

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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<b>In the 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</b>	)	
	)	
	)	<b><u>Docket No. 09-035-23</u></b>
	)	
	)	<b><u>DPU Exhibit No. 5.0SR</u></b>
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**Surrebuttal Testimony of**

**Joseph Mancinelli  
Witness 5.0SR**

**For the Division of Public Utilities**

**Department of Commerce**

**State of Utah**

**November 30, 2009**

1 **I. INTRODUCTION**

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

3 A. My name is Joseph Mancinelli. I am employed by R. W. Beck as Vice President of the  
4 Management and Economics Consulting practice.

5 **Q. Have you submitted Rebuttal and Direct Testimony in this proceeding?**

6 A. Yes. I submitted Direct Testimony on October 8, 2009 and Rebuttal Testimony on  
7 November 12, 2009.

8 **Q. What is the purpose of your Surrebuttal Testimony?**

9 A. In my surrebuttal testimony I will address the following issues:

- 10 1. In Mr. Paice's rebuttal testimony he takes exception to my comments concerning the  
11 ease of use and transparency of the Rocky Mountain Power (RMP or Company) Cost of  
12 Service (COS) model. I will clarify my comments pertaining to the RMP COS model  
13 and the Logan Model.
- 14 2. Mr. Paice, Mr. Brubaker, and Mr. Higgins all take general exception to my proposed  
15 recommendations related to functionalization, classification and allocation adjustments  
16 to the RMP model for a variety of reasons. Arguments used by these witnesses to  
17 refute my recommendations can be categorized as follows:
- 18 a. Use of better information. RMP may have better information to functionalize,  
19 classify and allocate costs at the Company level, therefore, it is justified to change  
20 assumptions surrounding cost causation in the RMP COS as compared to the  
21 Jurisdictional Allocation Model (JAM). Mr. Paice makes this argument and points

22 to the MSS allocator as an example. I will clarify my functionalization and  
23 classification proposal and re-examine the MSS allocator.

24 b. Lack of analysis. Mr. Brubaker argues that analysis must support any changes to  
25 cost of service. He confuses the proper calculation of allocation factors with the  
26 proper application of such factors. I will explain the difference and clarify the  
27 scope of my testimony.

28 c. Different Data. Mr. Brubaker argues that class usage data at the Company level  
29 differs substantially from the jurisdictional level. This difference warrants different  
30 cost of service treatment between the RMP COS Model and the JAM model. I will  
31 explain why this may be true with respect to the application of class allocation  
32 factors but not so when functionalizing and classifying costs.

33 d. Cost allocation issues have already been decided. Each witness points to a variety  
34 of prior Commission rulings or working group recommendations as the basis for not  
35 making changes to the RMP COS. I will show that these prior rulings and/or  
36 decisions do not prohibit making continued improvements to the RMP COS model.

37 3. Mr. Paice, Mr. Brubaker, and Mr. Higgins all take general exception to my  
38 recommendations with respect to the classification and allocation of PacifiCorp wind  
39 resources using many of the arguments described above. Mr. Paice and Mr. Higgins  
40 point to prior decisions of the Multi-State Process (MSP) working group recommending  
41 use of the F10 – Coincident Peak, System factor (F10) for all production and  
42 transmission assets. The F10 factor classifies generation fixed costs as 75% demand-  
43 related and 25% energy-related compared to my recommendation of classifying wind

44 assets as 100% energy-related. These witnesses, therefore, argue that changes to the  
45 classification and allocation of costs related to wind resources cannot be made without  
46 the MSP working group approval.. Additionally, Mr. Brubaker claims that there is no  
47 basis for changing wind allocation factors without supporting analyses. Taking this  
48 feedback into consideration, I will clarify my recommendation with respect to wind.

49 **RMP COS MODEL COMPARED TO THE LOGAN MODEL**

50 **Q. Mr. Mancinelli, in Mr. Paice's rebuttal testimony he takes exception to your**  
51 **comments regarding the ease of use and transparency of the RMP cost of service**  
52 **model and states that the RMP model is a useful tool to those who are trained**  
53 **properly. How do you respond to his comments?**

54 A. I want to make it clear that my comments related to the RMP cost of service model (RMP  
55 COS model) are not related to training. I attended, either in person or by phone, all three of  
56 the Company training sessions that were conducted between June 11, 2009 and August 6,  
57 2009. I found the sessions helpful in that they furthered my understanding of model logic  
58 and operation. Additionally, at that time, all parties were exposed to Dr. Logan's cost of  
59 service model (Logan model) which very closely replicates RMP model results. Upon  
60 review of the Logan model by RMP, RMP indicated that the model was an acceptable  
61 alternative to the RMP COS model. My review of Dr. Logan's model compared to the  
62 RMP cost of service model indicated that the models are designed and operated  
63 considerably different yet rendered similar results. Both the Logan model and the RMP  
64 COS model are Excel based, however the RMP COS model contains numerous macros  
65 which manipulate data through various algorithms and create multiple reports that contain

66 pasted numeric values with no traceable logic. Conversely the Logan model contains no  
67 macros and all model logic used to functionalize, classify and allocate the RMP revenue  
68 requirement is easily visible and traceable. DPU Exhibit 5-1SR shows a simplified one-  
69 line diagram of the RMP COS model and the Logan Model. As indicated in these  
70 diagrams, the Logan model logically follows the cost allocation process from the JAM to  
71 the class level, Schedule Allocation Model (SAM) in a straight forward manner. One can  
72 trace logic throughout the model without multiple macro iterations as required by the RMP  
73 COS model. The model structure of the RMP COS model prevents a comprehensive  
74 review of model logic short of recreating the model as Dr. Logan has. Both models render  
75 similar results but through very different methods.

76 With this in mind, I believe the Logan model is a better tool for the purposes of reviewing  
77 and making adjustments to the RMP cost of service in a regulatory environment. I agree  
78 with RMP's assertion that the RMP COS model has a variety of uses internal and external  
79 to the Company. For RMP, the COS model is the tool of choice. However, in a public  
80 proceeding such as this, the added transparency gained by the Logan model is highly  
81 valuable.

82 **Q. Mr. Paice takes exception to your direct testimony pages 6-7 lines 97-110 particularly**  
83 **with respect to the following statement: "In the RMP COS model, the explicit**  
84 **classification of cost is not directly identified at the functional level and could be**  
85 **considered skipped." Mr. Mancinelli, could you please clarify your statement?**

86 A. Yes. Clearly the RMP COS model functionalizes and classifies costs, although cost  
87 classification is presented in the "Func Study" tab in the RMP COS model for only the

88 generation and transmission functions but not so for the distribution, retail and  
89 miscellaneous functions. Generation and transmission function costs are classified between  
90 demand and energy. Typical distribution function costs are classified as both demand-  
91 related and customer-related but this information is not included in the “Func Study” tab.  
92 My skipping comment refers to the fact that allocation of the revenue requirement to the  
93 rate classes is performed in the “Hot Sheet” tab for each unbundled function (generation,  
94 transmission, distribution, etc.) as shown in DPU Exhibit 5-1SR. The “Hot Sheet” relies  
95 only on the RMP functionalized revenue requirement by FERC account as calculated in the  
96 “Func Study” tab. As a result, there is no explicit recognition of the underlying cost  
97 classification in the “Hot Sheet”. The recognition of cost classification is implicit within  
98 the allocation factors used for the various cost accounts. In certain cases, such as the  
99 generation and transmission function, where the F10 factor is used heavily, the underlying  
100 cost classification associated with the F10 factor is easy to discover (75% Demand and  
101 25% Energy). However, when other allocation factors are used, it is very difficult to  
102 discover this information, as is the case with many distribution function cost accounts.

103 **CONSISTENCY OF JAM AND RMP COS ALLOCATION METHODS**

104 **Q. Mr. Mancinelli, in your earlier testimony you list four arguments that various**  
105 **witnesses have used to suggest that the application of cost of service principals can**  
106 **differ from the JAM to the RMP COS. The first argument is related to better**  
107 **information, as is made by Mr. Paice of RMP. Mr. Paice states that the RMP cost of**  
108 **service does not have to agree with the JAM if better information exists. Do you agree**  
109 **with this statement?**

110 A. With respect to the functionalization and classification of costs, I do not agree. With  
111 respect to the application of allocation factors, there can be some flexibility within the  
112 boundaries of cost classification.

113 **Q. Please explain further.**

114 A. A cost of service analysis should always consider specific information that would improve  
115 the end result. Under optimal circumstances, maximum use of direct assignment would  
116 yield the best possible cost of service result. However, the ability to directly assign costs to  
117 specific functions and specific customer classes is limited under accounting methodologies.  
118 Therefore a cost of service analysis must contain numerous allocations to assign costs to  
119 the various rate classes. For PacifiCorp this is done in two steps, first at the jurisdictional  
120 level in the JAM, and second, at the class level in the RMP COS model. Given that the  
121 revenue requirement input into the RMP COS model is nothing more than an allocation of  
122 jurisdictional costs, I recommend that the functionalization and classification of costs in  
123 the JAM and RMP COS models remain as consistent as possible. Within the limits of the  
124 various cost classifications (demand, energy, customer, etc.), it is appropriate to allocate  
125 costs to the classes using different approaches that make sense for RMP customers.  
126 However, changing the functionalization and classification of costs in the RMP COS  
127 compared to the JAM does not render a better result but only shifts costs in a manner  
128 inconsistent with cost incurrence as stipulated by JAM. Mr. Paice indicates that such a  
129 shift can occur if there is better information at the Company level compared to the  
130 jurisdictional level. Further, he describes the source information supporting the  
131 functionalization and classification of costs in the rebuttal testimony page 28, lines 642-

132 661. Further, Mr. Paice in his rebuttal testimony, specifically discusses Account 154-  
133 Material and Supplies as an example of where better information justifies use of an  
134 allocation method that is inconsistent with JAM functionalization factors. To illustrate my  
135 point, I have developed DPU Exhibit 5-2SR which compares the functionalization,  
136 classification and allocation of Account 154-Material and Supplies between the JAM and  
137 RMP COS. As shown in the exhibit, there is little cost of service consistency between the  
138 two models. It makes little sense that material and supply costs functionalized as  
139 generation and classified as energy in the JAM as is sub account 154 SE are then  
140 functionalized as generation, transmission, and distribution in the RMP COS and then  
141 classified and allocated to the rate classes based on gross plant. By doing so the cost class  
142 responsibility is out of sync with the determination of the revenue requirement. Either the  
143 JAM or the RMP COS must be adjusted to properly reflect the correct underlying  
144 functionalization and classification information as contained in the business warehouse  
145 database. .

146 **Q. A second argument against consistency in allocation methodology between the JAM**  
147 **and RMP COS model pertains to lack of analysis or inconsistencies surrounding the**  
148 **development of certain allocation factors. Mr. Brubaker points to significant**  
149 **discrepancies in the development of jurisdiction demand and class demand allocation**  
150 **factors in the JAM and RMP COS Model. Given these discrepancies, Mr. Brubaker**  
151 **proposes that no changes in cost of service methodology be made in the RMP COS**  
152 **model until these differences have been resolved. What is your response to Mr.**  
153 **Brubaker's position?**



154 A. Getting the cost of service correct is a matter of accurately developing various allocation  
155 factors and then properly applying these allocation factors to all aspects of the revenue  
156 requirement. Mr. Brubaker is comingling these two concepts and arguing that issues  
157 surrounding the proper calculation of allocation factors should override any discussion of  
158 proper application. I disagree with this reasoning as the application of allocation factors is  
159 independent of its derivation and should be evaluated as such. For example, it is  
160 appropriate to allocate the demand-related costs associated with generation assets on the  
161 basis of coincident peak. This is a fundamental cost causation principle and should be  
162 applied correctly in a cost of service study even if the calculation of coincident peak by  
163 class may be in error. In my evaluation of the RMP COS model, I focused exclusively on  
164 the application of existing allocation factors and did not review the underlying calculations.

165 **Q. A third argument against consistency in allocation is the fact that there is different**  
166 **data at the jurisdictional level compared to RMP customer class level. Mr. Brubaker**  
167 **describes these differences related to monthly coincident peaks. He describes**  
168 **differences between jurisdictional demands compared to class demands. How can you**  
169 **reconcile this fact with your testimony?**

170 A. Remember that the RMP revenue requirement is nothing more than an allocation of  
171 PacifiCorp company costs to the various jurisdictions. The RMP revenue requirement is  
172 not a direct assignment reflecting actual RMP costs. Therefore, the RMP Test Year  
173 revenue requirement is derived based on the underlying cost causation of RMP ratepayers  
174 as reflected in the JAM allocators. If RMP deviates from the functionalization,  
175 classification and allocation of PacifiCorp costs as dictated in JAM, then the relationship

176 between cost causation and cost responsibility is broken. As I have said earlier in my  
177 testimony, deviation from JAM allocators renders a different answer but not a better one.  
178 With this in mind, I do believe that it is acceptable to use different class allocation factors  
179 at the class level compared to the jurisdictional level as a matter of policy as long as the  
180 allocation factors honor the underlying cost classification. For example, the RMP system  
181 has a pronounced summer peak. Allocation of demand related cost in JAM are based on  
182 the jurisdiction's annual contribution to the PacifiCorp system peak (12 CP). Using the 12  
183 CP approach in the RMP COS may align well with JAM but does not consider seasonality,  
184 which is more pronounced on the RMP system than the greater PacifiCorp system. Use of  
185 the 12 CP in the RMP COS does not accentuate seasonality in the cost of service analysis  
186 and the corresponding rates. To improve the summer/winter cost differential it may be  
187 appropriate to allocate demand related costs in the RMP COS model based on a 3 or 4 CP.  
188 Although strictly deviating from the JAM, the alternative demand allocation promotes a  
189 desired end result giving consideration to customer usage characteristics specific to the  
190 RMP system.

191 **Q. A fourth argument against consistency in allocation is the fact that allocation issues**  
192 **between the JAM and RMP COS model have already been decided by the**  
193 **Commission in prior rulings, or have been previously agreed to by all parties**  
194 **participating in the COS review committee. Mr. Mancinelli how do you respond to**  
195 **these statements?**

196 A. In the rebuttal testimony of Mr. Paice, he refers to Proposal No. 9 from the December 15,  
197 2005 Utah Cost of Service and Rate Design Task Force. The task force achieved general

198 consensus regarding the use of the F10 Factor in lieu of seasonal allocation factors  
199 (presumable F14-Season System Generation – CT & F16-Season System Generation -  
200 Cholla) used prior to that time.

201 In the rebuttal testimony of Mr. Chernick, he refers to the genesis of the JAM allocation  
202 factors and suggests that the JAM allocators were derived in a manner to reach consensus  
203 among the various states participation in the MSP and do not necessary reflect cost  
204 causation. Additionally, Mr. Chernick references Docket 97-035-01 (Commission Report  
205 and Order 113) issued on March 4, 1999 which states with respect to allocation issues:

206 “Many cost allocation issues arise in the Docket. Submitted cost-of-service  
207 studies reveal the importance of them in surprising shifts in class cost-of-  
208 service responsibility, when compared to the results of earlier studies. With  
209 certain exceptions, the issues we identify are of a technical rather than a  
210 policy nature, making them good candidates for the technical workshop  
211 approach we envision.

212  
213 The very basis for task force evaluation of allocations must be that all  
214 functionalization, classification, and allocation decision are correct. This  
215 means that the decisions flow from an acceptable characterization of the  
216 engineering economics of integrated, single system operation. We expect  
217 the task force to assure us that this is so. We also want to insure that these  
218 fundamental cost-of-service decisions are applied consistently at  
219 interjurisdictional and class levels. The task force therefore should address  
220 changes to interjurisdictional allocation method that may be necessary.  
221 Moreover, we see no reason why the added stop of functionally unbundling  
222 cost of service should alter the apportionment of cost of service to classes  
223 that results from a properly conducted, but not unbundled, cost-of-service  
224 study. In our view, these presumptions must hold unless good and sufficient  
225 cause shows otherwise.”  
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227 In the rebuttal testimony of Mr. Brubaker, he refers to the Docket 09-035-23 Order dated  
228 October 19, 2009 that (i) requested RMP and other interested parties to evaluate the  
229 continued use of the 2004 Stipulation terms in the development of the Utah revenue

230 requirement, and (ii) whether there are alternatives to the 2004 Stipulation such as the  
231 Rolled-in method. This order was subsequently stayed on November 9, 2009. Mr. Brubaker  
232 argues that,

233 “While the ultimate resolution of these issues cannot currently be known,  
234 the fact that the Commission has raised these issues about the current  
235 jurisdictional allocation model should give one further cause for concern,  
236 and reason to pause, in the extension of the application of this methodology  
237 even further for use in allocation between customer classes.”  
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239 Each witness does a good job of explaining the rationale behind the use of the current  
240 allocation factors in the RMP COS model. However, I make the following observations:

- 241 1. Commission Order 113 states, “We also want to insure that these fundamental cost-of-  
242 service decisions are applied consistently at interjurisdictional and class levels.” The  
243 Order allows deviation of this principal only if there is good and sufficient cause  
244 showing otherwise. The tone of the Commission Order emphasizes the proper  
245 application of cost of service principles and consistency between the JAM and the RMP  
246 COS to the greatest extent possible. Based on my review of the current cost allocation  
247 approach in both the JAM and RMP COS models, I believe that certain costs are out of  
248 alignment given assumptions in the JAM model. In 1999 the Commission suggested a  
249 technical workshop to discuss and review cost-of-service issues. I believe another  
250 technical workshop is warranted to review the cost of service process and determine if  
251 the current cost of service methodology remains in alignment with the cost of service  
252 principals described in Order 113.
- 253 2. Mr. Paice justifies the use of the F10 factor for all generation and transmission fixed  
254 costs based on the December 15, 2005 Utah Cost of Service and Rate Design Task

255 Force, Proposal No. 9 (Proposal 9). However, a review of comments related to the  
256 recommendation of Proposal No. 9 indicated that several participants had concerns  
257 regarding the effectiveness of the proposed F10 factor in creating a seasonal cost  
258 differential that would in-turn further support seasonal rates. Examining the impact of  
259 applying a F10 factor on seasonal generation identified in JAM, it is easy to determine  
260 that the application of the F10 factor on these generation resources actually reduce the  
261 seasonal cost differential rather than improve the situation. This is shown in the  
262 following tables which compare the seasonal allocation of Combustion turbines and  
263 Chollas/APS in the JAM with that used in the RMP COS:  
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**Jurisdictional Allocation Model – Allocation of Summer CTs – SSGCT Factor  
(Total System) Source: Paice Direct Testimony and Supporting Exhibits**

<b>Month</b>	<b>Demand</b>	<b>Energy</b>	<b>SSGCT Factor</b>
January	0%	0%	0%
February	0%	0%	0%
March	0%	0%	0%
April	0%	0%	0%
May	0%	0%	0%
June	0%	0%	0%
July	37.1%	37.8%	37.30%
August	38.8%	39.0%	38.83%
September	24.1%	23.2%	23.88%
October	0%	0%	0%
November	0%	0%	0%
December	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

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**RMP COS Model – Allocation of Summer CTs Using F10 Factor  
(Total System) Source: Paice Direct Testimony and Supporting Exhibits**

<b>Month</b>	<b>Demand</b>	<b>Energy</b>	<b>F10 Factor</b>
January	11.1%	9.8%	10.8%
February	10.5%	9.8%	10.3%
March	8.1%	8.4%	8.2%
April	6.7%	7.9%	7.0%
May	7.7%	7.8%	7.7%
June	9.1%	8.5%	8.9%
July	7.8%	8.4%	8.0%
August	8.1%	7.5%	8.0%
September	6.5%	7.8%	6.8%
October	6.9%	7.6%	7.0%
November	7.4%	7.9%	7.5%
December	10.1%	8.6%	9.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100%</b>

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**Jurisdictional Allocation Model – Allocation of Cholla & APS – SSGCH Factor  
(Total System) Source: Paice Direct Testimony and Supporting Exhibits**

Month	Demand	Energy	SSGCH Factor
January	14.7%	15.2%	14.8%
February	10.8%	10.3%	10.7%
March	4.4%	4.6%	4.4%
April	8.1%	8.3%	8.1%
May	6.0%	5.9%	6.0%
June	4.0%	3.8%	3.9%
July	4.0%	4.0%	4.0%
August	4.0%	3.9%	4.0%
September	6.1%	5.7%	6.0%
October	10.0%	10.5%	10.1%
November	13.4%	12.8%	13.2%
December	14.5%	15.1%	14.7%
Total	100%	100%	100%

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**RMP COS Model – Allocation of Cholla & APS Using F10 Factor  
(Total System) Source: Paice Direct Testimony and Supporting Exhibits**

Month	Demand	Energy	F10 Factor
January	11.1%	9.8%	10.8%
February	10.5%	9.8%	10.3%
March	8.1%	8.4%	8.2%
April	6.7%	7.9%	7.0%
May	7.7%	7.8%	7.7%
June	9.1%	8.5%	8.9%
July	7.8%	8.4%	8.0%
August	8.1%	7.5%	8.0%
September	6.5%	7.8%	6.8%
October	6.9%	7.6%	7.0%
November	7.4%	7.9%	7.5%
December	10.1%	8.6%	9.8%
Total	100.0%	100.0%	100%

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282 As shown in the above tables, application of the F10 factor on the seasonal CTs spreads  
283 demand related costs to all months of the year rather than the summer season when  
284 these generation assets operate and provide maximum value to the system. Application  
285 of the F10 factor on Cholla ignores that this resource has a greater seasonal weighting  
286 during non-summer months in the JAM. Use of the F10 factor in the RMP COS un-  
287 winds this seasonality and, in effect, spreads Cholla costs equally over the year.

288 3. In a similar fashion, applying the F10 factor to wind produces an erroneous result as  
289 wind does not provide reliable capacity on the system as I describe in my direct  
290 testimony. Given the Commissions directive in Order 113 as described above, I do not  
291 believe that there is good and sufficient cause to treat wind like other carbon based  
292 generation resources. Therefore, the blind use of the F10 factor is unwarranted.

293 4. Mr. Chernick and Mr. Higgins suggest that any changes to generation, classification  
294 and allocation must be addressed at the MSP. I agree with these comments as the JAM  
295 must align with the RMP COS. The JAM dictates cost of service methodology in the  
296 RMP COS.

297 5. Mr. Brubaker's assertion that the Commission's concerns pertaining to revised protocol  
298 is justification for not addressing allocation methodology in the JAM and RMP COS  
299 models is irrelevant. The Docket 09-035-23 Order on MSP does not address intra-  
300 jurisdictional cost allocation issues and should not prevent the various parties from  
301 discussing such in this proceeding.

302 In closing, I recommend that the Commission appoint a task force to review, update and  
303 revise as necessary allocation issues that exist between the JAM and the RMP COS.



304 **ALLOCATION OF WIND RESOURCES**

305 **Q. Mr. Mancinelli, in your direct testimony you recommend classifying wind resources**  
306 **as 100% energy-related, is that correct?**

307 A. Yes. I came to this conclusion given the fact that wind is not a reliable source of capacity.

308 **Q. Based on your review of rebuttal testimony, do any of the witnesses in this proceeding**  
309 **provide an alternative cost based method for classifying wind resources?**

310 A. Only one. Mr. Higgins suggests that wind resources may be classified as 20% demand-  
311 related and 80% energy-related based on treatment of these types of resources in the 2004  
312 PacifiCorp IRP. Mr. Higgins suggests that such a classification would be consistent with  
313 the decisions made by RMP at the time of the investment.

314 **Q. Do you agree with Mr. Higgins?**

315 A. Partially. I agree that planning considerations should be taken into account when  
316 determining the classification of wind resources. However, operational considerations  
317 must also be considered. In the direct testimony of Mr. Gregory Duvall, on page 17 lines  
318 380 – 383, he states “The shape of a wind energy delivery pattern is different than the  
319 delivery patterns of other generation resources. Because wind is intermittent and variable,  
320 so is wind generation. Generation from wind resources is both non-dispatchable and  
321 uncertain.” It is true from a planning perspective that wind provides a minimal capacity  
322 value which is derived through the consideration of diversity. In other words, at any given  
323 time, somewhere on the PacifiCorp system the wind is blowing and a wind turbine is  
324 producing power. However, as Mr. Duvall states, at any instance, wind is not a reliable  
325 source of capacity. To firm up the PacifiCorp wind resources, PacifiCorp must backup

326 wind generation with wind integration services. Both Mr. Duvall and Mr. Higgins discuss  
327 this in detail in their respective direct and rebuttal testimonies as they debate the  
328 appropriate cost of these services. However, from an operational perspective, wind  
329 integration services are 100% demand-related as this service provides a source of  
330 dependable and dispatchable capacity associated with wind turbines, which provide energy  
331 and are classified as 100% energy-related. Giving more weight to a planning perspective,  
332 it may be a reasonable compromise to classify a small component of wind as demand-  
333 related but I believe the operational consideration is important and it is more appropriate to  
334 classify wind resources as 100% energy-related.

335 **Q. Mr. Paice and Mr. Higgins suggest that the F10 factor should be applied to wind**  
336 **resources consistent with Proposal 9 recommendations. How do you respond to their**  
337 **suggestion?**

338 A. As I mentioned earlier in my comments pertaining to prior Commission ruling and related  
339 task force decisions, I believe the most important consideration is to appropriately allocate  
340 costs based on their usefulness and value to customers. Clearly, wind is a renewable  
341 energy resource and therefore should be classified as energy-related and allocated to  
342 classes based on class energy usage. Arbitrarily applying the F10 factor that classifies cost  
343 as 75% demand-related and 25% energy-related violates cost of service principles.

344 **Q. Mr. Mancinelli, do you have any other comments pertaining to the allocation of wind**  
345 **resources?**

346 A. Yes. Mr. Chernick in his rebuttal testimony pointed out that the classification and  
347 allocation of wind resources should consider the underlying investments and related

348 benefits. As such, he has suggested that associated cost and benefits associated with wind,  
349 specifically renewable energy credits (REC) and green tag revenues, should be classified  
350 and allocated consistently with wind resources. I agree with Mr. Chernick on this issue.

351 **COS CHANGES REFLECTED IN RMP REBUTTAL TESTIMONY**

352 **Q. Mr. Mancinelli are you aware of any significant changes to the RMP COS analysis as**  
353 **compared to the analysis filed under the Companies direct testimony?**

354 A. Yes. RMP has made several changes to the revenue requirement and associated allocation  
355 factors in their rebuttal testimony. These changes are mentioned in Mr. Paice's rebuttal  
356 testimony on pages 2-3, lines 29-55 and Mr. Thornton's rebuttal testimony pages 7-8, lines  
357 143-153. Both Mr. Paice and Mr. Thornton describe changes made to class coincident  
358 peak calculations in review and response of the testimony of Mr. Nunes, Mr. Brubaker and  
359 others.

360 **Q. What was the overall impact of RMP's revised cost of service calculation on the**  
361 **various rate classes?**

362 A. The impact was significant as shown in the following table.

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**COS Compared to Current Class Revenues**

(A)	(B)	(C)	(D)	(C-D)
Schedule No.	Class	Paice Rebuttal Indicated Rate Change Compared to COS	Paice Direct Indicated Rate Change Compared to COS	Difference
1	Residential	4.01%	0.60%	3.41%
6	General Service - Large	1.23%	3.99%	-2.76%
8	General Service - Over 1 MW	3.33%	6.11%	-2.78%
7,11,12,13	Street & Area Lighting	-15.95%	-15.19%	-0.76%
9	General Service - High Voltage	8.44%	11.87%	-3.43%
10	Irrigation	20.64%	21.68%	-1.04%
12TS	Traffic Signals	6.25%	8.40%	-2.15%
12OL	Outdoor Lighting	-43.90%	-43.03%	-0.87%
23	General Service - Small	0.52%	4.60%	-4.08%
25	Mobile Home Parks	4.14%	0.42%	3.72%
SpC	Customer A - SpC	20.03%	24.67%	-4.64%
SpC	Customer B - SpC	29.84%	39.64%	-9.80%
SpC	Customer C - SpC	-0.97%	16.81%	-17.78%
	Total	3.80%	4.63%	-0.83%

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The cost of service for the residential class increased substantially whereas virtually all other classes received a reduction in their cost of service. The assumptions used by RMP in the rebuttal cost of service analysis shifts costs to the residential class from other rate classes.

**Q. Mr. Mancinelli did you examine the possible causes for the significant cost shift to the Residential class?**

A. Yes, I looked at changes in the RMP COS with respect to revenue requirements and allocation factors. I have found that the RMP revenue requirement was adjusted downward by approximately \$12M as shown in the following table.

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**Revenue Requirement Comparison  
RMP Filed Rebuttal versus RMP Filed Direct**

(A)	(B)	(C)	(B-C)	(D/C)
Description	Paice Rebuttal Testimony Utah Jurisdiction	Paice Direct Testimony Utah Jurisdiction	Difference (\$)	Difference (%)
Return on Rate Base @ Target ROR	387,509,341	392,817,618	(5,308,271)	-1.35%
Total Operating Expenses Adjusted for Taxes	1,527,712,987	1,524,548,588	3,164,398	0.21%
Revenue Credit	(414,447,805)	(406,455,366)	(7,992,439)	1.97%
Total Target Revenue Requirements	1,500,774,529	1,510,910,841	(10,136,312)	-0.67%
Class Revenue	<u>1,445,813,156</u>	<u>1,444,027,176</u>	1,785,980	0.12%
Increase/(Decrease) Required to Earn Target Rate of Return	54,961,373	66,883,665	(11,922,292)	-17.83%
Percent %	3.80%	4.63%	-0.83%	-17.93%

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380 This reduction in the RMP revenue requirement, although important, does not explain the  
381 significant cost shift to the Residential class observed in the Company's revised cost of  
382 service. Holding all things equal, one would expect a reduction in the revenue requirement  
383 to benefit all rate classes. Therefore, such a cost shift must be attributed to changes in class  
384 allocation factors. Given the testimony of Mr. Thornton and the proposed adjustments to  
385 class coincident peak, I focused my review on demand allocation factors in the revised  
386 RMP COS model compared to the COS model as originally filed. This comparison  
387 indicated a significant change in class monthly coincident peaks that explained a large  
388 portion of the cost shift to the residential class. These changes are shown in detail in DPU  
389 Exhibit 5-3SR. The changes associated with the calculation of the residential class

390 coincident peak factors is significant during the summer months of March, May, June, July,  
391 August and September as shown in the following table.

**Schedule 001-Residential Monthly Coincident Peaks (CPs)**

(A)	(B)	(C)	(B-C)	(B/C-1)
Months	CPs (kW) Rebuttal COS	CPs (kW) Direct COS	Difference (kW)	% Difference
January	852,795	779,589	73,206	9.4%
February	805,368	805,642	(273)	0.0%
March	739,213	547,137	192,076	35.1%
April	716,108	656,445	59,663	9.1%
May	1,003,539	538,495	465,044	86.4%
June	1,224,910	1,006,413	218,498	21.7%
July	1,409,492	1,197,567	211,926	17.7%
August	1,433,845	1,083,086	350,759	32.4%
September	1,052,394	713,514	338,879	47.5%
October	1,073,474	608,539	464,935	76.4%
November	1,092,948	996,421	96,527	9.7%
December	1,283,879	1,247,421	36,457	2.9%
Total	12,687,964	10,180,267	2,507,697	24.6%

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394 In total, Residential Class - Schedule 1's overall contribution to the system peak increased  
395 by nearly 25% compared to the RMP COS filed with direct testimony. The second largest  
396 increase in coincident peak contribution on an annual basis was associated with the General  
397 Service Small - Schedule 23 class. This rate class's contribution to system peak increased  
398 by 5.6%. The greatest beneficiary of the new coincident peak demand calculation is  
399 Customer C. Customer C's contribution to system peak decreased by over 28%.

400 These changes in the development of class coincident peak factors are significant and result  
401 in a dramatic change to COS results.

402 **Q. Mr. Mancinelli have you reviewed RMP's calculation in support of the revised**  
403 **demand allocators?**

404 A. Mr. Nunes, representing DPU, has reviewed available information and addresses revisions  
405 to RMP's class load information in his surrebuttal testimony. He remains concerned that  
406 RMP's approach to developing class load responsibility is flawed.

407 **Q. Given, Mr. Nunes' concerns regarding the development of class load data and the**  
408 **significant impact that revised demand allocators have on the cost of service results,**  
409 **do you recommend adoption of revised allocation factors as proposed by RMP?**

410 A. No I do not. The dramatic impact on cost of service results associated with class coincident  
411 peak indicates that the methodology must be well thought-out and thoroughly vetted by the  
412 RMP and intervening parties in this case. If customer class usage characteristics,  
413 specifically demand and energy consumption, are properly derived and adjusted for key  
414 variables (such as weather), one would expect that the resulting class allocation factors  
415 would be relatively stable between rate cases, or at least explainable give changes in class  
416 load (growth, customer loss, etc.). However, in this proceeding, it is clear that RMP does  
417 not have a method for calculating class contribution to system demand in a manner that  
418 renders a reasonable consistent and repeatable result, thereby throwing the entire  
419 calculation into doubt. Until confidence can be restored with respect to the development of  
420 such allocation factors, no changes should be accepted by the Commission beyond that  
421 initially filed by RMP. At least coincident peak factors filed in RMP's direct testimony  
422 correspond better to those used in the last rate case. A comparison of class coincident  
423 peaks between Docket 08-035-38 with a Test Year ending December 2009 and the direct  
424 testimony filed by RMP in the current Docket (Test Year ending June 2010) indicate that  
425 class coincident peaks are similar; at least when compared to the differences between the

426 Company's direct and rebuttal cost of service analysis in Docket 09-035-23. Given that the  
427 Test Years of both Dockets are so close, only six months apart, one would expect little  
428 variation in cost of service results, but this is not the case.

429 **SEASONAL ALLOCATION FACTOR DERIVATION**

430 **Q. Mr. Mancinelli, have you made corrections and adjustments to your Direct Testimony**  
431 **regarding Seasonal Allocation Factors?**

432 A. Yes. In my direct testimony on page 12 , lines 214 through 253, I recommend the use of  
433 the seasonal generation allocation factors F14- Seasonal System Generation Combustion  
434 Turbine (F14) and F16-Seasonal System Generation Cholla (F16) rather than F10-  
435 Coincident Peak System for seasonal CT's and Cholla generation resources. This change  
436 will improve the consistency between the JAM and the RMP COS. Additionally, I  
437 suggested that the calculation of the F14 and F16 factors could be improved by properly  
438 reflecting both the seasonality weighting in the JAM and the seasonal weightings applied in  
439 the RMP COS. In effect, I recommend combining and compounding the weighting factors.  
440 I calculated the impact of this compounding compared to the existing F14 and F16 factors  
441 in DPU Exhibit 5-4 of my direct testimony. In further review of that calculation, I realize  
442 that I improperly reflected RMP's calculation of the F14 and F16 allocation factors as  
443 contained in the direct testimony of Mr. Paice. Subsequently, I have modified my  
444 calculation and provide a revised Exhibit 5-4SR. As a result of this revision, the only  
445 difference between my proposed calculation and that developed by the Company is the  
446 added CP Seasonality Weightings. These weightings impact the seasonal F14 factor during  
447 the summer months of July, August and September, and the F16 factor over the entire year.



448 The end result, is that the corrected F14 and F16 allocation factors are not materially  
449 different from the Company's, as shown in the following tables.

450 **Allocation of Seasonal CT Costs**

<b>Schedule No.</b>	<b>Class</b>	<b>F10 Allocator, Coincident Peak System</b>	<b>F14 Allocator, Seasonal System Generation Combustion Turbine</b>	<b>Adjusted F14 Allocator, Seasonal System Generation Combustion Turbine</b>
1	Residential	30.77%	33.16%	33.28%
6	General Service - Large	30.95%	30.93%	30.87%
8	General Service - Over 1 MW	9.20%	8.92%	8.90%
7,11,12,13	Street & Area Lighting	0.17%	0.09%	0.09%
9	General Service - High Voltage	15.46%	13.73%	13.70%
10	Irrigation	0.76%	1.39%	1.39%
12TS	Traffic Signals	0.02%	0.02%	0.02%
12OL	Outdoor Lighting	0.03%	0.01%	0.01%
23	General Service - Small	6.68%	7.55%	7.53%
25	Mobile Home Parks	0.06%	0.05%	0.05%
SpC	Customer A - SpC	0.98%	0.85%	0.85%
SpC	Customer B - SpC	2.32%	0.88%	0.88%
SpC	Customer C - SpC	2.62%	2.42%	2.42%
	<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

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**Allocation of Seasonal Cholla Costs**

Schedule No.	Class	F10 Allocator, Coincident Peak System	F16 Allocator, Seasonal System Generation Cholla	Adjusted F16 Allocator, Seasonal System Generation Cholla
1	Residential	30.77%	30.82%	31.06%
6	General Service - Large	30.95%	30.47%	30.36%
8	General Service - Over 1 MW	9.20%	9.25%	9.24%
7,11,12,13	Street & Area Lighting	0.17%	0.22%	0.22%
9	General Service - High Voltage	15.46%	16.08%	16.03%
10	Irrigation	0.76%	0.49%	0.49%
12TS	Traffic Signals	0.02%	0.02%	0.02%
12OL	Outdoor Lighting	0.03%	0.03%	0.04%
23	General Service - Small	6.68%	6.31%	6.33%
25	Mobile Home Parks	0.06%	0.06%	0.06%
SpC	Customer A - SpC	0.98%	1.01%	1.01%
SpC	Customer B - SpC	2.32%	2.63%	2.54%
SpC	Customer C - SpC	2.62%	2.61%	2.60%
	Total	100.00%	100.00%	100.00%

454

455 As a result, the use of the current F14 and F16 allocation factors is acceptable as long as  
456 RMP’s approach to seasonal weighting remains unchanged. However, if seasonal class  
457 weighting change dramatically, then the results could differ more substantially. If the  
458 Commission agrees to allocated seasonal generation based on F14 and F16 factors, then I  
459 would recommend that the formula be adjusted as presented in DPU Exhibit 5-4SR.

460 **REVISED COST OF SERVICE AND RATE SPREAD**

461 **Q. Mr. Mancinelli have you updated your cost of service analysis as presented in your direct**  
462 **testimony?**

463 A. Yes I have.

464 **Q. Can you please describe any changes that you made?**

465 A. The primary changes to the cost of service analysis reflect adjustments to the PacifiCorp  
466 revenue requirement as described by Mr. Brill in his supplemental direct, rebuttal and  
467 surrebuttal testimony. In addition, I have made three classifications and allocation factor  
468 adjustments as described in my surrebuttal testimony. However, in order to preserve the  
469 revenue requirement recommendation as calculated by Mr. Brill, I have adjusted  
470 classification and allocation factor changes only in the RMP COS model rather than both  
471 the RMP COS model and the JAM model. If my recommended changes to classification  
472 and allocation factors are accepted by the Commission, the JAM should be adjusted  
473 accordingly. My classification and allocation adjustments are as follows:

- 474 1. In the RMP revenue requirement, I have classified renewable energy credits as 100%  
475 energy-related and allocated this cost to the customer classes using the F30 – MWh at  
476 input factor.
- 477 2. In the RMP revenue requirement, I have removed green tag revenues from Account  
478 456-Other Electric Revenue and have classified these revenues as 100% energy-  
479 related and allocated such using the F30 – MWh at input factor.
- 480 3. In the RMP revenue requirement, I have removed wind integration charges from  
481 Account 555-Purchase Power. Once removed, I have classified these costs as 100%  
482 demand-related and allocated these costs to the customer classes using the F12-  
483 coincident peak factor.

484 The results of these changes are reflected in DPU Exhibit 5-5SR and are summarized in the  
485 following table.

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**Cost of Service Comparison – Revised versus Direct**

(A) Schedule No.	(B) Rate Class	(C) COS From Mancinelli Surrebuttal	(D) COS From Mancinelli-Direct	(E) Difference (C) – (D)
1	Residential	(2.6%)	(3.0%)	0.4%
6	General Service-Large	(0.1%)	(0.9%)	0.8%
8	General Service–Over 1 MW	2.8%	1.9%	0.9%
7,11,12,13	Street & Area Lighting	(15.7%)	(15.6%)	(0.1%)
9	General Service-High Voltage	8.8%	7.7%	1.1%
10	Irrigation	19.0%	18.2%	0.8%
12TS	Traffic Signals	5.7%	5.3%	0.4%
12OL	Outdoor Lighting	(41.4%)	(41.3%)	(0.1%)
23	General Service-Small	0.7%	0.0%	0.7%
25	Mobile Home Parks	(2.7%)	(3.1%)	0.4%
SpC	Customer A	19.8%	21.2%	(1.4%)
SpC	Customer B	35.8%	26.2%	9.6%
SpC	Customer C	11.7%	12.1%	(0.4%)
	Total	1.2%	0.4%	0.8%

488

489 Overall, the revised cost of service reflects a 0.8% increase in RMP retail rates compared to  
490 that proposed in Mr. Brill’s direct testimony. Changes in cost allocation results in a slight  
491 cost shift to Rate Schedules 6, 8, 9,10, 23, and Customer A compared to other rates classes.  
492 Customer B’s cost of service was impacted greater than the other rate classes due to a  
493 corresponding adjustment in class revenues. In my direct testimony, I adjusted Customer  
494 B’s revenues by \$3 million in consideration of a pending rate adjustment. However, based  
495 on subsequent discussions with RMP this adjustment has been revised downward to  
496 \$1,171,065.

497 With respect to a recommended rate spread, consideration must be given to significant  
498 issues with RMP class load data, a rising RMP cost structure and the possibility of a much  
499 needed review of the entire cost of service allocation methodology. As mentioned in my

500 earlier testimony, rates should be cost based, however, in this proceeding I believe it is  
501 prudent to modify this position in light of the circumstances surrounding the quality of the  
502 cost of service analysis. Therefore, I recommend the rate spread be determined as follows:

503 1. Until issues surrounding class load responsibility can be properly addressed, no rate  
504 classes should receive a revenue reduction. Therefore, classes with an indicated  
505 revenue reduction, namely the Residential, Street & Area Lighting, Outdoor  
506 Lighting and Mobile Home Parks should remain unchanged.

507 2. The remaining classes should pick up their prorated share of the overall  
508 \$16,673,181 revenue increase as shown in Exhibit DPU Exhibit 5-6SR.

509 The impact of this approach is that classes with an indicated revenue increase will realize a  
510 revenue increase only about ½ of that suggested by the revised cost of service. This  
511 adjustment takes into consideration cost of service results but leaves room for some cost  
512 shifting that may result from future changes in allocation factor calculations and cost of  
513 service methodology. The following table summarizes the resulting rate spreads from such  
514 an approach.

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**Revised Rate Spread Proposal**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Schedule No.	Rate Class	Class Revenue	Revised COS Adjusted for Subsidies to Customers A, B & C	Difference (C) – (D)	Percentage difference (D)/(C) -1	Recommended Rate Spread (\$)	Recommended Rate Spread (%)
1	Residential	570,908,120	561,625,178	-9,282,942	-1.63%	0	0.00%
6	General Service-Large	407,879,106	411,845,564	3,966,458	0.97%	2,334,158	0.57%
8	General Service–Over 1 MW	117,330,242	121,811,705	4,481,463	3.82%	2,637,225	2.25%
7,11,12,13	Street & Area Lighting	13,383,047	11,401,103	-1,981,944	-14.81%	0	0.00%
9	General Service-High Voltage	159,688,687	175,553,944	15,865,257	9.94%	9,336,294	5.85%
10	Irrigation	10,962,790	13,181,112	2,218,322	20.24%	1,305,425	11.91%
12TS	Traffic Signals	470,828	502,636	31,808	6.76%	18,718	3.98%
12OL	Outdoor Lighting	933,273	552,514	-380,759	-40.80%	0	0.00%
23	General Service-Small	102,234,904	104,004,497	1,769,593	1.73%	1,041,360	1.02%
25	Mobile Home Parks	850,935	836,861	-14,074	-1.65%	0	0.00%
SpC	Customer A	9,544,739	9,544,739	0	0.00%	0	0.00%
SpC	Customer B	25,732,720	25,732,720	0	0.00%	0	0.00%
SpC	Customer C	25,893,765	25,893,765	0	0.00%	0	0.00%
	Total	1,445,813,156	1,462,486,337	16,673,181	1.15%	16,673,181	1.15%

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519           The Irrigation Rate Class will receive a 11.9% revenue increase under this approach, but  
520           this level of increase is still well below the class cost of service. If a policy decision is  
521           made such that this class cannot bear the magnitude of this increase in one step, I  
522           recommend that any additional subsidy afforded to the Irrigation class be borne by the all

523 remaining classes equally. This approach is similar to my treatment of special contract  
524 customer subsidies.

525 **Q. Does this complete your surrebuttal testimony?**

526 A. Yes it does.