS UNPERSUASIVE?**

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<sup>1</sup> "Rebuttal Testimony of Donna Ramas for the Office of Consumer Services," Docket No. 10-035-124, June 30, 2011, p. 6, lines 132-133.

75 A: I shall discuss each of Ms. Ramas' objections in turn. First, Ms. Ramas points out that  
76 based on testimony provided in prior cases, the Commission chose not use an inflation  
77 factor to estimate the test year GOE. While this is correct, I believe the Commission's  
78 decision was based on incomplete information. In his rebuttal testimony in this case,  
79 the Company's witness, Mr. McDougal, provides a short explanation and example<sup>2</sup>  
80 supporting my recommendation. This part of his testimony is similar to Mr. McDougal's  
81 testimony in Docket No. 09-035-23,<sup>3</sup> which is far less complete than the testimony I  
82 have provided in this case.

83 As Ms. Ramas points out, in the prior rate case, Docket No. 09-035-23, I provided  
84 the results of a simulation<sup>4</sup> similar to the one I have provided in this case. As in this  
85 case, the simulation results support my recommendation of using Method 2 to forecast  
86 the test year GOE. However, since I was responding to the rebuttal testimony of Mr.  
87 McDougal in the prior case, my testimony and evidence on the Company's GOE was  
88 limited to that simulation and its results. In this case I have provided more detail and  
89 new evidence in support of my recommendation. Given the limited nature of the  
90 evidence presented in prior cases, I find Ms. Ramas' objection unpersuasive.

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<sup>2</sup> See "Confidential Pages of the Rebuttal Testimony of Steven R. McDougal—Revenue Requirement," Docket No. 10-035-124, pp. 16-17, lines 307-336.

<sup>3</sup> See Rebuttal testimony of Mr. Steven R. McDougal, Docket No, 09-035-23, pp. 24-25, lines 518-535.

<sup>4</sup> See, "Pre-filed Surrebuttal Testimony of William A. Powell, PhD On Behalf of the Division of Public Utilities," November 30, 2009, pp. 8-13, lines 138-219.

91                   Second, Ms. Ramas correctly states that I "did not use historical escalation  
92 factors specific to those periods." I conclude from Ms. Ramas' statement that she  
93 believes if an inflation rate is to be used, one should use inflation rates specific to the  
94 historical periods. For example, in this case the historical GOE values are for the years  
95 2007 through 2010. The GOE for 2007 would first be inflated using a 2008 inflation  
96 rate—this would bring the 2007 value to a 2008 equivalent value; the 2008 equivalent  
97 value would then be inflated using a 2009 inflation rate; the 2009 equivalent would then  
98 be inflated using a 2010 inflation rate; and the 2010 equivalent value would then be  
99 inflated using a 2011 inflation rate.<sup>5</sup> A similar procedure would be applied to the other  
100 three historical values. While this would certainly increase the complexity of the  
101 derivations shown in my direct testimony, it would not change the qualitative results:  
102 Method 2 would still be superior to Method 1.

103                   Additionally, the inflation rates I used are fairly modest ones.<sup>6</sup> For example, the  
104 inflation rates I used in the estimation of the GOE are for the most part less than or  
105 approximately equal to the inflation rates for the years 2007 through 2010 calculated  
106 from the Consumer Price Index. (See Table 1)<sup>7</sup> Confidential DPU Exhibit 6.2SR-RR

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<sup>5</sup> Since this process only inflates through the end 2011, the resulting value is not matched perfectly with the end of the test year. In other words, the resulting value loosely represents an average value for the test year. In this regard, this is similar to how I applied the single inflation value in direct testimony.

<sup>6</sup> See Confidential DPU Exhibit 6.6D-RR in this docket.

<sup>7</sup> Average annual CPI figures derived from St. Louis Federal Reserve CPI data base, All Urban Consumers, All Items. <<http://research.stlouisfed.org/fred2/series/CPIAUCSL?cid=9>>



107 contains a similar comparison to Global Insight escalation rates for the same period.  
108 The rates were taken from those filed by the Company in this case as well as from the  
109 previous rate case, Docket No. 09-035-23. This comparison shows that my inflation  
110 factors are greater in some years and less in others, but on average my inflation factors  
111 are less than the year to year Global Insights numbers.

112 **Table 1: CPI Inflation Rates**

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Year	CPI	Inflation
2006	201.56	
2007	207.34	2.87%
2008	215.25	3.82%
2009	214.55	-0.33%
2010	218.08	1.65%
2011 <sup>8</sup>	223.21	2.35%

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113 In summary, I agree one could do as Ms. Ramas implies and use specific  
114 historical inflation rates to estimate the GOE. However, Ms. Ramas' objection should be  
115 viewed for what it is, namely, an argument about the appropriate inflation rate(s) and  
116 does not address the merits of my recommendation. Thus, Ms. Ramas' digression into  
117 appropriate interest is unpersuasive.

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<sup>8</sup> Data for 2011 include only January through May, 2011.

118 Third, in her rebuttal testimony, Ms. Ramas states

119 However, Dr. Powell's summarization of the methods or  
120 approach advocated in prior cases completely excludes the  
121 method recommended by the OCS in prior cases, which  
122 was adopted by the Commission in those cases, that a  
123 straight four year average approach be used without any  
124 escalation applied.<sup>9</sup>

125 This statement is not accurate. The method advocated by the Office that Ms.  
126 Ramas refers to is a special case of Method 1 described here and in my direct  
127 testimony.<sup>10</sup> This is reflected in DPU Exhibit 6.4D-RR, Equation 5 by setting the inflation  
128 rate,  $\pi$ , to zero.<sup>11</sup> With this assumption, Equation 7 that follows would be rewritten as,

$$\theta = (1 + \pi)^{-1} * \frac{[1 + (1 + \pi)^{-1} + (1 + \pi)^{-2} + (1 + \pi)^{-3}]}{4} \quad \text{Eq. 3}$$

129 And the qualitative results discussed in my direct testimony would still hold. Namely,  
130 Method 1 would on average systematically underestimate the GOE while Method 2 on

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<sup>9</sup> Rebuttal Testimony of Donna Ramas, p. 6, lines 167-171.

<sup>10</sup> In DPU Exhibit 6.4D-RR I provide a generalization of Method 1 on page 3. The generalized model is summarized in Equations 10 and 11. To see that the Offices method is a special case of Method 1, set k equal to zero in those two equations.

<sup>11</sup> The inflation rate in Equation 5 of DPU Exhibit 6.4D-RR is the assumed inflation rate chosen for the estimation. The Inflation rate that is left in Equation 7 of that exhibit or as rewritten here in Equation 3 is the actual inflation rate that defines the relationship as described in Equation 2 of that exhibit. In summary, the Office's proposal assumes that the chosen inflation rate used in the estimator is zero, while the actual inflation rate reflected in the value being estimated is not zero. In general, this mismatch will not yield an accurate estimate or forecast.

131 average would equal the fifth year GOE value. Again, Ms. Ramas' concern does not  
132 address the merits of the issue and are unpersuasive.

133 Finally, Ms. Ramas incorrectly claims that I have not presented any new evidence  
134 in this case to support my recommendation.<sup>12</sup> As I discussed previously, the evidence  
135 presented in prior rate cases has been limited. For example, while I presented the  
136 results of a similar simulation in the prior rate case, my evidence was limited to that  
137 simulation and its results. In this case, I have provided extensive statistical support and  
138 justification for my recommendation, evidence that the Commission is seeing for the  
139 first time. This includes the theoretical statistical derivations represented in Equations 2  
140 through 7 of my direct testimony with the accompanying discussion, and the detailed  
141 derivations and discussion in DPU Exhibit 6.4D-RR. Additionally, using basic economic  
142 principles, I discussed in my direct testimony why comparing two values on a nominal  
143 basis separated in time can lead to erroneous conclusions.<sup>13</sup>

144 **Q: WOULD YOU SUMMARIZE YOUR RECOMMENDATIONS REGARDING THE ESTIMATION OF GOE?**

145 A: The objections raised by Ms. Ramas in her rebuttal testimony regarding my  
146 recommendations on estimating GOE are unpersuasive. Additionally, Ms. Ramas fails to  
147 address the underlying logic or evidence I have presented in this case to support my

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<sup>12</sup> Rebuttal Testimony of Ms. Ramas, pp. 6-7, lines 150-169.

<sup>13</sup> "Direct Testimony—Revenue Requirement," DPU Exhibit 6.0D-RR, Docket No. 10-035-124, pp. 28-29, lines 473-493.

148 recommendations. One could use, as Ms. Ramas appears to imply, inflation factors  
149 specific to the historical values. However, in this case the inflation rates I chose are  
150 relatively modest and would not affect the qualitative differences between the  
151 forecasting methods. That is, Method 2 would yield superior statistical results relative  
152 to Method 1, or its special case as advocated by the Office. Therefore, I continue to  
153 recommend that Method 2 as described in my direct testimony be used to estimate the  
154 test year GOE.

155 **RESPONSE TO UAE WITNESS KEVIN HIGGINS — KLAMATH REMOVAL**  
156 **SURCHARGE**

157 **Q: RESPONDING IN HIS REBUTTAL TESTIMONY TO YOUR DIRECT TESTIMONY ON THE KLAMATH ADJUSTMENT,**  
158 **UAE WITNESS MR. HIGGINS STATES, “THE UPSHOT IS THAT RECOGNITION OF THE KLAMATH SURCHARGE**  
159 **REVENUE AS AN OFFSET TO UTAH’S REVENUE REQUIREMENT DOES REQUIRE A FURTHER ADJUSTMENT IN**  
160 **THE DIVISION’S REVENUE ADJUSTMENTS.”<sup>14</sup> DO YOU AGREE WITH MR. HIGGINS?**

161 **A:** Yes I do. As Mr. Higgins explains, the Klamath removal surcharge is allocated to Utah  
162 under the Rolled-In methodology.<sup>15</sup> Removing this surcharge from Utah rates would  
163 further adjust the Company’s revenue requirement on a Utah basis by approximately  
164 \$7.4 million dollars. (See Table 2) This additional adjustment is reflected in the  
165 Division’s final revenue requirement position contained in Ms. Brenda Salter’s  
166 Surrebuttal Testimony, DPU Exhibit 8.2SR-RR.

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<sup>14</sup> “Rebuttal Testimony of Kevin C. Higgins (Revenue Requirement),” Docket No. 10-035-124, June 30, 2011, pp. 3-4, lines 68-70.

<sup>15</sup> Office witness Ms. Michele Beck makes a similar observation in her rebuttal testimony.

167 Table 2: Klamath Removal Surcharge

UNDER REVISED PROTOCOL			
TOTAL			UTAH
COMPANY (\$)	FACTOR	FACTOR %	ALLOCATED
15,824,000	OR	0.0	0.0
1,376,0000	CA	0.0	0.0
UNDER ROLLED-IN (\$)			(\$)
15,824,000	SG	0.43284	6,849,260
1,376,0000	SG	0.43284	595,588
TOTAL			7,444,848
ADJUSTMENT			-7,444,848

Data Source: Steven R. McDougal, Exhibit RMP\_(SRM-3), 8.12

168 **RESPONSE TO OFFICE WITNESS Ms. BECK — KLAMATH ADJUSTMENT**

169 **Q: REFERRING TO PART OF YOUR KLAMATH ADJUSTMENT, Ms. BECK STATES, “IT IS NOT CLEAR THAT THE**  
170 **ENTIRE \$4.5 MILLION DESCRIBED IN LINE 442 OF DR. POWELL’S DIRECT TESTIMONY HAS BEEN INCLUDED,**  
171 **AS THE ONLY KLAMATH ADJUSTMENT IDENTIFIED IN DPU EXHIBIT 8.2 (DIRECT) IS FOR \$3.4 MILLION.”<sup>16</sup>**  
172 **CAN YOU SHED LIGHT ON Ms. BECK’S COMMENT?**

173 **A:** Yes. The \$3.4 million in DPU Exhibit 8.2 is the correct total adjustment. The \$4.5 million  
174 in my direct testimony is incorrect and should have been \$3.3 million. Let me explain.

<sup>16</sup> “Rebuttal Testimony of Michele Beck on Behalf of the Office of Consumer Services,” Docket No. 10-035-124, p. 4, lines 83-86.

175 As explained in my direct testimony,<sup>17</sup> depreciation reserve acts as an offset to  
176 the rate base. Removing the accelerated depreciation as I recommended, has the effect  
177 of decreasing depreciation reserve<sup>18</sup> and, thus, increasing rate base. In the body of my  
178 direct testimony, I incorrectly added the effects of the removal of the accelerated  
179 depreciation and the associated adjustment in the depreciation reserve, which are  
180 respectively summarized in Tables 3 and 4. These adjustments should have been  
181 subtracted from one another. The adjustment in Table 3 summarizes removal of the  
182 accelerated depreciation, and adjusts the Company's revenue requirement by  
183 approximately (\$3.90) million. Table 4 summarizes the adjustment to the Company's  
184 depreciation reserve, approximately \$3.88 million. I applied a rough rule-of-thumb of  
185 16.5% to the change in depreciation reserve, which yields a revenue requirement  
186 impact of approximately \$640,000. Adding or netting the two adjustments, adjusts the  
187 Company's revenue requirement by approximately (\$3.3) million. Thus DPU Exhibit 8.2  
188 correctly reflects the Division's adjustment.

189 Several small changes to my direct testimony will clarify my recommendation.  
190 First on line 436, where it reads, "will decrease the Company's" should be changed to  
191 read, "will increase the Company's". Similarly on line 437 where it reads, "The impact of  
192 this adjustment decreases" should be changed to read, "The impact of this adjustment

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<sup>17</sup> See my direct testimony, lines 434-435.

<sup>18</sup> See DPU Exhibit 6.3D-RR, pp. 2-3.

193 increases". And as previously explained, on line 442, "\$4.5" should be changed to  
194 "\$3.3". Finally, in Table 4, the negative signs on the numbers in the last column on the  
195 right, "Revenue Requirement Impact", should be removed.

196 **Q: Ms. BECK OBJECTS TO YOUR RECOMMENDATION THAT THE KLAMATH RELICENSING COSTS SHOULD BE**  
197 **RECOVERED THROUGH RATES. SPECIFICALLY, SHE STATES THAT YOU DO NOT "ADDRESS THE FACT THAT**  
198 **THESE COSTS WERE INCURRED AND PAID FOR A HYDRO RESOURCE, THE BENEFIT OF WHICH AT THAT TIME**  
199 **WAS RESERVED BY THE REVISED PROTOCOL FOR PACIFIC POWER JURISDICTIONS." DO YOU AGREE WITH**  
200 **Ms. BECK?**

201 **A:** No. I believe the position Ms. Beck articulates contradicts her testimony advocating a  
202 movement in this case to Rolled-In and is inconsistent with Commission direction on  
203 inter-jurisdictional allocations. In fact, her position is similar (if not identical) to the  
204 position taken by the Company with respect to the gain on the sale of the Centralia  
205 plant in Docket No. 99-2035-03.<sup>19</sup>

206 In the Centralia case the Company argued that since Utah, under various inter-  
207 jurisdictional allocation methods, had paid only approximately five percent of  
208 accumulated depreciation on the Centralia plant, it should be allocated only five percent  
209 of the gain. The Company also argued that the entire gain should go to shareholders.  
210 The Commission rejected both of these arguments. In its order in the Centralia docket,  
211 the Commission stated,

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<sup>19</sup> See Ms. Beck's further rebuttal comments at lines 125-127; 133-137; 139-141; 142-144; and 146-148.

212 Our conclusion that 95 percent of the gain on the  
213 sale must come to ratepayers as compensation for the  
214 future risks the sale imposes on them means that the  
215 Company's proposal to allocate just 5 percent of the  
216 ratepayers' share of the gain to Utah is inadequate. A 5  
217 percent share of the gain is wholly inadequate given  
218 record evidence that this jurisdiction will bear  
219 approximately 35 percent of the going-forward risks.

220 PacifiCorp's proposal to allocate but 5 percent of  
221 the gain to Utah follows from its view of the importance of  
222 history. By its calculation, Utah customers have paid just 5  
223 percent of the accumulated depreciation on Centralia. This  
224 calculation is based on interjurisdictional allocation  
225 methods employed since the merger between Pacific  
226 Power and Utah Power occurred in 1989, plus the  
227 application of the fully rolled-in method for the period  
228 following its adoption in April 1998 by Utah Commission  
229 order. Regardless of such history, and without according it  
230 decision making significance, the Division argues that the 5  
231 percent proposal is unfair. Five percent of the gain cannot  
232 compensate Utah ratepayers who must bear 35 percent of  
233 the risk. The [Office] regards this as the crucial issue if sale  
234 is permitted, arguing that the Commission should support  
235 the conclusions of the April 1998 Order on



236 interjurisdictional allocations and allow Utah the benefits  
237 of the fully rolled-in method.<sup>20</sup>

238 Relevant to the issue at hand, the Commission concluded,

239 As we have repeatedly held, historical cost  
240 causation is an improper basis for interjurisdictional  
241 allocation of system revenue requirement. In the April  
242 1998 Order, we reaffirmed that current, not historical,  
243 characteristics of cost causation are what count. . . . The  
244 Utah jurisdictional share will be about 35 percent, the  
245 precise amount to be determined by application of the  
246 fully rolled-in allocation method.<sup>21</sup>

247 In summary, the Commission determined that, despite the fact that Utah  
248 ratepayers had paid only a small portion of the accumulated depreciation on the  
249 Centralia plant, Utah ratepayers were entitled to a fully allocated share of the gain  
250 (minus a small amount to indemnify shareholders for its remaining risk) as  
251 compensation for the potential going forward risk. Similarly, since going forward Utah  
252 ratepayers will under Rolled-In receive a fully allocated share of the benefits from the  
253 Klamath plants, it should receive a fully allocated share of the costs, including the  
254 relicensing and settlement costs, necessary to maintain the operations of the plant. The  
255 Division's recommendation is consistent with both the regulatory principles of matching

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<sup>20</sup> "Report and Order: Sale of the Centralia Plant and Mine," Docket No. 99-2035-03, March 14, 2000, pp. 19-20.

<sup>21</sup> "Report and Order: Sale of the Centralia Plant and Mine," p. 20.

256 benefits with costs and the Commission's long-standing position that current, not  
257 historical, characteristics of cost causation are the appropriate basis for inter-  
258 jurisdictional allocations.

259 If, on the other hand, the Commission determines none of these costs is  
260 recoverable from Utah ratepayers, then the Commission should consider removing part  
261 or all of the benefits from the case as well. However, I caution that this is dangerously  
262 similar to situs assigning generation resources, a practice that the Commission and other  
263 Utah parties have resisted since the merger between Pacific Power and Utah Power and  
264 could open the floodgates for similar requests through the MSP process.<sup>22</sup>

265 **Q: MISS BECK ARGUES THAT YOU DID NOT SUPPORT YOUR CONCLUSION THAT THE RELICENSING AND**  
266 **SETTLEMENT COSTS WOULD BE INCURRED REGARDLESS OF THE PATH TAKEN, RELICENSING OR REMOVAL.**  
267 **DO YOU HAVE ANY COMMENTS?**

268 A: I based my conclusions on a careful review of the Company's testimony in this case,  
269 conversations with Company representatives, and a review of many of the Klamath  
270 related data requests in this case. In addition, Mr. Brockbank addresses in lines 84-125  
271 of his rebuttal testimony many of the objections raised by the Office in its direct

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<sup>22</sup> Wyoming representatives have pushed (unsuccessfully) for the MSP standing Committee to consider a Wyoming situs assigned coal plant. Similarly, in the MSP discussions leading to the 2010 Protocol, Oregon representatives requested an allocation study based on situs assignment of resources by operating area as a means of determining the benefits (or costs) of breaking up the Company. Some Utah parties vigorously opposed both proposals. While the Company performed Oregon's requested study, the Oregon requested study design was so flawed as to make the results, in my opinion, unusable. In addition, situs assigning resources was part of the basis of the Company's original Strategic Realignment Proposal or SRP in Docket No. 00-035-15 a proposal that the Utah Commission rejected.

272 testimony. Mr. Brockbank's references to his direct testimony and the KHSA agreement  
273 are part of what I reviewed for my direct testimony. I have found no evidence to refute  
274 the Company's claim, summarized by Mr. Brockbank in response to the Office's direct  
275 testimony that the intent of KHSA process and agreement was to address the relicensing  
276 and continued operation of the Klamath facilities.<sup>23</sup>

277 **RESPONSE TO COMPANY WITNESS MR. MCDUGAL — KLAMATH**  
278 **ADJUSTMENT**

279 **Q: IN YOUR DIRECT TESTIMONY YOU RECOMMEND THAT THE RELICENSING AND SETTLEMENT COSTS BE**  
280 **DEPRECIATED OVER TWENTY YEARS AND NOT TEN AS THE COMPANY REQUESTS. IN REBUTTAL, MR.**  
281 **MCDUGAL ARGUES THAT YOUR ADJUSTMENT "MISALIGNS THE BENEFITS WITH THE COSTS CAUSING**  
282 **INTERGENERATIONAL SUBSIDIES."<sup>24</sup> DO YOU AGREE WITH MR. MCDUGAL?**

283 **A:** Not entirely. Mr. McDougal's claim that my recommendation leads to inter-  
284 jurisdictional subsidies is ironic. If the KHSA does not move forward, then the  
285 Company's recommendation to accelerate the depreciation of the Klamath facilities will  
286 also lead to the same type of inter-jurisdictional subsidies. The real issue is not the  
287 inter-jurisdictional subsidies, which, because the depreciation will be trued-up when the  
288 outcome is known, will be short-lived, but the uncertainty of the outcome of the KHSA  
289 agreement and the removal of the Klamath dam. My recommendation acknowledges

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<sup>23</sup> See "Rebuttal Testimony of Dean S. Brockbank," Docket No. 10-035-124, p. 5, lines 98-107.

<sup>24</sup> "Confidential Pages of the Rebuttal Testimony of Steven R. McDougal," Docket No. 10-035-124, pp. 66-67, lines 1451-1453.

290 this uncertainty and attempts to mitigate the rate impact of any depreciation true-up in  
291 the future. Let me explain.

292 My recommendation to depreciate the relicensing costs over 20 years is a  
293 compromise between the Company's request to accelerate the depreciation over ten  
294 years in anticipation of the removal of the plant and depreciating the plant over its  
295 remaining life, approximately 44 years. I recognize that whether the Klamath plant is  
296 removed in ten years or not, that under my recommendation an adjustment to the  
297 depreciation of the plant will take place. On the one hand, if the KHSA goes forward,  
298 the depreciation would need to be increased. On the other hand, if the KHSA does not  
299 go forward, the depreciation would need to be decreased to match the remaining life.  
300 In contrast, the Company's recommendation would have the Company over collect the  
301 depreciation if in fact the KHSA does not move forward.

302 I anticipate that the Company will file its next general rate case within the next  
303 year and possibly as early as this winter before the end of the current calendar year. A  
304 decision by the Secretary of the Interior is anticipated after March 2012 and thus  
305 possibly available during the next rate case proceeding. His decision will, I believe, grant  
306 more certainty to the outcome of the KHSA. Therefore, at most, the mismatch  
307 indentified by Mr. McDougal would exist for approximately one year. The intent of my

308 recommendation is to mitigate the impact of the change in depreciation regardless of  
309 the outcome of the KHSa agreement.

310 **RESPONSE TO COMPANY WITNESS MR. MCDUGAL—UNCOLLECTABLE**  
311 **EXPENSE**

312 **Q: REGARDING THE DIVISION’S ADJUSTMENT TO UNCOLLECTABLE EXPENSE, COMPANY WITNESS MR.**  
313 **MCDUGAL STATES IN HIS REBUTTAL TESTIMONY, “MS. SALTER’S ADJUSTMENT SEEMS TO BE GUIDED**  
314 **MORE BY TRYING TO GET A LOWER AMOUNT THAN TO REDUCE VOLATILITY.”<sup>25</sup> DO YOU AGREE WITH MR.**  
315 **MCDUGAL’S CHARACTERIZATION OF THE DIVISION’S ADJUSTMENT TO UNCOLLECTABLE EXPENSE?**

316 A: No I do not. In his direct testimony, Mr. McDougal explains why the Company chose not  
317 to use a three year average (as the Commission decided in the previous rate case), but  
318 instead used for the test year the same rate as the June 2010 unadjusted value. On  
319 page 34 of his direct testimony, Mr. McDougal provides the historical values for June  
320 2008, June 2009, and June 2010. The average of these three values—respectively  
321 0.311%, 0.367% and, 0.315%—is 0.331%. Looking at the graph in Mr. McDougal’s direct  
322 testimony, it appears that the value for June 2009 is an anomaly—relative to the other  
323 two values it appears on the high side. However, determining whether the June 2009  
324 value is indeed an anomaly in this manner is highly subjective—there is no statistical  
325 basis for drawing any such conclusion from only three values. The Division’s purpose in  
326 proposing using a five year average was not only to address the issue of volatility in the  
327 historical values, but also to address the apparent concern that the Company expressed

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<sup>25</sup> “Confidential Pages of the Rebuttal Testimony of Steven R. McDougal,” Docket No. 10-035-124, p. 42, lines 885-886.

328 in its choice that one or more of the historical values may constitute an anomalous or  
329 outlying value.

330 In recognition of the Companies apparent concern over anomalous values, in  
331 direct testimony, Division witness Ms. Brenda Salter states,

332 The 12 months ending December 2008 uncollectible  
333 expense and the 12 months ending June 2009 appear to  
334 be **anomalous** periods. In order to get a better picture of  
335 what a **normal** uncollectible expense would be one could  
336 remove the **anomalous** periods from a 3-year average and  
337 include periods prior to the recession, or smooth the five  
338 years with a rolling average. Rather than removing data,  
339 the better fit was to use a rolling average.<sup>26</sup> (Emphasis  
340 added)

341 Ms. Salter went on to conclude,

342 The Company's uncollectible expense has proven to be  
343 volatile with swings in both directions. My adjustment has  
344 incorporated a smoothing mechanism that has the ability  
345 to remove some of the volatility. The Company's  
346 adjustment in the 2009 rate case used the uncollectible  
347 expense in the base year and escalated it. In this case the  
348 Company chose to use the base year uncollectible expense

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<sup>26</sup> "Direct Testimony of Brenda Salter," DPU Exhibit 8.0D-RR, Docket No. 10-035-124, pp. 18-19, lines 337-341.

349 rate as explained in Mr. McDougal's Exhibit RMP\_\_SRM-2  
350 page 32 and 33. Neither of the Company's methods took  
351 into account the volatility of the uncollectible expense.<sup>27</sup>

352 From Ms. Salter's testimony it is clear that the Division's adjustment and  
353 methodology was designed to address both the volatility in the historical data as well as  
354 the potential for anomalous values. The Company's approach in this case, on the other  
355 hand, only attempted to deal with the apparent anomalous nature of the 2009 value,  
356 but did so in an arbitrary manner.

357 **Q: WHY DID THE DIVISION PROPOSE USING FIVE YEARS INSTEAD OF THREE?**

358 A: As I mentioned above, there is not enough information in three values on which to base  
359 a judgment concerning outlying values. With five values, exploratory data analysis  
360 methods, such as Box Plots, could be used to help make a determination about outlying  
361 values. Five is the minimum number of data points that can be used to construct a Box  
362 Plot.<sup>28</sup> The Box Plot graphically depicts the first, second, and third quartiles for a  
363 sample, and an upper and lower fence. Data points beyond the fences are usually  
364 considered to be outliers —values that have a low probability of occurrence.

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<sup>27</sup> Direct Testimony of Ms. Salter, p. 19, lines 345-351.

<sup>28</sup> John D. Emerson and Judith Strenio, "Boxplots and Batch Comparison," in Understanding Robust and Exploratory Data Analysis, [John Wiley & Sons: New York, New York], 1983, p. 61. A copy of this article is provided as DPU Exhibit 6.1SR-RR.

365                   However, caution must be exercised when applying a Box Plot to a small sample  
366 of data. For example, when drawing a large random sample of data from a normal  
367 distribution, one would expect approximately seven-tenths of one percent (0.7%) of the  
368 sample values to be beyond the fences<sup>29</sup> and, thus, qualify as outliers.<sup>30</sup> In other words,  
369 if a very large sample (say, 10,000 data points) were drawn from a standard normal  
370 distribution, then it would be expected that approximately 0.7% of the sample (70 data  
371 points) would be classified as outliers. In a sample of five data points, however, the  
372 number of outliers can be understated. For example, the authors of one study found  
373 “that 67% of samples had no values beyond the outlier cutoffs.”<sup>31</sup>

374 **Q:     WHY ARE OUTLIERS A CONCERN?**

375 A:     There are several reasons why one would be concerned about the presence of outliers  
376 in a sample. Relevant to the issue at hand, the sample mean can be unduly influenced  
377 by the presence of one or more outliers in the data. Remember that the sample mean is  
378 the sum of the sample values divided by the sample size. Thus, the sample mean gives  
379 equal weight to each observation in the sample. The problem, for example, is the  
380 presence of a high outlier may yield a mean that is unjustifiably large relative to  
381 expected or normal circumstances.

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<sup>29</sup> The lower and upper fences are defined respectively as  $Q_1 - 1.5 * IQR$  and  $Q_3 + 1.5 * IQR$ , where  $Q_1$  and  $Q_3$  are the first and third quartiles respectively, and  $IQR = Q_3 - Q_1$  is the interquartile range.

<sup>30</sup> Emerson and Strenio, p. 63.

<sup>31</sup> Emerson and Strenio, pp. 64-65.



382 **Q: ARE THERE ANY OUTLIERS IN THE DATA THAT MS. SALTER USED TO CALCULATE THE DIVISION'S**  
383 **UNCOLLECTABLE EXPENSE RECOMMENDATION OF?**

384 A: No. I have reproduced Ms. Salter's uncollectable expense ratios from DPU Exhibit 8.4 in  
385 Table 3. I have also provided the basic values for a Box Plot in the same table. As can be  
386 seen, the minimum and maximum values of the sample are within the calculated fences  
387 and, therefore, none of the sample values would be classified as outliers.

388 Table 3: Uncollectable Expense

Uncollectable Expense Ratios						
Dec 06	.002688					
Jan 07	.002344	Quartiles				
Dec 07	.002468	Q1	.002501			
Jun 08	.003113	Q3	.003220	IQR	.000719	
Dec 08	.003633					
Jun 09	.003665	Fences				
Dec 09	.003244	Lower Fence	.001422	Min Value	.002099	
Jun 10	.003147	Upper Fence	.004298	Max Value	.003665	
Dec 10	.002600					
Jul 10 – Mar 11	.002099					

389 **Q: YOU PREVIOUSLY INDICATED THAT WHEN USING SMALL SAMPLES CAUTION SHOULD BE EXERCISED IN**  
390 **APPLYING THE TECHNIQUES YOU DESCRIBE. WHAT PRECAUTIONS DID MS. SALTER EMPLOY?**

391 A: If outliers are detected in a sample, some researchers and analysts advocate or practice  
392 throwing the offensive data out. In general, I am not in favor of this practice. Instead, I  
393 would recommend possibly using the median instead of the mean as a representation or  
394 estimate of the central tendency.

395 In this case, the analysis does not detect an outlier. Nevertheless, Ms. Salter  
396 investigated the recent trend in the uncollectable expense and the Company's  
397 practices.<sup>32</sup> From this investigation Ms. Salter concluded that the Company's  
398 uncollectable expense would be expected to decrease, which supports Ms. Salter's  
399 reduction to the Company's requested uncollectable expense.

400 **Q: WHAT DO YOU CONCLUDE FROM THIS?**

401 A: I support Ms. Salter's recommendation. Contrary to the Company's claim that the  
402 Division was trying to game the adjustment, Ms. Salter's recommendation is based on  
403 sound reasoning and judgment.

404 **RESPONSE TO OFFICE WITNESS MS. BECK — REVENUE REQUIREMENT**

405 **Q: MS. BECK MAKES A STATEMENT IN HER REBUTTAL TESTIMONY STARTING AT LINE 242 THAT SOME MIGHT**  
406 **INTERPRET AS IMPLYING THAT THE DIVISION IS ASKING THE COMMISSION TO SET A RETURN ABOVE THAT**  
407 **WHICH IS JUSTIFIED BY THE EVIDENCE IN THIS CASE. IS THIS AN ACCURATE CHARACTERIZATION OF THE**  
408 **DIVISION'S POSITION?**

409 A: No, it is not. The statement in my direct testimony that Ms. Beck is responding to, is in  
410 lines 30-46.<sup>33</sup> I do not believe that the Office and the Division are actually at odds over  
411 what we are asking the Commission to do in this case, namely, to set just and

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<sup>32</sup> Direct testimony of Ms. Salter, pp. 15-17, lines 287-307.

<sup>33</sup> Dr. Malko, on behalf of the UIEC, draws a similar conclusion. I will address separately specific comments to his rebuttal testimony later in my surrebuttal testimony.

412 reasonable rates. However, given the confusion surrounding the Division's statement, I  
413 will clarify the Division's position and recommendation to the Commission.

414 In her rebuttal testimony, Ms. Beck states, "My purpose was solely to clarify that  
415 while the Office may agree with adjustments of other parties in addition to those it  
416 proposes, it does not advocate that a decrease in base rates is warranted at this time."<sup>34</sup>  
417 And therein lays the rub. Similar to the Office's position, the Division believes a rate  
418 decrease is unwarranted in this case. However, if the Commission were to adopt just  
419 the minimum adjustment in each category presented by the various parties in this case,  
420 the weight of those adjustments would lead to a rate decrease. If the Commission  
421 adopted the average or maximum adjustment in each category, the rate decrease would  
422 be relatively substantial. (See DPU Exhibit 6.3SR-RR) The Division was aware of the  
423 potential of this outcome prior to filing its direct testimony in this case and attempted  
424 to convey its concern. The Division's recommendation was not that the Commission  
425 would allow the recovery of costs it determined were imprudent but, that the  
426 Commission would review each potential adjustment in light of its impact on the public  
427 interest.

428 As Mr. Scott Hempling points out,

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<sup>34</sup> "Rebuttal Testimony of Michele Beck on Behalf of the Office of Consumer Services," Docket No. 10-035-124, June 30, 2011, p. 10, lines 225-227.

429 Regulatory statutes require regulators to make  
430 decisions ‘consistent with the public interest. . . .

431 Derived from these components [Economic  
432 Efficiency, Sympathetic Gradualism, and Political  
433 Accountability], the public interest is both a composite and  
434 a compromise: a compromise not among private interests,  
435 but among components of the public interest. . . .

436 The public interest can accommodate . . . private  
437 interests—in their legitimate form. . . . But private  
438 interests can press for illegitimate ends—a consumer’s  
439 desire for below-cost power prices with above average  
440 reliability, an investor’s desire for above-market returns  
441 with below average risks, management’s desires for  
442 market domination. . . .

443 The purposeful regulator does not seek  
444 “compromise” or “balance” among private interests  
445 appearing before her.<sup>35</sup>

446 In short, “The purposeful regulator must establish boundaries, to align [private]  
447 interests with the public interest.”<sup>36</sup>

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<sup>35</sup> Scott Hempling, *Preside of Lead?: The Attributes and Actions of Effective Regulators*, National Regulatory Institute, 2010, pp. 3-5.

<sup>36</sup> Scott Hempling, p. 5.

448 Consistent with Mr. Hempling's comments, the Division's concern was that a  
449 balancing or averaging of parties positions would lead to an outcome that was not in the  
450 public interest. Instead, the Division recommends that the Commission seek guidelines  
451 or principles that promote the public interest. Later in my testimony, I recommend that  
452 the Commission pursue a series of technical conferences to address some of these  
453 issues in an open forum. For the present case, perhaps Professor Bonbright said it best  
454 when, after a short introduction on the criteria of a fair return, he stated,

455 The main purpose of this introduction is to guard against a  
456 tendency . . . to treat rate-base measurement and rate-of-  
457 return measurement as if they were governed by different  
458 standards of fairness instead of being merely two steps by  
459 which to determine corporate revenue requirements.

460 Let it be noted that the criteria under review are  
461 relevant, not just to the determination of the fair return in  
462 a given rate case but to the choice of an entire system of  
463 rate regulation applied with reasonable consistency over  
464 an extended period of years. What makes an allowed  
465 return fair in any specific rate case must be its fair  
466 conformity with the general principles applicable also in  
467 other years and under different conditions. Apart from

468 such conformity, the fairness of the allowance at any one  
469 time is simply indeterminate.<sup>37</sup>

470 In summary, the Division recommends that the Commission deliberate carefully  
471 on each adjustment and weigh its merits, not simply on the basis of the legitimacy of  
472 each argument, but also in light of general regulatory and public policy principles that  
473 promote the public interest and the consistency with past and possibly potential future  
474 applications.

475 **RESPONSE TO UIEC WITNESS DR. MALKO — REVENUE REQUIREMENT**

476 **Q: IN HIS REBUTTAL TESTIMONY FOR THE UIEC, DR. MALKO ARGUES THAT THE DIVISION IS RECOMMENDING**  
477 **THAT THE COMMISSION "ALLOW AND APPROVE IMPRUDENT OR UNREASONABLE COSTS TO BE INCLUDED**  
478 **IN RMP'S REVENUE REQUIREMENT AND RATES."<sup>38</sup> IS THE DIVISION IN ANY WAY SUGGESTING OR**  
479 **RECOMMENDING THIS TO THE COMMISSION?**

480 A. No. If this were the Division's position, I would agree with Dr. Malko, it would be a  
481 violation of fundamental regulatory principles. However, in addressing Ms. Beck's  
482 concerns on this issue, I have previously clarified the Division's position and  
483 recommendations to the Commission. The Division is not recommending that the  
484 Commission approve costs that it previously determined were imprudent.

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<sup>37</sup> James C. Bonbright, Principles of Utility Rates, [Columbia University Press: New York, New York], 1961, p. 151.

<sup>38</sup> "Rebuttal Testimony and Exhibits of J. Robert Malko: On Behalf of the Industrial Consumers," Docket No. 10-035-124, June 30, 2011, pp. 1-2, lines 14-19.

485 **Q: DR. MALKO ARGUES THAT YOU HAVE PLACED TOO MUCH EMPHASIS ON THE FINANCIAL INTEGRITY OF THE**  
486 **COMPANY WHILE UNDEREMPHASIZING RATE PAYERS INTERESTS AND TRADITIONAL REGULATORY**  
487 **PRINCIPLES.<sup>39</sup> HOW DO YOU RESPOND?**

488 A: While the Division is concerned with the financial integrity of the Company,<sup>40</sup> I believe  
489 the Division's position in this case belies Dr. Malko's assertion. At the time of filing  
490 surrebuttal testimony, the Division has supported and recommended, either in the first  
491 instance or by adoption, adjustments totaling over \$130 million in revenue requirement  
492 reductions to the Company's case. Additionally, through legal brief, the Division  
493 opposed the Company's motion to bring the deferred net power costs from Docket No.  
494 11-035-46 in to this case. Finally, as clarified herein, I have shown that the Division's  
495 recommendations are consistent with traditional regulatory policy.

496 **Q: DR. MALKO ARGUES THAT YOU ARE "RECOMMENDING A FORM OF 'TOP-DOWN,' AS OPPOSED TO**  
497 **'BOTTOM-UP,' DETERMINATION OF A REVENUE REQUIREMENT FOR A REGULATED UTILITY, RMP. THE**  
498 **TRADITIONAL REGULATORY APPROACH IS TO CONSTRUCT A REVENUE REQUIREMENT FROM THE 'BOTTOM-**  
499 **UP.'" FIRST OFF, DO YOU AGREE WITH DR. MALKO THAT THE "TRADITIONAL" APPROACH IS FROM THE**  
500 **BOTTOM UP?**

501 A: Theoretically, yes I agree with Dr. Malko if by "bottom-up" he means that the parties  
502 look at each cost presented by the Company and determine its reasonableness or

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<sup>39</sup> See Rebuttal Testimony of Dr. Malko, p. 2, lines 22-24.

<sup>40</sup> Utah State Code Ann § 54-4a-6(4) among other things states, "For purposes of guiding the activities of the Division of Public Utilities, the phrase 'just, reasonable, and adequate' encompasses, but is not limited to the following criteria: (a) maintain the financial integrity of public utilities by assuring a sufficient and fair rate of return."

503 prudence. However, practice is usually far different from theory and appears to a blend  
504 of both bottom-up and top-down approaches. For example, in this case, the Office has  
505 stated, and the Division agrees, that a rate decrease is not warranted. Each of our cases  
506 was determined by analyzing individual adjustments, an approach that I consider a  
507 bottom-up approach. While neither the Division nor the Office has drawn a line in the  
508 sand regarding a minimum revenue requirement, some could see in the Division's  
509 approach, as Dr. Malko apparently does, elements of a top-down methodology.  
510 Similarly, interveners other than the Division and the Office typically do not take a  
511 position on an overall revenue requirement but, instead, promote select adjustments  
512 and recommendations. While this latter approach is not wrong or inconsistent with a  
513 bottom-up approach, it does not represent the full development of a bottom-up case<sup>41</sup>  
514 that Dr. Malko appears to advocate.

515 **Q: DR. MALKO ARGUES THAT YOU HAVE NOT APPROPRIATELY CONSIDERED THE ROLE OF ECONOMIC**  
516 **REGULATION. DO YOU AGREE WITH DR. MALKO?**

517 A: No.

518 **Q: AT LINES 114 TO 120, DR. MALKO QUOTES FROM PROFESSOR BONBRIGHT. IS THIS THE FIRST TIME IN**  
519 **THIS CASE THAT DR. MALKO HAS USED THIS QUOTATION?**

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<sup>41</sup> The Division recognizes that interveners interests are often narrowly focused, likely defined by its constituency group, and have limited funds with which to prosecute a rate case.



520 A: No. I believe he used the same quotation in his test year testimony earlier in this case.<sup>42</sup>

521 Q: TO WHAT PURPOSE DOES DR. MALKO USE THIS PARTICULAR QUOTE?

522 A: I am not sure, since the quotation does not accurately represent Professor Bonbright's  
523 conclusion on the role of regulation as a substitute for competition. Rather this  
524 quotation is part of Professor Bonbright's framing a question to be systematically  
525 debated. To see this, consider Professor Bonbright's statement in the context of the  
526 entire paragraph from which Dr. Malko quotes:

527 Before turning in the next chapter to those  
528 unorthodox principles of rate making often called "social  
529 theories," ***we may consider the merits of a general***  
530 ***standard*** of reasonable rates that has received at least  
531 verbal support both from public service commissions and  
532 from public utility spokesmen. This is the standard of the  
533 hypothetical competitive price. Regulation, it is said, is a  
534 substitute for competition. Hence its objective should be  
535 to compel a regulated enterprise, despite its possession of  
536 complete or partial monopoly, to charge rates  
537 approximating those which it would charge if free from  
538 regulation but subject to the market forces of competition.

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<sup>42</sup> See "Surrebuttal Testimony and Exhibits of J. Robert Malko on Test Period Selection," Docket No. 10-035-124, March 21, 2011, lines 28-34.

539 In short, regulation should be not only a substitute for  
540 competition, but a closely imitative substitute.<sup>43</sup>

541 Since Professor Bonbright is suggesting that we "consider the merits" of  
542 competitive pricing as a standard for reasonable rates, I fail to see any support for Dr.  
543 Malko's arguments from this particular quotation.

544 **Q: WHAT CONCLUSIONS DOES PROFESSOR BONBRIGHT REACH REGARDING THE ROLE OF REGULATION AS A**  
545 **SUBSTITUTE FOR COMPETITION?**

546 **A:** In the same chapter from which Dr. Malko quotes, Professor Bonbright states,

547 Regulation, then, as I conceive it, is indeed a  
548 substitute for competition; and it is even a partly imitative  
549 substitute. But so is a Diesel locomotive a partly imitative  
550 substitute for a steam locomotive, and so is a telephone  
551 message a partly imitative substitute for a telegraph  
552 message. What I am trying to emphasize by these crude  
553 analogies is that the very nature of a monopolistic public  
554 utility is such as to preclude an attempt to make the  
555 emulation of competition very close.<sup>44</sup>

556 **Q: DO YOU AGREE WITH DR. BONBRIGHT'S CONCLUSION?**

557 **A:** Yes. I agree that regulation is a substitute for competition, but not necessarily a  
558 particularly close imitative one.

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<sup>43</sup> James C. Bonbright, p. 93. (Emphasis added)

<sup>44</sup> James C. Bonbright, p. 107.

559 **Q: WHAT REASONS DOES PROFESSOR BONBRIGHT GIVE FOR HIS QUALIFIED CONCLUSION?**

560 A: As I stated earlier, the statement Dr. Malko quotes frames a debate that Professor  
561 Bonbright explores in the remainder of the chapter.<sup>45</sup> In that debate, Professor  
562 Bonbright discusses six competitive pricing principles that, if closely emulated, would  
563 pose particular problems for regulation. Indeed, I believe that a close emulation under  
564 these conditions would require a fundamental departure from traditional regulation,<sup>46</sup>  
565 and may even require legislative action.

566 **Q: WHAT SIX PRINCIPLES DOES PROFESSOR BONBRIGHT DISCUSS?**

567 A: The six conditions or principles are:

- 568 1. Rates Should Correspond to Production Costs Only Under Conditions of  
569 Equilibrium;
- 570 2. If Market-Clearing Rates Yield Excess Profits, a Commission Should Compel  
571 the Expedient Enhancement of Plant Capacity;
- 572 3. Rates Would be Required to Equal Both Average Costs and Marginal Costs;
- 573 4. The Relevant Costs Would be Future Costs, Not "Sunk" Costs;
- 574 5. All Rate Discrimination Would be Outlawed; and
- 575 6. The Rates of Return Should Correspond to the Profit-and-Loss Differentials of  
576 a Competitive Economy.

577 **Q: CAN YOU EXPLAIN THE DIFFICULTIES THESE PRINCIPLES POSE FOR REGULATION?**

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<sup>45</sup> James C. Bonbright, Chapter VI, pp. 93-108.

<sup>46</sup> See James C. Bonbright, p. 103.

578 A: Professor Bonbright provides a partial explanation for each principle. However,  
579 Professor Bonbright does not explain all of the underlying economic theory necessary  
580 for a full understanding of the difficulties inherent in regulation emulating competitive  
581 pricing closely. A complete explanation, however, would take a considerable amount of  
582 space and time. While I believe these issues are important, I will leave the space and  
583 time to another time and place. However, let me briefly explain one problem as  
584 discussed by Professor Bonbright under the second principle: If Market-Clearing Rates  
585 Yield Excess Profits, a Commission Should Compel the Expedient Enhancement of Plant  
586 Capacity.<sup>47</sup>

587 Under the theory of competitive pricing, if firms are earning excess profits, other  
588 firms enter the market to take advantage of the prevailing market conditions. As firms  
589 enter the market, market supply expands, driving prices down and eliminating the  
590 excess profits. However, under the theory of monopoly pricing, the unregulated  
591 monopoly would have no incentive to increase output knowing that the expansion  
592 would tend to eliminate the excess profits. Therefore, in order to emulate closely the  
593 competitive outcome,<sup>48</sup> regulators would need to determine the level of output

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<sup>47</sup> James C. Bonbright, p. 99.

<sup>48</sup> The notion of the competitive outcome relative to the monopoly is a topic often discussed in economic texts. However, few of those texts point out the implicit assumptions that the transition from the monopoly to competition imposes no loss of efficiency. In other words, the sum of the cost structures of the resulting competitive firms is equal to the total cost structure of the original monopoly firm. A condition that is doubtful if existing economies of scale or scope drove the creation of the monopoly in the first instance. Even if the conservation of efficiency were true, note the competitive outcome would leave the monopoly earning excess

594 necessary to eliminate the excess profits and compel the regulated monopoly to expand  
595 its investments to achieve that output level. In short, regulators would become de-facto  
596 managers of the utility, a practice the Commission has consistently rejected

597 **Q: DOES THIS MEAN THAT THE THEORY OF COMPETITIVE PRICING HAS LITTLE OR NO ROLE TO PLAY IN**  
598 **REGULATION?**

599 **A:** No, just the opposite. I believe a thorough understanding of the theory of competitive  
600 pricing and its implications is essential to regulation. Professor Bonbright puts it this  
601 way:

602 Lest the reader of this chapter gain the impression  
603 that it is intended to deny the relevance of any tests of  
604 reasonable rates derived from the theory or the behavior  
605 of competitive prices, let me state my conviction that no  
606 such conclusion would be warranted. On the contrary, a  
607 study of price behavior both under conditions of  
608 competition and under actual conditions of mixed  
609 competition is essential to the development of sound  
610 principles of utility rate control. Not only that: any good  
611 program of public utility rate making must go a certain  
612 distance in accepting competitive-price principles as  
613 guides to monopoly pricing.<sup>49</sup>

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profits. Thus, the six issues discussed by Professor Bonbright are not independent of one another but must be addressed simultaneously.

<sup>49</sup> James C. Bonbright, pp. 106-107.

614 I think it would behoove the Commission to explore the "distance in accepting  
615 competitive pricing principles" that it is willing to travel; or the degree to which  
616 regulation in Utah should serve as a substitute for competition.

617 **Q: DO YOU HAVE FURTHER COMMENTS ON DR. MALKO'S REBUTTAL TESTIMONY?**

618 A: No. The basis of Dr. Malko's remaining arguments is the erroneous assertion that the  
619 Division is recommending that the Commission allow and approve for recovery  
620 imprudent costs. I have already explained that this is not the Division's position and,  
621 therefore, there is no need to address individually the remaining points in Dr. Malko's  
622 rebuttal testimony. Silence on these issues does not mean I necessarily agree with all  
623 the underlying principles asserted by Dr Malko in these arguments.

624 **Q: DO YOU HAVE ANY FINAL COMMENTS OR RECOMMENDATIONS?**

625 A: Yes. Dr. Malko refers to the drawbacks of rate of return regulation. Likewise, before,  
626 pursuing a form of regulation that is a close imitative substitute for competition, the  
627 Commission should thoroughly understand the consequences and limitations of such an  
628 approach. Given the apparent confusion or controversy over the role and implications  
629 of economic theory in regulation, I recommend that the Commission consider issuing a  
630 white paper on the matter. In preparation of the paper, the Commission may want to  
631 consider holding a series of interactive technical conferences lead by an independent  
632 third party.

633 Q: DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY?

634 A: Yes, it does.