

1 **Q. Are you the same C. Craig Paice who has previously testified in this**
2 **proceeding?**

3 A. Yes, I am.

4 **Q. What is the purpose of your rebuttal testimony?**

5 A. In my rebuttal testimony I present PacifiCorp's 2008 Class Cost of Service Study
6 based on the twelve month future test period ending December 31, 2008 that has
7 been updated to correspond with the revenue requirement ordered by the Utah
8 Public Service Commission on August 13, 2008. Additionally, I respond to the
9 testimony of CCS witness Mr. Paul Chernick, UIEC witness Mr. Maurice
10 Brubaker, UAE witness Mr. Kevin Higgins, and WRA/UCE witness Mr. Richard
11 Collins.

12 **Summary of Results**

13 **Q. Please identify Exhibit RMP___(CCP-1R-COS) and explain what it shows.**

14 A. Exhibit RMP___(CCP-1R-COS) is the summary table from PacifiCorp's
15 December 31, 2008 Class Cost of Service Study for the State of Utah. It is based
16 on PacifiCorp's revised annual results of operations for the State of Utah
17 presented in the rebuttal testimony of Company witness Steven McDougal as
18 modified by the Commission's final revenue requirement order in this case. Page
19 1 of Exhibit RMP___(CCP-1R-COS) presents results at the Company's
20 December 2008 rate of return assuming current rate levels. Page 2 shows the
21 results using the return provided by the Commission ordered price increase of
22 \$36.2 million. It also reflects changes to the distribution substations peaks per the
23 analysis presented by Company witness Mr. Lowell E. Alt.

24 **Q. Please identify Exhibit RMP___(CCP-2R-COS) and explain what it shows.**

25 A. Exhibit RMP___(CCP-2R-COS) shows the cost of service results in more detail
26 by class and by function. Page 1 summarizes the total cost of service summary by
27 class and pages 2 through 6 contain a summary by class for each major function.

28 **Rebuttal of Mr. Paul Chernick & Mr. Maurice Brubaker**

29 **Q. Do you agree with Mr. Chernick that the cost of service study filed in this**
30 **docket understates the energy-related cost of generation?**

31 A. No, I do not. The cost of service study employs the Utah Public Service
32 Commission approved 75 percent demand and 25 percent energy classification
33 methodology for generation and transmission costs. No generation related costs
34 (including seasonal resources) are classified 100 percent demand-related as Mr.
35 Chernick claims. Exhibit RMP___(CCP-3S), Tab 1, Page 8 explains in detail the
36 use of the 75 percent demand and 25 percent energy methodology to classify
37 generation and transmission costs and Tab 4, Pages 1-18 of the same exhibit
38 identifies all the allocation factors employed in the cost of service study.

39 **Q. Mr. Brubaker also argues for a change in the classification of generation and**
40 **transmission costs. Do you agree with his recommendation that generation**
41 **and transmission fixed costs should be classified as 100 percent demand**
42 **related?**

43 A. No. PacifiCorp's generation portfolio includes different types of resources
44 including coal fired steam plants, hydro facilities, simple and combined cycle gas
45 combustion turbines, wind turbines, and purchases. Although it may be
46 reasonable to classify the fixed costs of simple cycle combustion turbines and

47 other peaking resources 100 percent demand related (which are designed to run
48 during peak load hours only) such a classification would not be appropriate for
49 the majority of PacifiCorp's portfolio. The Company's resource fleet is heavily
50 skewed toward base load plants that were constructed not only to meet peak load,
51 but also to produce low cost kilowatt-hours 24 hours per day, 7 days per week as
52 needed to provide the energy requirements of all customers. The capital
53 investment of a coal fired steam plant and other base load plants is greater than
54 the capital investment of a peaking turbine. This additional investment was made,
55 not to meet the peaking needs of the Company, but to generate lower cost kilowatt
56 hours. Therefore, it would seem reasonable that some of the additional capital
57 investment be classified as energy related.

58 **Classification of Generation and Transmission Costs**

59 **Q. Please explain why the current methodology employed in the Company's cost
60 of service study is appropriate for the state of Utah?**

61 **A.** This classification issue was one of the first raised at the time of the Utah Power -
62 Pacific Power merger because both companies previously utilized different
63 generation fixed cost classification methodologies. Since the newly merged
64 company created a combined system involving seven states it was necessary to
65 find a common methodology suitable to all parties. Studies were conducted by the
66 Division of Public Utilities (DPU) to determine the cause of production capacity
67 costs with their conclusions being adopted by the Commission staffs of the states
68 served by the Company to allocate jurisdictional costs. This methodology was
69 also used in Docket 90-035-06, the first post-merger case to allocate cost of

70 service. Several years following this docket, the DPU studies were updated and
71 the same conclusions were reached. Since it was first introduced, the mix of 75
72 percent demand and 25 percent energy has been considered by the Commission to
73 be reasonable. The Commission's position, as stated in Section IV. A.2. of the
74 order issued in Docket 97-035-01, provides the basis for use of this allocation
75 methodology:

76 "We conclude that twelve monthly coincident peaks, with a 75
77 percent demand-related and 25 percent energy-related mix, is the
78 appropriate basis for allocating production and transmission costs
79 to classes in the Utah jurisdiction."

80 The classification of generation and transmission costs was addressed at length
81 during the Multi-State Process (MSP) discussions. Several approaches were
82 discussed, including those recommended in this case by Mr. Chernick and Mr.
83 Brubaker. As with the earlier PacifiCorp Interjurisdictional Taskforce on
84 Allocations (PITA) analysis, no clearly superior demand/energy classification
85 split emerged from analyses conducted during the Multi-State Process. Because
86 the 75 percent demand and 25 percent energy classification of generation fixed
87 costs currently used by PacifiCorp falls in the middle of the range of reasonable
88 approaches, the Company found no compelling reason to change the approach.

89 **Q. Have changes to the 75 percent demand and 25 percent energy allocation**
90 **method been proposed in previous rate cases?**

91 A. Yes. In Docket 01-035-01, USEA (United States Executive Agencies) witness
92 Mr. Joseph Herz argued in support of 100 percent demand classification of
93 generation fixed costs. He concluded that the 75 percent demand and 25 percent
94 energy classification was inappropriate "in that a portion of its demand related

95 costs are allocated according to energy use.” The Company provided testimony in
96 support of the 75 percent demand and 25 percent energy classification in this
97 same docket. RMP witness Mr. David L. Taylor stated:

98 “PacifiCorp classifies production and transmission plant and
99 non-fuel related expenses as 75 percent demand and 25 percent
100 energy related. The Company’s goal is to supply the lowest
101 total cost generation resources to meet our customers’ needs.”
102 (Docket 01-035-01, Taylor rebuttal, page 8).

103 In addition Dr. George Compton, of the DPU, also responded to Mr. Herz’
104 recommendations and conducted additional analysis on the classification
105 question.

106 **Q. What were the results of Dr. Compton’s analysis?**

107 A. The analysis performed by Dr. Compton determined that a portion of the fixed
108 costs associated with generation plants are energy-related and that it is entirely
109 appropriate to allocate some of these costs in proportion to energy consumption.
110 Regarding the quantity of energy-related of fixed costs, Dr. Compton’s rebuttal
111 testimony in the aforementioned docket illustrates continued support for the
112 approved methodology where he stated that “... the 25% figure is reasonable.”
113 (Docket 01-035-01, Compton Rebuttal, page 3)

114 **Q. Are the peaker and new generation plant approaches presented by Mr.
115 Chernick appropriate methods of determining energy-related generation
116 plant costs?**

117 A. No. The intended objective is to allocate production costs to customer classes
118 consistent with the cost impacts imposed on the system. While classifying some
119 portion of generation fixed as energy-related is appropriate, Mr. Chernick’s

120 methods, in my view, reflect a bias toward classifying an excessive portion of
121 generation costs as energy-related. The 1992 *Electric Utility Cost Allocation*
122 *Manual* published by the National Association of Regulatory Utility
123 Commissioners (NARUC) states that using the peaker method generally results in
124 significant portions (between 40 to 75 percent) of generation costs being
125 classified as energy-related. Mr. Chernick’s testimony validates this concern
126 stating that his approaches suggest generation costs should be 32 to 80 percent
127 energy-related.

128 In addition, neither is appropriate because they apply simple calculations to a very
129 complex issue. The complexities involved in determining a proper allocation
130 cannot be underestimated. Perhaps this is best summarized by Dr. Compton, again
131 in rebuttal testimony in Docket 01-035-01, where he referenced the difficulty
132 involved in calculating an appropriate demand and energy classification mix. His
133 expert opinion provides guidance on this subject:

134 “To perform a definitive analysis employing all (or even a large
135 portion of) the elements of the PacifiCorp demand/profile and
136 resources would be horrendously complex.” (Docket 01-035-01,
137 Compton Rebuttal, page 3)

138 Lack of complexity suggests that neither approach presented by Mr. Chernick
139 meets the qualifications of a definitive analysis.

140 **Q. How should we view Mr. Chernick’s recommended changes in the energy**
141 **allocation of generation-related costs?**

142 A. These recommended changes should be rejected for the following reasons:

- 143 • This subject has received significant attention throughout the years following
144 the Utah Power - Pacific Power merger. The PacifiCorp Interjurisdictional

145 Task Force on Allocations (PITA), the Multi-State Process (MSP) and the
146 2005 Cost of Service and Rate Design Taskforce have all discussed this
147 subject at length with no resulting changes.

- 148 • The Utah PSC gave approval for use of this allocation method in cost of
149 service studies.
- 150 • Various analyses have been performed validating reasonableness of the 75
151 percent demand and 25 percent energy allocation.
- 152 • Approaches lacking objectivity and based on simple mathematical
153 computations undermine the importance of determining an appropriate
154 generation cost allocation method. Selection of an appropriate allocation
155 method should be based on costs imposed on the system. They should also
156 require extensive analysis as recommended by Dr. Compton.
- 157 • Section III.A.1 of Mr. Chernick’s testimony references the impact of changing
158 Factor 10 from 75 percent to 50 percent demand causing a shift of “about \$8.5
159 million off of Schedules 1, 6, and 23 and about \$3.8 million onto Schedule 8
160 and 9.” The final sentence in this same section states “The demand-related
161 portion of PacifiCorp owned generation, weighted across PacifiCorp’s
162 generation mix, may be much lower than 50 percent, so the effects may be
163 much larger.” It remains evident from these statements that Mr. Chernick’s
164 approaches to increase the energy allocation will create significant cost shifts
165 between the various rate schedules. Since the revenue requirement spread to
166 schedules is generally dependent upon cost-of-service information, a large or
167 abrupt change in cost allocations could ultimately produce large rate

168 variations and would violate the principle of gradualism. The principle of
169 gradualism has been held by the Utah PSC to be significant in order to avoid
170 significant changes in rates within schedules.

171 **Q. What is Mr. Chernick's position regarding the classification of transmission**
172 **plant?**

173 A. He is also critical of the 75 percent demand and 25 percent energy allocation of
174 transmission-related costs stating it is likely that over half of the Company's
175 transmission revenue requirement is attributable to energy. The basis for this
176 statement is a simple review of PacifiCorp's 2006 FERC Form 1. In addition, he
177 recommends to the Commission that PacifiCorp be required to undertake a
178 comprehensive analysis of the factors driving transmission investment.

179 **Q. Do you agree with his conclusion regarding energy-related classification of**
180 **transmission plant?**

181 A. No. RMP allocates transmission costs similar to the allocation of generation costs.
182 This practice is consistent with guidelines cited in the NARUC *Electric Utility*
183 *Cost Allocation Manual* which states:

184 "In general, customers are allocated a portion of the fully distributed
185 (embedded) cost of the transmission system on a basis similar to the
186 way production costs are allocated. The reason for this is that the
187 transmission system is essentially considered to be an extension of the
188 production system, where the planning and operation of one is inexorably
189 linked to the other." (page 75).

190 RMP's position is in concert with this statement. This position plus the
191 aforementioned reasons cited for maintaining use of the 75 demand and 25 energy
192 allocation for generation costs support the current allocation method.

193 Additionally, the basis of Mr. Chernick's position is a review of the Company's

194 FERC Form 1 which he admits did not represent a comprehensive analysis of
195 transmission costs.

196 **Q. Should the Utah PSC consider his recommendation for RMP to undertake a**
197 **thorough analysis of transmission investment?**

198 A. No. This perspective is contrary to the “burden of proof” argument necessary
199 when recommending allocation changes. As explained by Dr. Compton:

200 “The burden of ‘proof’ to come up with some kind of definitive
201 study incorporating the specifics of PacifiCorp’s loads and resources
202 would lie with whomever sought to depart from the established
203 25%/75% ratio.” (Docket 01-035-01, Compton Rebuttal, page 5).

204 As such, the responsibility to prove the necessity of departing from the approved
205 methodology rests with the recommending party.

206 **Allocation of Firm Purchases and Sales**

207 **Q. What is the basis for allocating sales for resale revenue and purchased power**
208 **expenses as presented in the cost of service study?**

209 A. The basis is the *Allocations Task Force Report to the Utah Public Service*
210 *Commission* (December 16, 1999, page 21) which states:

211 “The PSC indicated in their Order in the last PacifiCorp rate case
212 their desire for consistent application of cost-causal principles in
213 both jurisdictional and class allocation studies. Consistency implies
214 that the same methodology would be used in both the jurisdictional
215 allocation and class cost of service models to allocate similar types
216 of costs.”

217 Sales for Resale revenue / Purchased Power expense allocations presented in the
218 cost-of-service study are consistent with allocations presented in the Jurisdictional
219 Allocation Model (JAM) and comports with the Commission’s perspective.

220 **Q. Do you agree with Mr. Chernick’s position that Sales for Resale revenue and**
221 **Purchased Power expenses are inappropriately allocated?**

222 A. No. I disagree with Mr. Chernick’s positions for at least two reasons. First of all,
223 Mr. Chernick proposes different allocation procedures for Sales for Resale
224 revenues and Purchased Power expenses. Second, his Sales for Resale revenue
225 allocation proposal is inconsistent with his proposal for the allocation of the cost
226 of the resources supporting those revenues. This allocation issue was raised in
227 Docket 97-035-01 and addressed by the Company and the Division at that time.
228 The Allocation Taskforce arising from that case also addressed this issue.
229 Discussion of this subject contained in the *Allocations Task Force Report to the*
230 *Utah Public Service Commission* (December 16, 1999, page 13) stated:

231 “Early in the task force discussions, the parties agreed with the
232 principle that the sales for resale revenue should be allocated on
233 the same basis as the cost of making the sales. The issue then
234 became how this principle would be implemented. The Division’s
235 analysis in the last rate case was based on 1997 data. For task
236 force discussion, the Division updated their analysis using 1998
237 data (see Appendix). In the meantime, the Company had slightly
238 changed the way the sales for resale revenue were allocated in the
239 class cost of service study. The net result was that both the
240 Division’s 1998 analysis and the Company’s 1998 cost study
241 results were very similar (60/40 versus 63/47 demand/energy split
242 respectively). The Division now believes that the Company’s
243 current method is reasonable since the results are close and neither
244 method is entirely accurate.”

245 The cost of service study maintains this proportional perspective when comparing
246 the percent of total sales for resale revenues to total purchased power expenses for
247 all classes. Comparison results are:

Schedules	Sales for Resale	Purchased Power	Variance
Sch 1	30.5%	31.0%	0.5%
Sch 6	29.2%	28.9%	-0.3%
Sch 8	9.2%	9.1%	-0.1%
Sch. 7,11,12	0.2%	0.2%	0.0%
Sch 9	17.6%	17.5%	-0.1%
Sch 10	0.6%	0.6%	0.1%
Sch 12	0.0%	0.0%	0.0%
Sch 12	0.0%	0.0%	0.0%
Sch 23	6.6%	6.6%	0.0%
Sch 25	0.1%	0.1%	0.0%
Cust A	0.9%	0.9%	0.0%
Cust B	2.5%	2.5%	0.0%
Cust C	2.5%	2.5%	0.0%

248 There is a slight difference of 0.5 percent for Residential Schedule 1. A few other
249 schedules show even smaller differences with no variation for most schedules.

250 **Q. What conclusion can be drawn from this comparison?**

251 A. Cost of service study results maintain a consistent allocation between sales for
252 resale revenues and purchased power expenses as expected by the Utah PSC.

253 From my analyses I also conclude that as long as the classification and allocation
254 of sales for resale revenues and purchased power expenses are consistent, the
255 methodology will have very little net impact on the cost of service results.

256 **Q. Why are his approaches for allocating sales for resale revenues particularly
257 inappropriate?**

258 A. Mr. Chernick proposed to allocate sales for resale revenue in a manner that is
259 totally inconsistent with his proposal for the allocation of the cost of the resources
260 supporting those revenues. In the cost of service study all costs are first allocated
261 to retail customers. Any revenues that the Company receives from sources other
262 than retail customers (revenue credits), such as sales for resale revenues, are then

263 used to reduce the level of costs that are ultimately collected from those retail
264 customers. As such, revenue credits should be allocated to customer classes in a
265 manner consistent with the costs that support those revenues.

266 Mr. Chernick's approaches, on the other hand, are predicated on the assumption
267 that customer classes have the right to generation resources proportional to their
268 July peak contribution. These approaches may be acceptable if each class were
269 allocated the cost of generation based on only the July peak. However neither
270 RMP's generation allocation method, which utilizes all 12 coincident peaks, nor
271 Mr. Chernick's proposal for generation costs use this method. Mr. Chernick's
272 proposal is a gross mismatch between how the underlying generation costs are
273 allocated among customer classes and how the sales for resale revenues made
274 possible from those resources are allocated. For example Mr. Chernick's "unused
275 energy/peak" method, as shown in the work papers provided in response to RMP
276 DR 1.4, assumes that during the month of February the residential class is entitled
277 to 66 percent, of the Company's generation resources, but is only responsible for
278 24 percent of the February generation costs.

279 **Q. What other concerns do you have with Mr. Chernick's proposals for the**
280 **allocation of sales for resale revenues and purchased power expenses?**

281 A. His proposal would create significant shifts among the classes. It appears that
282 incorporating his recommendations would have significant consequences similar
283 to those for generation and transmission costs. His testimony states that by
284 changing the allocation of the firm non-seasonal purchases component of
285 purchased power expenses to 25 percent demand from 75 percent demand results

286 in a shift of approximately \$13 million away from Schedules 1, 6, and 23. Then, a
287 review of his three approaches to allocate sales for resale revenues demonstrates
288 large differences from the cost study. The least variable approach would increase
289 allocation of these revenues to Schedule 1 by a net difference of 27.44 percent.
290 The other approaches illustrate even greater variations for this same schedule. He
291 concludes with the observation that significant allocation changes (i.e., cost
292 shifting) would occur and is supported by his final comment that the “effects on
293 other classes could be material.” However, there is no analysis presented to
294 illustrate precisely how significantly these changes would impact all customer
295 classes. Also, there is no attempt to determine if the accepted practice of flowing
296 revenue credits to customer classes in proportion to the share of costs would be
297 maintained.

298 **Q. Please summarize your findings regarding current cost of service study**
299 **allocation methodologies.**

300 A. The cost of service study filed by the Company is a reasonable representation of
301 cost functionalization, classification, and allocation of the Utah revenue
302 requirement. The 75 percent demand / 25 percent energy allocation accepted by
303 the Utah PSC and used in this study is an appropriate methodology which has
304 been significantly discussed and analyzed. The sales for resale revenue allocation
305 flows to customer classes in proportion to the share of generation costs assigned
306 to them. Mr. Chernick’s recommended allocation changes to the cost study would
307 induce cost shifts among customer classes potentially creating large rate change
308 variations across classes. No analyses are provided illustrating 1) total potential

309 class revenue requirement shifts or 2) support for consistent allocations between
310 sales for resale revenue and purchased power expenses. Absent cost movement
311 indication it is impossible to ascertain if gradualism would be preserved.

312 **Rebuttal of Mr. Brubaker concerning 12 CP allocation**

313 **Q. Do you agree with Mr. Brubaker's observation that because of growth in**
314 **summer peak compared to loads in other seasons that it is time to revisit the**
315 **appropriateness of the 12 coincident peaks (CP) allocation?**

316 A. I agree with his observation that summer peak loads are growing. For this reason,
317 the Company introduced modifications to the allocation of generation fixed costs
318 and net power costs (introduced in Docket 06-035-21) to reflect the impact of
319 seasonal costs and load differences. These modifications represent a first step
320 toward meeting the objective of recognizing seasonal load and cost differences in
321 the cost of service study without causing significant cost shifts between customer
322 classes. However, I do not agree with the appropriateness of revisiting the 12 CP
323 cost allocation methodology for two reasons. First, although RMP is a summer-
324 peaking utility, costs are allocated based on the entire integrated system because
325 that is how the system is planned and dispatched. A 12 CP allocation for system
326 demand costs has been used since the Utah Power - Pacific Power merger in 1989
327 and continues to be used because it represents actual system operations. It
328 recognizes that each of the monthly peaks is important. Second, it is appropriate
329 for allocation methods to be consistent between interjurisdictional and class cost
330 of service allocations. These two positions comport with Utah PSC findings (see
331 order in Docket 97-035-01, Section IV.A.2, 4 respectively). Mr. Brubaker

332 references revisiting the use of 12 coincident peaks to allocate generation among
333 classes but presents no analysis in support of his statement. As discussed earlier in
334 my testimony, deviation from the presently accepted methodology should be
335 accompanied by “definitive analysis” from the recommending party.

336 **Rebuttal of Mr. Kevin Higgins**

337 **Q. Do you agree with Mr. Higgins assessment that the Company’s treatment of**
338 **the MSP Rate Mitigation Cap in the class cost of service approach is**
339 **incorrect?**

340 A. No. While I agree there may be alternative approaches, I do not believe the
341 method employed in our filed study produced a conceptual error. The Company’s
342 cost of service treatment of the MSP Rate Mitigation Cap is consistent with our
343 representations before the Utah Commission in the hearing to approve the MSP
344 Stipulation held on July 19, 2004.

345 **Q. Why does Mr. Higgins feel the Company’s approach is incorrect?**

346 A. Rather than view the impacts of the Rate Mitigation Cap as a reduction in the
347 Company’s return on rate base, he views the Cap as a reduction in the allocation
348 of generation costs to Utah. He recommends that the impact of the Rate
349 Mitigation Cap be reflected as a reduction to generation expense so that the
350 Company return is unaffected.

351 **Q. Do you agree with the way he has portrayed the impact of the Rate**
352 **Mitigation Cap?**

353 A. No. The Rate Mitigation Cap does not reduce the allocation of costs to Utah. The
354 MSP Revised Protocol as stipulated by the Utah parties, including those

355 represented by Mr. Higgins, and approved by the Utah Commission is the
356 methodology used to allocate costs to Utah. As such, Utah is allocated its full
357 proportional share of total Company costs. The Rate Mitigation Cap does not
358 limit the allocation of generation costs; it limits the level of revenues the
359 Company is allowed to collect. This lowers the rate of return the Company will
360 actually realize in Utah. The Company's cost of service study reflects the impact
361 of the Rate Mitigation Cap by incorporating the lower "effective" return on rate
362 base it produces.

363 **Q. Are there other alternatives to the cost of service treatment of the Rate**
364 **Mitigation Cap?**

365 A. Yes. A possible alternative to the current cost of service treatment would be to
366 lower the target return for the generation function only producing a different
367 return for them when compared to the rates of return for other functions. The
368 Company is not opposed to exploring this or other alternatives. Such an approach,
369 however, would be a departure from the Company's traditional view that all
370 business functions are producing the same rate of return.

371 **Planning Margin Adjustment**

372 **Q. Mr. Higgins recommends that a portion of costs associated with the**
373 **Company's planning margin requirement be added to the peak loads for**
374 **classes that are traditionally temperature normalized. Do you agree with his**
375 **proposal?**

376 A. No, I do not. Mr. Higgins proposes an adjustment that allocates a percentage of
377 planning margin to the CP for those rate schedules whose loads are traditionally

378 temperature-adjusted by the Company. No data or calculations are presented that
379 support this recommendation. The only basis for his recommendation is that he
380 believes that a planning margin is reasonable. This recommendation has very
381 little foundation and should be rejected.

382 **Rebuttal of Mr. Richard Collins**

383 **Q. Do you agree with Mr. Collins that the Commission should order the**
384 **Division to investigate cost of service based on marginal costs?**

385 A. The Company believes that Mr. Collins' proposal should be investigated in the
386 marginal cost/load growth collaborative proposed by Mr. Griffith in his rebuttal
387 testimony and by other parties in their direct testimonies.

388 **Workpapers**

389 **Q. Have you included your workpapers?**

390 A. Yes. Exhibit RMP___(CCP-3R-COS) includes the cost of service study
391 underlying the summary tables in RMP___(CCP-1R-COS). Both of these
392 exhibits are being provided on CD in both PDF and working models.

393 **Q. Does this conclude your rebuttal testimony?**

394 A. Yes, it does.