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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE VOLUNTARY REQUEST OF ROCKY MOUNTAIN POWER FOR APPROVAL OF RESOURCE DECISION TO REPOWER WIND FACILITIES	Docket No. 17-035-39
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PREFILED DIRECT TESTIMONY AND EXHIBITS OF KEVIN C. HIGGINS

The Utah Association of Energy Users (“UAE”) hereby submits the Prefiled Direct
Testimony of Kevin C. Higgins in this docket

DATED this 20th day of September 2017.

HATCH, JAMES & DODGE



/s/ _____

Gary A. Dodge
Attorneys for UAE

Certificate of Service

Docket No. 17-035-39

I hereby certify that a true and correct copy of the foregoing was served by email this day 20th day of September 2017 on the following:

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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Voluntary Request of)
Rocky Mountain Power for Approval of)
Resource Decision to Repower Wind) Docket No. 17-035-39
Facilities)
)

Direct Testimony of Kevin C. Higgins

On Behalf of the

Utah Association of Energy Users

September 20, 2017

I. INTRODUCTION AND SUMMARY

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Q. Please state your name and business address.

A. My name is Kevin C. Higgins. My business address is 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

Q. By whom are you employed and in what capacity?

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. On whose behalf are you testifying in this proceeding?

A. My testimony is being sponsored by the Utah Association of Energy Users (“UAE”).

Q. Please summarize your qualifications.

A. My academic background is in economics, and I have completed all coursework and field examinations toward a Ph.D. in Economics at the University of Utah. In addition, I have served on the adjunct faculties of both the University of Utah and Westminster College, where I taught undergraduate and graduate courses in economics. I joined Energy Strategies in 1995, where I assist private and public sector clients in the areas of energy-related economic and policy analysis, including evaluation of electric and gas utility rate matters.

Prior to joining Energy Strategies, I held policy positions in state and local government. From 1983 to 1990, I was economist, then assistant director, for the Utah Energy Office, where I helped develop and implement state energy policy.

23 From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County
24 Commission, where I was responsible for development and implementation of a
25 broad spectrum of public policy at the local government level.

26 **Q. Have you previously testified before the Utah Public Service Commission**
27 **(“Commission”)?**

28 A. Yes. Since 1984, I have testified in thirty-eight dockets before the Utah
29 Public Service Commission on electricity and natural gas matters.

30 **Q. Have you testified previously before any other state utility regulatory**
31 **commissions?**

32 A. Yes, I have testified in approximately 180 other proceedings on the
33 subjects of utility rates and regulatory policy before state utility regulators in
34 Alaska, Arkansas, Arizona, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas,
35 Kentucky, Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New
36 York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina,
37 Texas, Virginia, Washington, West Virginia, and Wyoming. I have also filed
38 affidavits in proceedings before the Federal Energy Regulatory Commission and
39 prepared expert reports in state and federal court proceedings involving utility
40 matters.

41 **Q. What is the purpose of your testimony in this case?**

42 A. My testimony addresses the Voluntary Request by Rocky Mountain Power
43 (“RMP” or “Company”) for approval to upgrade or repower wind facilities. RMP
44 is requesting that the Commission: (a) determine that the Company’s decision to

45 upgrade or repower most of its existing wind facilities is prudent; (b) approve the
46 Company's continued recovery of the replaced wind plant equipment; and (c)
47 approve the Company's proposed ratemaking treatment.

48 **Q. Please provide a summary of your conclusions and recommendations.**

49 A. UAE has not taken a position at this time for or against approval of RMP's
50 wind repowering proposal or tracking mechanism per se. Although the
51 Company's analysis shows a range of potential benefits (and costs) to customers
52 under certain natural gas and CO₂ pricing risks, the magnitude of these benefits in
53 relation to the benefits to RMP over the next 20 years do not make a compelling
54 case for UAE's endorsement in light of other uncertainties that may impair the
55 realization of any projected customer benefits. However, if the Commission
56 considers approval of RMP's proposals, I offer some recommendations for better
57 aligning risks and benefits of the proposal as between RMP and its ratepayers.

58 RMP's wind repowering proposal is not a typical utility investment
59 proposition. The wind repowering project might best described as an
60 "opportunity" investment in that it seeks to take advantage of the availability of
61 Production Tax Credits ("PTCs") before the federal tax credit program expires per
62 the current statutory phase out. Since it is an opportunity investment, the relative
63 benefits to customers, taking account of the range of risks to customers, in
64 relation to the benefits to RMP, should be considered as part of the Commission's
65 review.

66 I am concerned that when measured over the 20-year period used in the
67 Company's 2017 Integrated Resource Plan ("IRP"), the benefits from this
68 opportunity investment are significantly weighted in favor of the Company, even
69 though when measured over the life of the new assets, 2017-2050, the net present
70 value of the projected benefits to customers and to the Company are reasonably
71 comparable. Since 30 years is a long time for the equities in this proposition to
72 even out, and in light of the fact that there is a range of risk associated with the
73 realization and the amount of customer benefits, I believe it is reasonable to
74 consider an adjustment in the terms of the repowering proposal.

75 Specifically, if the repowering project is granted preapproval, I
76 recommend that it be made conditional on a reduction of 200 basis points to the
77 authorized rate of return on common equity applicable to the un-depreciated
78 balance of the retired plant (inclusive of associated accumulated deferred income
79 taxes ["ADIT"]). This adjustment would have the effect of better balancing the
80 benefits between customers and the Company over the first 20 years of the
81 repowering project.

82 The Resource Tracking Mechanism ("RTM") proposed by RMP to defer
83 and recover project costs is fairly complex, and I am not convinced it is necessary
84 to adopt this approach in lieu of RMP simply filing a general rate case at the
85 appropriate time. That said, in its own terms, the RTM appears to be logically
86 constructed and reasonably balances the interests of the Company and customers,
87 with exception of the proposed long-term continuation of the RTM as a PTC

88 tracking mechanism. PTCs are not tracked today in the manner proposed by the
89 Company, nor is it necessary to track PTCs going forward to ensure just and
90 reasonable rates. Therefore I recommend that if the RTM is approved, the
91 Company's proposal for a long-term PTC tracker be rejected.

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93 **II. RMP's WIND REPOWERING PROPOSAL**

94 **Q. What does RMP propose in its filing?**

95 A. RMP is proposing to repower a significant portion of its wind fleet at a
96 projected cost of \$1.13 billion. In total, the repowering project will consist of
97 1096.8 MW of new nameplate capacity that will replace 999.1 MW of existing
98 nameplate capacity.¹ On average, the repowering project is expected to increase
99 wind energy production at the repowered sites by around 19.2%.² The Company
100 provides analysis intended to demonstrate that this undertaking will provide net
101 benefits to customers over a range of potential scenarios, although certain
102 scenarios project net costs to customers.

103 **Q. What is the statutory basis cited by the Company for its filing?**

104 A. RMP is making this filing under Utah's "Energy Procurement Act," (Utah
105 Code Ann. § 54-17-402),³ through which the Company is seeking preapproval for
106 the project. This statute states that:

107 "(1) Beginning on February 25, 2005, before implementing a resource
108 decision, an energy utility may request that the commission approve all or
109 part of a resource decision in accordance with this part.

¹ See Direct testimony of Rick T. Link, Exhibit RMP__(RTL-1), p. 1.

² *Id.*, p. 13, lines 297-299.

³ Utah Revised Code, Title 54, Chapter 17, Part 4, Section 402.

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(2) (a) To obtain the approval permitted by Subsection (1), the energy utility shall file a request for approval with the commission; and,
(b) The request for approval required by this section shall include any information required by the commission by the rule made in accordance with Title 63G, Utah Administrative Rulemaking Act.”

Q. What are the benefits of the proposal as identified by RMP?

A. The Company contends in its Application that customers will benefit from the repowering due to the potential for increased energy production, a reduction in operating costs, and the ability to receive additional federal PTCs that will expire ten years after a facility’s original commercial operation date.⁴

RMP witness Rick T. Link has prepared detailed analyses of projected customer benefits for both the 2017 IRP time horizon (2017-2036) and for the depreciable life of the new assets (2017-2050). Mr. Link’s analyses consider a range of potential outcomes that take into account deviations in future natural gas pricing and CO₂ costs.

A summary of Mr. Link’s results for the 20-year time horizon is presented in Table KCH-1, below. Mr. Link’s 20 year calculations use the same valuation metrics as the 2017 IRP in which capital costs are translated into real levelized values.

⁴RMP Application for Approval of Resource Decision to Repower Wind Facilities, pages 1-2.

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Table KCH -1
Net Benefits of Wind Repowering Projected by RMP (\$ millions)
2017-2036

Price-Policy Scenario	SO Model PVRR(d)	PaR Stochastic-Mean PVRR(d)	PaR Risk Adjusted PVRR(d)
Low Gas, Zero CO2	\$33	\$43	\$44
Low Gas, Medium CO2	\$0	\$9	\$8
Low Gas, High CO2	(\$18)	(\$17)	(\$19)
Medium Gas, Zero CO2	(\$33)	(\$24)	(\$25)
Medium Gas, Medium CO2	(\$22)	(\$13)	(\$15)
Medium Gas, High CO2	(\$41)	(\$35)	(\$36)
High Gas, Zero CO2	(\$75)	(\$40)	(\$43)
High Gas, Medium CO2	(\$64)	(\$34)	(\$37)
High Gas, High CO2	(\$103)	(\$80)	(\$85)

* Data Source: Direct Testimony of Rick T. Link - REDACTED, p. 28, Table 2, Utah PSC Docket No. 17-035-39. Note: Projected customer benefits are shown as negative entries.

135 **Q. What potential customer benefits are shown in Table KCH-1?**

136 A. As shown in Table KCH-1, RMP’s estimate of customer benefits over the
 137 20-year-period of the IRP ranges from a net *cost* to customers of \$44 million
 138 under the “low gas price, zero CO₂ price” scenario to a net benefit of \$103 million
 139 under the “high gas price, high CO₂ price” scenario. The middle case, the
 140 “medium gas price, medium CO₂ price” scenario, yields a range of projected net
 141 benefits under different risk assessment metrics ranging from \$13 million to \$22
 142 million. Unless otherwise indicated, all measurements of benefits discussed in
 143 my testimony are on a total Company basis.

144 **Q. What customer benefits did Mr. Link estimate in his longer-term analysis?**

145 A. The range of customer benefits in Mr. Link’s longer-term analysis, 2017-2050,
 146 using the PaR Stochastic-Mean PVRR(d) metric, are presented in Table KCH-2,
 147 below.

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Table KCH-2
Net Benefits of Wind Repowering Projected by RMP (\$ millions)
2017-2050

Price-Policy Scenario	PaR Stochastic-Mean PVRR(d)
Low Gas, Zero CO2	(\$41)
Low Gas, Medium CO2	(\$245)
Low Gas, High CO2	(\$344)
Medium Gas, Zero CO2	(\$362)
Medium Gas, Medium CO2	(\$359)
Medium Gas, High CO2	(\$401)
High Gas, Zero CO2	(\$400)
High Gas, Medium CO2	(\$274)
High Gas, High CO2	(\$589)

* Data Source: Direct Testimony of Rick T. Link - REDACTED, p. 32, Table 3 Utah PSC Docket No.17-035-39. Note: Projected customer benefits are shown as negative entries.

151 **Q. What potential customer benefits are shown in Table KCH-2?**

152 A. Over the period 2017-2050, Mr. Link calculates projected benefits ranging
153 from \$41 million to \$589 million using the PaR Stochastic-Mean PVRR(d)
154 metric. In the “medium gas price, medium CO₂ price” scenario, Mr. Link
155 calculates a net customer benefit of \$359 million.

156 **Q. What is causing the significant increase in projected customer benefits in the**
157 **longer-term analysis compared to the 20-year analysis?**

158 A. The primary driver of the incremental customer benefits in the longer-term
159 analysis is the assumption that the existing wind assets would otherwise be retired
160 after 30 years of useful life. The additional 10 years of usefulness from the wind
161 assets as a result of the repowering significantly reduces projected net power costs
162 during the 2037-2050 measurement period, as the life-extended wind output

163 displaces market purchases and thermal generation. Of course, the substantial
164 benefits projected during this period depend on the assumption that the original
165 wind assets actually would have been retired at the end of their projected lives
166 rather than kept in operation. If instead, the existing assets would have remained
167 in operation longer, the net benefits to customers projected for this period would
168 be lower. At the same time, even if the lives of the original assets would have
169 been extended, it is not unreasonable to assume that the repowering would add 10
170 years or so of additional life to the facilities *at some point* in the future, albeit in a
171 later period – and at a lower net present value of benefits due to discounting.

172 **Q. What time constraints impact the scheduling of the repowering project?**

173 A. In order to achieve the full PTC benefits, RMP indicates in its Application
174 that it must complete the wind repowering project by the end of 2020.⁵

175 **Q. What ratemaking treatment is RMP proposing?**

176 A. The Company is proposing a new deferral and cost recovery mechanism,
177 called the Resource Tracking Mechanism, requested under Utah Code Ann. § 54-
178 4-1, 54-4-23, 54-17-402, and 54-17-403.⁶ As explained by RMP witness Jeffrey
179 K. Larsen, the Company believes the RTM is the appropriate ratemaking
180 treatment for matching the annual costs and benefits of the wind repowering
181 project.⁷

182 **Q. What time frame does RMP propose for implementing the RTM?**

⁵ Id., p. 2, paragraph 1.

⁶ Id., p. 7, Section 15 “Proposed Ratemaking Treatment”.

⁷ Direct Testimony of Jeffrey K. Larsen, p. 5, lines 89-98.

183 A. The Company is asking for the RTM to be in place until the incremental
184 costs and benefits of the repowering project are fully reflected in base rates.⁸
185 Once the full costs are reflected in base rates in a general rate case, RMP proposes
186 that the RTM stay in place for the purpose of tracking year-to-year changes in the
187 new PTCs.

188 **Q. When would the deferral of the items listed above begin?**

189 A. RMP proposes that the deferral start with the on-line date of the first
190 repowered facility. On March 15 each year, the Company would file the RTM
191 deferral balance from the prior calendar year, to be included in rates beginning
192 May 1, on an interim basis.⁹

193 **Q. What costs and revenues would be included in the RTM deferral?**

194 A. RMP proposes that the deferral for each of the repowered wind resources
195 include the following revenue requirement components:

- 196 • Plant revenue requirement, consisting of:
 - 197 • Capital investment
 - 198 • Accumulated Depreciation Reserve (“ADR”)
 - 199 • Accumulated Deferred Income Tax (“ADIT”)
 - 200 • Operations and Maintenance Expense
 - 201 • Depreciation expense
 - 202 • Property taxes
 - 203 • Wyoming Wind Tax
- 204 • Net Power Cost savings
- 205 • PTCs

206 RMP proposes to calculate the RTM deferral as the difference between the

⁸ RMP Application for Approval of Resource Decision to Repower Wind Facilities, p. 8, paragraph 1.

⁹ Direct Testimony of Jeffrey K. Larsen, p. 7, lines 134-136.

207 value included in base rates for these items and the new value, taking into account
208 the costs and benefits of repowered wind facilities as they come into service.

209 **Q. How would net power cost savings attributable to incremental wind**
210 **production be captured in rates?**

211 A. Net power cost savings are currently captured in the EBA. To the extent
212 that the EBA is either modified or eliminated in a future review of the sharing
213 mechanism, the Company would use the RTM to pass back any incremental net
214 power cost savings that are not captured in the EBA. Mr. Larsen states that under
215 this approach, customers will receive the “full net benefits” from the repowering
216 project, while “shareholders receive appropriate cost recovery of the prudent
217 investment.”¹⁰

218 **Q. How does RMP propose to treat the existing wind assets that will be replaced**
219 **by the new wind investment?**

220 A. RMP plans to retire the replaced assets, but still recover the cost of these
221 assets while earning the Company’s authorized rate of return on the un-
222 depreciated balance. RMP proposes to implement this by removing these assets
223 from plant in service and rebooking them into the ADR. Additionally, the
224 Company intends to file new depreciation rates in 2019. In its Application, the
225 Company states that it intends to reset the 30-year depreciable life of the
226 repowered wind facilities, which will effectively extend the depreciable life of the

¹⁰ Id., page 5, lines 95-97.

227 facilities by 10 to 13 years.¹¹ It is my understanding that as part of this extension,
228 the recovery of the retired assets would also be extended through this time frame.

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III. ASSESSMENT OF RMP PROPOSAL

231 **Q. What is UAE’s position regarding the repowering proposal?**

232 A. UAE has not taken a position at this time for or against approval of RMP’s
233 wind repowering proposal or tracking mechanism per se. Although the
234 Company’s analysis shows a range of potential benefits (and costs) to customers
235 given certain natural gas and CO2 pricing risks, the magnitude of the benefits in
236 relation to the benefits to RMP over the next 20 years do not make a compelling
237 case for UAE’s endorsement in light of additional uncertainties that may impair
238 the realization of the projected customer benefits. However, if the Commission
239 considers approval of RMP’s proposals, I offer some recommendations for better
240 aligning risks and benefits of the proposal as between RMP and its ratepayers.

241 **Q. What are your general observations regarding RMP’s wind repowering
242 proposal?**

243 A. RMP’s wind repowering proposal is not a typical utility investment
244 proposition. Utility generation projects are typically driven by the need to meet
245 reliability requirements, load growth, and/or to replace retired plant that has come
246 to the end of its useful life. That is not the case here. The wind re-powering

¹¹ RMP “Application for Approval of Resource Decision to Repower Wind Facilities”, p. 8, Docket 17-035-39.

247 project might best described as an “opportunity” investment in that it seeks to take
248 advantage of the availability of PTCs before the federal tax credit program expires
249 per the current statutory phase out. The PTCs are so remunerative that they can
250 produce positive economic results for an investment that otherwise would not
251 make economic sense, in this case, prematurely replacing 10-year-old wind
252 generating equipment that has 20 years remaining on its useful life.

253 In advocating for this opportunity investment, RMP makes the case that
254 the project will reduce rates for customers on a net present value basis. The
255 reduction in rates comes about primarily because the benefits of the PTCs are
256 flowed-through to customers, and additionally, the new wind generating assets
257 will produce 19.2% more energy than the assets they are replacing, thereby
258 reducing net power costs.

259 **Q. As a general proposition, would a projected reduction in customer rates**
260 **justify approval of an opportunity investment such as this?**

261 A. While I believe that a projected reduction in customer rates should be
262 given significant weight in determining whether a project such as this should be
263 approved, it is also reasonable to consider the overall equities and risks involved.

264 Consider an extreme hypothetical example to illustrate this point. Assume
265 an opportunity investment would produce \$1 in benefits in the form of reduced
266 rates for customers, while at the same time producing \$100 million in returns for
267 the utility. Would such a proposition be reasonable? Intuitively, the extreme
268 asymmetry in upside benefits between customers and shareholders in this example

269 makes this proposition unappealing. It becomes even more so if there are risks
270 associated with achieving the customer benefits.

271 Moving beyond this extreme example, suppose customer benefits were
272 projected to be \$1 million, while the return to the utility remained \$100 million.
273 While the benefits to customers are clearly more significant in this second
274 example, the equities are still lopsided, and it is far from clear that a regulator
275 would consider such an opportunity investment to be a reasonable package.
276 However, if the benefits to customers were to continue to be increased,
277 presumably at some point they would reach a level at which the arrangement
278 would be appealing to most regulators and determined to be in the public interest.

279 What these illustrative examples demonstrate is that in the case of an
280 opportunity investment – one in which there is a “deal” to be had – the relative
281 benefits among the parties that stand to gain from the deal matter. This should not
282 be surprising. In working out the terms of any business arrangement between two
283 principals, what each party would hope to gain from the arrangement will be a
284 function of the attributes each party brings to the table, the relative risks they
285 assume, and their bargaining positions, among other things.

286 **Q. What is the relevance of this discussion for the wind repowering project?**

287 A. Since it is an opportunity investment, the relative equities for both parties
288 should be taken into account as part of the Commission’s review. Specifically,
289 the relative benefits to customers, taking account of the range of risks to

290 customers, in relation to the benefits to RMP, should be considered as part of the
291 Commission's review.

292 **Q. How do the relative equities stack up under RMP's proposal?**

293 A. There is a significant difference in the relative equities depending on the
294 time period of analysis. For a 20-year analysis, we can begin with RMP's
295 projection of the benefits to customers summarized in Table KCH-1, above. As I
296 discussed above, RMP's estimate of customer benefits over this period ranges
297 from a net *cost* to customers of \$44 million to a net benefit of \$103 million. The
298 middle case, the "medium gas price, medium CO₂ price" scenario, yields a range
299 of net benefits under different risk assessment metrics ranging from \$13 million to
300 \$22 million.

301 Yet over this same period, the net present value of the projected return to
302 the Company on the repowering investment is \$289 million, measured on a real
303 levelized basis (the same basis used to value customer benefits). If,
304 conservatively, we only consider the after-tax equity return over this period, the
305 benefit to the Company is projected to be \$192 million. This calculation is shown
306 in UAE Exhibit 1.1.¹² Thus, over the 20-year measurement period, the benefits
307 from this opportunity investment are significantly weighted in favor of the
308 Company.

309 **Q. Are the projected benefits to customers subject to risk?**

¹² See the last row of the "20 Year NPV" column on page 1 of UAE Exhibit 1.1.

310 A. Yes. As reflected in Mr. Link’s analysis, there are risks to customers
311 (with respect to the economics of this investment) associated with natural gas
312 prices and CO₂ prices. And of course there are other risks as well that are more
313 difficult to quantify, such as increased construction costs or unanticipated
314 deviations in the performance, maintenance costs, or durability of the new assets.
315 There are also unknown impacts on the economics from potential changes to the
316 U.S. tax code – which appears to be a priority of the President and the Congress.

317 **Q. What are the relative equities between the parties over the longer**
318 **measurement period?**

319 A. Over the longer measurement period, 2017-2050, the net present value of
320 the projected benefits to customers and to the Company are more comparable,
321 although this does not consider the additional risks to customers that I just
322 enumerated. As I discussed above, over the longer time period, RMP calculates
323 projected benefits to customers ranging from \$41 million to \$589 million, with a
324 net customer benefit of \$359 million in the “medium gas price, medium CO₂
325 price” scenario. Over this same period, the net present value of the projected
326 return to the Company on the repowering investment is \$382 million. If,
327 conservatively, we only consider the after-tax equity return over this period, the
328 benefit to the Company is projected to be \$254 million. This calculation is also
329 shown in UAE Exhibit 1.1.¹³

¹³ See the last row of the “Lifecycle NPV” column on page 1 of UAE Exhibit 1.1.

330 **Q. In lines 289-291 of his Direct Testimony, Mr. Larsen indicates that as current**
331 **PTCs expire, RMP will absorb those costs until the next general rate case.**
332 **Have you subtracted the cost of expired PTCs from your calculation of the**
333 **net benefits to the Company?**

334 A. No. The costs of expiring PTCs should not be subtracted from the
335 benefits of the repowering investment to the Company, as the expiration of
336 current PTCs will occur independently of the proposed repowering project.
337 Moreover, the timing of the next general rate case – when RMP can incorporate
338 the expiration of the current PTCs in its revenue requirement – is largely at the
339 Company’s discretion.

340 **Q. In light of the benefits to the Company from the repowering investment, do**
341 **you have any concerns about the equities of RMP’s proposal?**

342 A. Yes, I do. Notwithstanding the fact that the projected benefits for the
343 Company and customers are in a relatively comparable range over the 2017-2050
344 period, I am concerned that over the 20-year measurement period the benefits are
345 considerably more heavily weighted in favor of the Company. Thirty years is a
346 long time to wait for the equities to even out – a lot of unexpected things can
347 happen between now and then. I am also concerned with the disparity in relative
348 risks borne by the parties.

349 **Q. Do you have any recommendations to address this concern?**

350 A. Yes. In these circumstances it is reasonable to consider an adjustment in
351 the terms of the proposition. There is nothing unusual about this. One expects

352 that an opportunity investment should require some negotiations between the
353 principals to reach a fair balance in the projected benefits.

354 One area that I believe a reasonable adjustment can be made is in the
355 allowed return on the retired plant. As I discussed above, RMP plans to retire the
356 replaced assets, but still recover the cost of these assets while earning the
357 Company's authorized rate of return on the un-depreciated balance. In its
358 Application, RMP has made it clear that recovering the cost (and earning a return)
359 on the retired assets is an integral part of its proposal. Indeed, I believe a
360 significant reason for the Company seeking preapproval for the repowering
361 project is to ensure that this will occur. And certainly, it would not make sense
362 for the Company to present an opportunity investment designed to reduce long-
363 term rates for customers, if in exchange, the Company was susceptible to an after-
364 the-fact disallowance on its retired plant. But I believe that a modest adjustment
365 to the allowed earnings on the retired plant is a reasonable means to improve the
366 20-year relative benefits between the Company and customers if the adjustment is
367 part of the preapproval package.

368 **Q. What specific adjustment do you believe is reasonable?**

369 A. I recommend a reduction of 200 basis points to the authorized rate of
370 return on common equity applied to the un-depreciated balance of the retired
371 plant (taking into account associated ADIT). This would increase the benefits to
372 customers in the 20-year measurement period, 2017-2036, by \$42 million, while
373 reducing the projected benefits to the Company by \$26 million. These

374 calculations are shown in UAE Exhibit 1.2.¹⁴ The reason for the difference
375 between these two values is that customer benefits are measured on a pre-tax
376 basis (i.e., the measurement takes into account income tax expense paid by
377 customers) whereas Company benefits are measured on an after-tax basis. If this
378 200 basis point adjustment to the return on common equity is made, the resulting
379 20-year benefit for the Company would be reduced to \$166 million,¹⁵ while the
380 projected benefits to customers would range from a cost of \$2 million to a net
381 benefit of \$145 million,¹⁶ using the same assumptions incorporated in the
382 summary in Table KCH-1. I note that my recommended 200 basis point
383 adjustment generally offsets the \$33 million to \$44 million loss to customers that
384 is projected to occur under the Company's "low gas price, zero CO₂ price"
385 scenario.

386 Over the 2017-2050 period, a reduction of 200 basis points to the return on
387 common equity on the retired plant would increase the projected benefits to
388 customers by \$56 million, while reducing the benefits to the Company by \$35
389 million. These calculations are also shown in UAE Exhibit 1.2.¹⁷ The resulting
390 benefit from the project for the Company would be reduced to \$219 million,¹⁸
391 while the projected benefits to customers would range from \$97 million to \$645
392 million,¹⁹ using the same assumptions embedded in the summary in Table KCH-

¹⁴ See UAE Exhibit 1.2, p. 1, column b, lines 14-15.

¹⁵ Derivation: \$191.567 million - \$25.913 million = \$165.564 million.

¹⁶ This is derived by adding \$42 million in customer benefits to the RMP projected range of \$44 million in net costs to \$103 million in net benefits shown in Table KCH-1.

¹⁷ See UAE Exhibit 1.2, p. 1, column d, lines 14-15.

¹⁸ Derivation: \$253.585 million - \$34.715 million = \$218.87 million.

¹⁹ This is derived by adding \$56 million in customer benefits to the RMP projected range of \$41 million to

393 2. I believe that an adjustment in the terms of the proposal along these lines
 394 produces a more reasonable balancing of the benefits between customers and the
 395 Company.

396 A summary of these results is presented in Table KCH-3, below.

397 **Table KCH-3**
 398 **Summary of Benefits After 200 BP Adjustment to ROE on Retired Plant**
Total Company

Projected Net Benefits to Customers and RMP Based on RMP's Proposal		
Timeframe	Customer Benefit Range (Millions)	RMP Benefit (Millions)
2017-2036	\$44 (\$103)	\$192
2017-2050	(\$41) (\$589)	\$254

Projected Net Benefits to Customers and RMP Based on 200 BP Adjustment to ROE on Retired Plant		
Timeframe	Customer Benefit Range (Millions)	RMP Benefit (Millions)
2017-2036	\$2 (\$145)	\$166
2017-2050	(\$97) (\$645)	\$219

399 Note: Projected customer benefits are shown as negative entries. RMP benefits are shown as
 400 positive entries.

401 **Q. Your comparison of net benefits to customers and the Company is on a total**
 402 **Company basis. Have you prepared any calculations on a Utah-allocated**
 403 **basis?**

\$589 million in net benefits shown in Table KCH-2.

404 A. Yes. I convert the benefit measurements shown in Table KCH-3 into a
 405 Utah-allocated basis in Table KCH-4, below.

406 **Table KCH-4**

407 **Summary of Benefits After 200 BP Adjustment to ROE on Retired Plant
 Utah Allocated**

Projected Net Benefits to Customers and RMP Based on RMP's Proposal		
Timeframe	Customer Benefit Range (Millions)	RMP Benefit (Millions)
2017-2036	\$19 (\$45)	\$84
2017-2050	(\$18) (\$257)	\$111

Projected Net Benefits to Customers and RMP Based on 200 BP Adjustment to ROE on Retired Plant		
Timeframe	Customer Benefit Range (Millions)	RMP Benefit (Millions)
2017-2036	\$1 (\$63)	\$72
2017-2050	(\$42) (\$282)	\$95

408 Note: Projected customer benefits are shown as negative entries. RMP benefits are shown as
 409 positive entries.

410 **Q. If an adjustment is made to the terms of the Company's proposal, why is the**
 411 **allowed return on the retired plant a reasonable item to adjust?**

412 A. Since the retired plant is no longer used and useful, there is a greater
 413 degree of discretion that can be applied to the allowed return on it compared to
 414 the allowed return on plant in service; this can range all the way from no return on
 415 the retired plant to a full return, depending on the merits of the situation. As I
 416 discussed above, RMP has made it clear that recovering the cost (and earning a

417 return) on the retired assets is an integral part of its proposal. Further, I
418 acknowledge that it would not make sense for the Company to present an
419 opportunity investment designed to reduce long-term rates for customers, if in
420 exchange, the Company were susceptible to an after-the-fact disallowance or a
421 punitive disallowance on its retired plant. The adjustment I am recommending is
422 not intended to be after-the-fact or punitive to RMP, but rather is intended to
423 better balance, upfront, the benefits from this opportunity proposition for both
424 customers and the Company.

425 **Q. What is your recommendation to the Commission on this issue?**

426 A. If the repowering project is granted preapproval, I recommend that it be
427 made conditional on a reduction of 200 basis points to the authorized rate of
428 return on common equity applied to the un-depreciated balance of the retired plant
429 (inclusive of associated ADIT). Since the Company's cost of capital will change
430 over time, the allowed return on the retired plant should be reset as a part of
431 subsequent general rate cases by maintaining this differential relative to the return
432 on equity approved in those cases, applied to the unamortized balance of the
433 retired assets. Further, because the retired assets would be subject to a lower rate
434 of return under my proposal, it may be more appropriate to convert them to a
435 regulatory asset, to better track them over time, rather than simply rebooking them
436 into the ADR as proposed by RMP.

437 **Q. What is your assessment of the RTM proposed by the Company?**

438 A. The RTM is a fairly complex mechanism and I am not convinced it is
439 necessary to adopt this approach in lieu of RMP simply filing a general rate case
440 at the appropriate time. That said, in its own terms, and with one exception, the
441 RTM appears to be logically constructed and reasonably balances the interests of
442 the Company and customers. The one exception is the proposed long-term
443 continuation of the RTM as a PTC tracking mechanism. This component strikes
444 me as unnecessary and unrelated to the RTM's underlying function in this case as
445 a transitional deferral of project costs and revenues until the next general rate
446 case. PTCs are not tracked today in the manner proposed by the Company, nor is
447 it necessary to track PTCs going forward to ensure just and reasonable rates.
448 Therefore I recommend that if the RTM is approved, the Company's proposal for
449 a long-term PTC tracker be rejected.

450 **Q. Does this conclude your direct testimony?**

451 A. Yes, it does.