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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

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, Consisting of a General Rate Increase of Approximately $161.2 Million Per Year, and for Approval of a New Large Load Surcharge	**Docket No. 07-035-93**

PREFILED DIRECT TESTIMONY OF KEVIN C. HIGGINS

[COST OF SERVICE / RATE DESIGN]

The UAE Intervention Group (UAE) and Wal-Mart Stores, Inc. ("Wal-Mart") hereby submit the Prefiled Direct Testimony of Kevin C. Higgins on cost of service/rate design issues.

DATED this 21st day of July, 2008.

/s/_____
Gary A. Dodge,
Attorneys for UAE

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by email this 21st day of July, 2008, on the following:

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BEFORE

THE PUBLIC SERVICE COMMISSION OF UTAH

Direct Testimony of Kevin C. Higgins

on behalf of

UAE and Wal-Mart

[Cost of Service / Rate Design]

July 21, 2008

DIRECT TESTIMONY OF KEVIN C. HIGGINS

Introduction

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 jointly sponsored by the Utah Association of Energy Users Intervention Group and Wal-Mart Stores, Inc. Wal-Mart Stores, Inc. is a member of UAE that has intervened separately in this proceeding.

Q. Are you the same Kevin C. Higgins who previously filed testimony on behalf of UAE and Wal-Mart Stores, Inc. in the Test Year and Revenue Requirement phases of this proceeding?

A. Yes, I am. A detailed description of my qualifications is contained in Attachment A, attached to my Test Year direct testimony, Exhibit UAE TP-1.

Overview and Conclusions

Q. What is the purpose of your testimony in this phase of the proceeding?

A. My testimony addresses: (1) RMP's proposed rate spread; (2) RMP's cost of service study; (3) RMP's proposed rate design for Rate Schedules 8 and 9; and (4) RMP's proposal to introduce vintage pricing in Utah through its proposed Schedule 500.

Q. What conclusions and recommendations do you offer based on your analysis?

A. I offer the following conclusions and recommendations:

(1) RMP's proposed rate spread is reasonable and I recommend its adoption by the Commission with one minor modification.

(2) RMP's depiction of class cost responsibility is incorrect due to a conceptual error in the Company's translation of the effect of the Revised Protocol rate mitigation cap on Utah class cost of service. Because of this error, RMP's depiction of Utah class cost of service in Exhibit RMP (CCP-1S), p. 2, understates Utah distribution and transmission cost of service by a combined $13 million and overstates Utah generation cost of service by this same amount. Because the various Utah rate classes do not bear the same share of generation costs as they do distribution costs, RMP's calculation results in a distorted depiction of class cost responsibility under the rate mitigation cap. In particular, RMP's calculation overstates the cost responsibility of Schedule 9, which, by its terms of service, does not use the distribution system. Correction of this error

provides additional support for RMP's proposed rate spread, because it indicates that for the classes proposed to receive a uniform percentage increase, class rates of return are actually closer together than is shown in RMP's cost-of-service summary.

(3) RMP's proposed rate design for Schedule 8 and 9 is generally reasonable; however, the time-of-use energy charges for each time period should be increased by the same percentage, rather than increasing the on-peak periods by a lower percentage than the off-peak periods, as would occur under RMP's proposal.

(4) The Commission should reject RMP's proposal to introduce vintage pricing to Utah through its proposed Schedule 500. The Company's proposal is rife with problems that are fatal to the establishment of just and reasonable rates. Adoption of vintage pricing would send a strong anti-development message to businesses that wish to locate or grow in Utah, undercutting the efforts of Utah policymakers to advance the economic vitality of the state for the wellbeing of its residents. Moreover, the proposal is incompatible with established principles of ratemaking, as it would create a two-tiered pricing regime that would result in rates that are unduly discriminatory among industrial customers within Utah, and between Utah customers and customers in other states. In light of these and other considerations, the Company's vintage pricing proposal should be rejected because it is not in the public interest, and it will not result in rates that are just and reasonable.

Rate Spread

Q. What has RMP proposed with respect to rate spread?

A. The Company's rate spread proposal is presented in the direct testimony of William R. Griffith, pages 2-5, and Mr. Griffith's supplemental direct testimony, pages 1-2. Mr. Griffith states that RMP's proposed spread of rates is intended to reflect cost-of-service results while balancing the impact of the rate change across customer classes. For the major customer classes whose cost-of-service results fall within four percentage points of the overall proposed rate change, the Company is recommending a uniform percentage rate increase. This group includes Residential, Schedules 8, 9, and 23, and most lighting classes. The Company recommends that based on cost-of-service results, irrigation customers should receive an increase two times the jurisdictional average, and Schedule 6 should receive an increase one percentage point below the jurisdictional average. With respect to special contract customers, Mr. Griffith acknowledges that some special contract rates will change depending on the outcome of this case, but that these revenues are not reflected in the proposed rate increase. The Company proposes that at the conclusion of the case, any increased special contract revenues be recognized and used to reduce the rate impacts on other customer classes.

Q. What is your assessment of the Company's rate spread proposal?

A. In my opinion, the Company's rate spread proposal is generally reasonable and I recommend its adoption by the Commission, with one minor modification.

Q. What is your proposed modification to the rate spread proposal?

A. Given that Schedule 6 is earning returns materially above cost of service, I recommend that in addition to receiving a rate increase that is one percent below that jurisdictional average, any special contract revenues that are recognized at the conclusion of the case be earmarked to further reduce the rate increase impact for this rate schedule.

Q. Have you prepared any analysis that provides additional support for the Company's rate spread recommendation?

A. Yes, I have. In the section of my testimony that follows, I show that RMP's cost-of-service analysis improperly translates the effect of the rate mitigation cap (of the MSP Revised Protocol) in presenting Utah class cost-of-service results. Correction of this conceptual error results in class rates of return that are closer together for the classes proposed to receive a uniform increase than is shown in RMP's cost-of-service summary. I also calculate class returns at RMP's proposed rate spread (with this correction) and demonstrate that the results fall within the range of reasonableness previously used in Utah for spreading rate changes on a uniform basis.

Class Cost of Service

Q. What class cost-of-service results are presented by RMP?

A. The Company's class cost-of-service results are presented by RMP witness C. Craig Paice in both direct and supplemental direct testimony. For ease

of reference, the results of the Company's analysis, at RMP's proposed revenue requirement in its supplemental filing, is replicated in UAE-WM Exhibit COS/RD 1.1, page 1. In the discussion that follows, all my references to jurisdictional revenue requirement are to RMP's proposed revenue requirement in its supplemental filing, even though the Company's proposal has since been modified, as the supplemental filing contains the Company's most recently-filed analysis of class cost of service.

Q. Do you concur with the cost-of-service results presented by the Company?

A. No. I disagree with how RMP translates the effect of the MSP Revised Protocol rate mitigation cap in presenting its Utah class cost-of-service results. This disagreement pertains to the *calculation* of the results as distinct from the cost-of-service *methodology* being employed.

Q. Please explain your disagreement with how RMP translates the effect of the MSP Revised Protocol rate mitigation cap in presenting its Utah class cost-of-service results.

A. The Company presents its class cost-of-service results for the revenue requirement derived using the MSP Revised Protocol rate mitigation cap. I agree that this jurisdictional revenue requirement is the appropriate one to use for determining class cost of service. However, the calculation of class revenue responsibility is incorrect due to a conceptual error in the Company's approach. I discussed this error at length in Docket No. 04-035-42 and in the task force that was created pursuant to the stipulation and order in that case. Nevertheless, RMP

has repeated this error in this filing. As rate spread has been resolved through settlement since the approval of the MSP Revised Protocol, the Commission has not had the opportunity to rule on this issue.

Q. Please continue. How does the rate mitigation cap affect the allocation of costs to Utah customer classes?

A. The MSP Revised Protocol rate mitigation cap constrains the impact of the additional generation costs that are otherwise allocated to Utah under the MSP Revised Protocol. The cap provision of the Revised Protocol currently requires that the revenue requirement impact on Utah from adopting the MSP method be capped at 101.25 percent of the "Rolled-in" revenue requirement. The only difference between the Rolled-in revenue requirement and the MSP Revised Protocol revenue requirement is the allocation of generation-related costs to Utah. Therefore, none of the other functions shown in RMP's cost-of-service summary – transmission, distribution, retail, etc. – should be affected by the rate mitigation cap. It follows, then, that class cost-of-service responsibility for the non-generation functions (transmission, distribution, retail, etc.) is identical under "Rolled-in" as under Revised Protocol, and it is, of course, identical under the Revised Protocol rate mitigation cap, as well. This concept is highly intuitive. Yet, under the Company's translation of the rate mitigation cap, the class cost-of-service responsibility for the non-generation functions does vary between the Rolled-in revenue requirement and the rate mitigation cap revenue requirement – and therein lies the conceptual error with RMP's approach.

Q. In what ways does the class cost-of-service responsibility for the non-generation functions vary between the Rolled-in revenue requirement and the rate mitigation cap revenue requirement under RMP's calculation?

A. The deviations are most pronounced in the distribution and transmission functions. To demonstrate the problem in the case of distribution, we can compare the cost-of-service results by function for the Revised Protocol rate mitigation cap revenue requirement [Exhibit RMP (CCP-1S), p. 2 – replicated in UAE-WM Exhibit COS/RD 1.1, page 1] and the Rolled-in revenue requirement [shown in UAE-WM Exhibit COS/RD 1.1, page 2].

According to RMP's class cost-of-service model calculated using the Rolled-in revenue requirement increase of $81.2 million, Utah's distribution cost-of-service is $396 million at RMP's target return on rate base of 8.54 percent. (This is shown on page 2 of UAE-WM Exhibit COS/RD 1.1, page 2, which was calculated using the model RMP provided in response to MDR 1.6.[1]) We can compare this figure to the results RMP shows for the revenue requirement increase of $99.8 million that obtains after applying the rate mitigation cap. Under the rate mitigation cap, Utah's share of system generation cost is increased relative to Rolled-in by up to 101.25 percent of the jurisdictional revenue requirement. No other function is affected. Yet RMP's depiction of Utah distribution cost of service *declines* by $9 million to $387 million as we move

[1] It would have been simpler to use the Rolled-in results calculated by RMP in response to MDR 1.6; however, RMP did not answer MDR 1.6 correctly. MDR 1.6 asks for class cost of service using the Rolled-in method; RMP's answer provides class cost-of-service for the Rolled-in revenue requirement *grossed up*

from "Rolled-in" ($81.2 million increase) to "Rolled-in times 101.25 percent" ($99.8 million increase).

Similarly, RMP's depiction of Utah transmission cost of service declines from $110 million to $106 million as we move from the Rolled-in revenue requirement to the revenue requirement obtained after applying the rate mitigation cap.

Of course, it makes no sense for Utah's distribution and transmission cost-of-service to change at all as we move from the Rolled-in revenue requirement to the rate mitigation cap revenue requirement: it particularly makes no sense for these costs-of-service to decline as the revenue requirement increases from the Rolled-in amount to rate mitigation cap amount.

Q. If the Company's depiction of cost-of-service shows distribution and transmission costs-of-service declining as the revenue requirement deficiency is increased from $81.2 million to $99.8 million, how are these reductions in costs of service offset?

A. The reductions in distribution and transmission cost of service are made up by assigning an even greater increase to Utah generation cost than is called for by the Revised Protocol. That is, as we move from the Rolled-in revenue requirement to the rate mitigation cap revenue requirement, RMP allocates an additional $32 million to the Utah generation cost of service, even though the total Utah revenue requirement goes up by only $19 million.

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for the rate mitigation cap of 101.25%. Therefore, it was necessary for me to recalculate class cost-of-service at the Rolled-in revenue requirement using the Company's model.

The result is that RMP's depiction of Utah class cost of service in Exhibit RMP (CCP-1S), p. 2, understates Utah distribution and transmission cost of service by a combined $13 million and overstates Utah generation cost of service by this same amount.

Q. What are the implications for the class cost of service results of understating distribution cost of service while overstating generation cost of service?

A. Because the various Utah rate classes do not bear the same share of generation costs as they do distribution costs, RMP's calculation results in a distorted depiction of class cost responsibility under the rate mitigation cap. In particular, RMP's calculation overstates the cost responsibility of Schedule 9, which, by its terms of service, does not use the distribution system.

Q. Have you determined how the understatement of distribution and transmission costs occurs in RMP's calculation?

A. Yes. RMP has chosen to reflect the effects of the rate mitigation cap as an overall reduction in its target rate of return for all functions. That is, even though RMP is requesting a rate of return of 8.54 percent in this proceeding, the Company presents its class cost of service results (at RMP's requested revenue increase of $99.8 million) using a lower target rate of return of 8.19 percent. This has the effect of assigning the impact of the rate mitigation cap to <u>all</u> functions – even though the Revised Protocol only affects the allocation to Utah of <u>generation</u> costs.

The upshot is that RMP's depiction of class cost of service at the rate mitigation cap revenue requirement is conceptually incorrect. Utah's distribution and transmission cost-of-service do not change as we move from Rolled-in to Revised Protocol, and the increased allocation to Utah of $19 million in system generation costs does not result in a $32 million increase in Utah generation cost of service. Because the MSP Revised Protocol allocates more generation costs to Utah than does Rolled-in, its adoption in Utah has a relatively greater impact on classes for which generation is a relatively large component of rates, such as Schedule 9. RMP's depiction of class cost of service exacerbates this impact by assigning even more costs to generation than is called for by the Revised Protocol.

Q. How can this problem be corrected?

A. This problem can be corrected by determining class cost-of-service by function using RMP's model at the (true) target rate of return for all functions, and then adjusting the generation cost-of-service downward to meet the constraint of the rate mitigation cap. This adjustment to generation cost-of-service can be accomplished by reflecting a reduction in generation expense allocated to Utah, which is consistent with the way that the Revised Protocol adjusts Utah generation costs in the first instance (i.e., the Revised Protocol allocates greater generation costs to Utah via increasing generation expense). Alternatively, the adjustment could be made by reducing the target rate of return for generation (while holding the target rate of return for all other functions unchanged) until the constraint of the rate mitigation cap is met.

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

A. I recommend that the Commission order RMP to correct its depiction of Utah class cost of service such that cost of service for non-generation functions is determined using the true target rate of return and does not vary between the Rolled-in and rate mitigation cap revenue requirements, and that further, Utah generation class cost of service be determined by reducing the Utah generation revenue requirement downward to meet the constraint of the rate mitigation cap, as described in my testimony above.

Q. Have you recalculated Utah class cost of service in the manner you are recommending?

A. Yes. The results are presented in UAE-WM Exhibit COS/RD 1.2, page 1. The results indicate that for the classes proposed to receive a uniform percentage increase, class rates-of-return are closer together than is shown in RMP's cost-of-service summary. As noted in the Rate Spread section of my testimony, these results provide additional support for RMP's proposed rate spread.

Q. Have you calculated Utah class cost of service in the manner you are recommending while showing the effects of RMP's proposed rate spread?

A. Yes. These results are presented in UAE-WM Exhibit COS/RD 1.2, page 2. At the Company's proposed rate spread, the relative returns for those classes receiving a uniform increase fall within the range of .90 to 1.10, with the exception of Schedule 23, which falls just below this range. The range of .90 to

1.10 has been used previously by the Commission as the basis for spreading rate changes on a uniform basis.[2]

Q. Do you have any other comments on RMP's cost of service analysis?

A. Yes. In Docket No. 04-035-42, I raised the concern that RMP's cost-of-service methodology understates generation cost responsibility for those customer classes whose loads increase materially as temperatures rise. This occurs because RMP allocates costs to classes using weather-normalized data, whereas the amount of generation that RMP actually acquires as part of its planning process necessarily is greater than the resources needed to meet peak demand in a normal weather year. In other words, the generation costs being allocated reflect a system that is designed for above-normal temperatures, but class cost responsibility is allocated as if weather were always normal. If all classes were equally sensitive to weather there would be no serious cost-of-service bias in ignoring the additional resources that are needed to provide a generation reserve to serve load when temperatures are higher than normal. But not all classes are equally sensitive to weather. Industrial load, for example, tends to be relatively insensitive to temperature changes, while Utah residential load tends to be much more responsive to it, particularly in light of the state's growing residential air conditioning load.

Q. Is the recognition of system peak design requirements recognized in any cost of service approaches used in Utah?

[2] Commission Order, Docket No. 97-035-01, at 102-104.

A. Yes. Questar Gas recognizes system design peak day usage by class in allocating costs across customer classes.

Q. How did you propose to address this issue in Docket No. 04-035-42?

A. In that proceeding, I recommended that a portion of the costs associated with RMP's planning margin be allocated to weather-sensitive classes in recognition of the fact that a portion of the Company's planning margin provides generation reserves, enabling RMP to serve load during periods of above-normal temperatures. I calculated the effect of such an adjustment on class rates of return and determined that such an adjustment would have a modest reduction in the relative return for the Residential class and a very substantial increase in the relative return for Schedule 9 customers. My proposal was further discussed in the task force that was created pursuant to the stipulation and order in that case, but no consensus was reached among stakeholders as to its implementation.

Q. What are you recommending to the Commission with regard to this issue in this proceeding?

A. I continue to believe that a planning margin adjustment is appropriate. However, I am not requesting that the Commission formally adopt such a modification to the cost-of-service methodology in this docket. Instead, I recommend that the Commission recognize the adverse impact to Schedule 9 that occurs from allocating costs based on normal weather (the current approach) as a qualitative factor in support of adopting RMP's proposed rate spread, in which

several major rate schedules, including Schedule 9, receive a uniform percentage increase. I may propose a specific adjustment in a future proceeding.

Rate Design - Schedules 8 and 9

Q. Do you have any comments on RMP's proposed rate design for Schedules 8 and 9?

A. Yes. The energy charges for both Schedules 8 and 9 are recovered on a time-of-use ("TOU") basis. In this proceeding, RMP is recommending that the energy rates be increased, but that the absolute differential between on-peak and off-peak prices remain the same as in current rates. Mathematically, this means that on-peak rates would experience a smaller percentage increase than off-peak rates, as shown in Table KCH-1, below.

Table KCH-1

RMP's Proposed Percentage Increase in Schedule 8 & 9 TOU Energy Rates
(at RMP's Proposed Revenue Requirement in its Supplemental Filing)

Schedule 8	Current Rate	Proposed Rate	Percent Change
Summer On-Peak (¢/kWh)	3.6832	3.8960	5.78%
Non-Summer On-Peak (¢/kWh)	2.8832	3.0960	7.38%
Summer/Non-Summer Off-Peak (¢/kWh)	2.4832	2.6960	8.57%

Schedule 9	Current Rate	Proposed Rate	Percent Change
Summer On-Peak (¢/kWh)	3.2247	3.4020	5.50%
Non-Summer On-Peak (¢/kWh)	2.4247	2.6020	7.31%
Summer/Non-Summer Off-Peak (¢/kWh)	2.0247	2.2020	8.76%

Q. What is your assessment of RMP's proposal for applying any rate increase to the TOU energy charges for Schedules 8 and 9?

A. I disagree with assigning smaller percentage increases to the on-peak prices relative to the off-peak prices. This sends the wrong price signal. Instead, I recommend that the same percentage increase be applied to the on-peak and off-peak energy charges. This approach is illustrated in table KCH-2, below, using RMP's proposed energy revenue requirement for Schedules 8 and 9 found in the Company's Supplemental filing. The illustrative charges in Table KCH-2 are derived in UAE-WM Exhibit COS/RD 1.3.

Table KCH-2

UAE's Proposed Percentage Increase in Schedule 8 & 9 TOU Energy Rates
(at RMP's Proposed Revenue Requirement in its Supplemental Filing)

Schedule 8	Current Rate	Proposed Rate	Percent Change
Summer On-Peak (¢/kWh)	3.6832	3.9682	7.74%
Non-Summer On-Peak (¢/kWh)	2.8832	3.1063	7.74%
Summer/Non-Summer Off-Peak (¢/kWh)	2.4832	2.6754	7.74%

Schedule 9	Current Rate	Proposed Rate	Percent Change
Summer On-Peak (¢/kWh)	3.2247	3.4770	7.82%
Non-Summer On-Peak (¢/kWh)	2.4247	2.6144	7.82%
Summer/Non-Summer Off-Peak (¢/kWh)	2.0247	2.1831	7.82%

RMP's Vintage Pricing Proposal – Schedule 500

Q. What is RMP proposing with respect to alternative pricing for new and growing Utah industrial load?

A. RMP's alternative pricing proposal for new and growing Utah industrial load is presented on pages 14-23 in the direct testimony of RMP witness William R. Griffith. According to the Company's proposal, new Utah customers with loads that are 10 MW or greater would not be offered service at the traditional embedded-cost rates that are used for all other customers. Similarly, any load growth from an existing customer would also not be offered service at traditional embedded rates if that load growth is 10 MW or greater over any one-year period.

These new and growing customers would be subject to a new proposed surcharge, Schedule 500. Affected customers would pay this surcharge in addition to the rates on the standard tariff service schedule that would otherwise apply.

RMP proposes a 25 percent surcharge for Schedule 500 effective August 2008, increasing to a 30 percent surcharge effective August 2009. During the period these surcharges are proposed to be in place, RMP proposes that the Commission open a docket to investigate this issue and to explore alternatives to embedded cost pricing.

Q. Does RMP propose any time limitation for which an affected customer would be subject to Schedule 500?

A. No. The Company's proposal is open-ended with respect to the period an affected customer would be required to remain on Schedule 500. Absent an explicit "off ramp," the proposal must be read as requiring that affected customers remain on Schedule 500 permanently.

Q. What level of projected industrial load growth is RMP's proposal intended to address?

A. Mr. Griffith states that 264 MW of new industrial load is projected for Utah in the next five years. This is an average addition of about 53 MW per year. This is about half the 100 MW of annual growth projected for Utah residential and commercial customers over that same time period.[3]

Q. What is your overall assessment of this proposal?

A. RMP's proposal to charge new and growing industrial customers higher rates than otherwise similarly-situated customers is a form of vintage pricing, a pricing scheme in which customers are charged discriminatory rates based upon the date at which they initiate utility service. This form of price discrimination

lies well outside the bounds of generally-accepted ratemaking principles in the United States. I recommend that the Commission reject the Company's proposal to introduce vintage pricing to Utah.

RMP's attempt to introduce vintage pricing in Utah is a radical proposal that is rife with problems. These problems have implications at the highest levels of public policy, and they are fatal to the establishment of just and reasonable rates. At a secondary level, the proposal is further burdened with a flawed rate design, which would introduce a host of pricing distortions and unintended consequences. In my opinion, the Company's vintage pricing proposal is not in the public interest. It will not produce rates that are just and reasonable. I strongly recommend that it be rejected by the Commission.

Q. Has RMP made other vintage pricing proposals in the past?

A. Yes. Vintage pricing was proposed in Utah by RMP's predecessor, Utah Power & Light Company ("UP&L"), in the early 1980s, but the proposal was withdrawn by the applicant in 1982.[4] Around that same time, UP&L filed a vintage pricing proposal in Wyoming that went to hearing and was soundly rejected by the Wyoming Commission.[5] Vintage pricing was also recently proposed by RMP in Wyoming; the Company's most recent Wyoming proposal was subsequently withdrawn pursuant to a settlement agreement, with the

[3] For derivation see discussion on p. 21 of this testimony.
[4] The proposal was initially presented in Docket No. 79-035-12, and then bifurcated into Docket No. 81-035-12.
[5] Public Service Commission of Wyoming, Docket No. 9441, Sub 13, Order issued April 13, 1982.

stipulating parties agreeing to examine load growth issues in a Commission-sponsored collaborative.[6]

Q. Will you provide a summary of your concerns with the Company's proposal?

A. Yes. The following outline briefly identifies many of my specific objections to RMP's vintage pricing proposal:

- RMP's vintage pricing proposal has serious negative implications for public policy in Utah as it sends a strong anti-development message to businesses that wish to locate or grow in Utah.
  - RMP's proposed premiums of 25-30 percent are punitive.
  - As currently proposed, affected customers would remain subject to vintage pricing permanently.
- RMP's vintage pricing proposal is incompatible with established principles of ratemaking.
  - RMP's proposal is unduly discriminatory among industrial customers within Utah, and between Utah customers and customers in other states.
  - RMP's proposal constitutes an asymmetrical application of marginal-cost pricing principles to the detriment of customers.
  - RMP's "price signal" arguments are selectively applied and do not withstand close scrutiny.
- RMP's vintage pricing proposal is an overreaction to projections of Utah industrial growth.
  - Utah's projected average annual industrial load growth over the next five years is approximately one-half of one percent of the current demand on the PacifiCorp system. This level of growth does not warrant consideration – let alone adoption – of a radical pricing scheme.
  - RMP provides absolutely no evidence that rates for existing Utah customers will be particularly impacted as a result of Utah industrial load growth.

[6] Public Service Commission of Wyoming, Docket No. 20000-277-ER-07.

- RMP's proposed rate design would introduce a host of pricing distortions and unintended consequences.
  - The proposed rate design imposes an abrupt and dramatic rate impact of $11.5 million on a customer over twenty years as a new customer's demand (or growth in demand) crosses from 9,999 kilowatts to 10,000 kilowatts. Such a draconian impact for an increase of 1 kW in demand is fundamentally unreasonable and is anathema to good rate design.
  - The introduction of price discrimination between similarly-situated customers will nearly always result in attempts to circumvent the punitive price; this will lead to a host of unintended consequences, including the distortion of metering configurations to serve customers, and attempts to retain the benefits of grandfathered status by transferring the "meter rights" to new owners who may be in entirely different businesses than current customers.
  - Customer innovation in response to two-tiered pricing will create a perceived "need" to design and enforce new regulations to keep customers from figuring out ways of getting around the pricing regime, followed by adjudications before the Commission to resolve disputes.
  - Contrary to the impression conveyed by RMP that its vintage pricing proposal is intended primarily for the benefit of existing customers, any increase in revenues that would be collected from RMP's vintage pricing mechanism would <u>not</u> automatically flow through to the benefit of other customers. Instead, 100 percent of the incremental revenues from Schedule 500 would flow to the Company until such time as new rates were established following a <u>subsequent</u> rate case.

<u>Public policy concerns</u>

Q. Can you elaborate briefly on your public policy concerns?

A. Yes. At the highest policy level, adoption of RMP's proposal would send a strong negative message about doing business in Utah, namely, that new and growing businesses in the state will be singled out and penalized through dramatically higher energy rates. Such a policy would severely undercut the

efforts of Utah policymakers to advance the economic vitality of the state by attracting major new employers. It is particularly bad timing to introduce such a change during a period of looming recession. I have participated in regulatory proceedings in twenty-seven states, and I am not aware of any state in the country that has adopted a regulatory policy so hostile to business development and growth. If anything, states expend considerable effort recruiting new businesses, and to the extent that electric rate treatment is a factor in this effort, it is more likely to appear in the form of a temporary discount from standard rates – quite the opposite from what has been proposed here.

Incompatibility of RMP's proposal with established principles of ratemaking

Q. Why is RMP's vintage pricing proposal unduly discriminatory?

A. A general principle of ratemaking is that rates should not be unduly discriminatory. This general principle is recognized in Utah law, which requires the Commission to take corrective action if the Commission finds that a rate is "discriminatory." [U.R.C. 54-4-4] A reasonable test of whether a rate is unduly discriminatory is whether it results in different charges for customers that are similarly situated. Clearly, under RMP's proposal, customers with identical usage characteristics would be charged very different rates depending on the date at which the customers initiated service. To take this even further, if vintage pricing is adopted, Utah would face a situation in which RMP customers who produce the same end-use product as other RMP customers – and use the same amount of

power – would be charged dramatically different rates, unjustly biasing their relative competitive positions. In my opinion, a pricing proposal which causes such a result is unduly discriminatory on its face and is not in the public interest.

Presumably, RMP believes that the dates at which customers initiate service or experience growth is the basis for deeming them dissimilarly situated for the purpose of price discrimination. I strongly disagree. Such distinctions do not hold up over time, nor do they justify the dramatic and permanent rate disparity between a new customer with a load, say, of 9.8 MW, who would pay embedded rates, and a new customer with a load of 10.2 MW, who would pay much higher premium rates on its entire 10.2 MW load.

Q. But don't all size-based rate schedules have a cutoff somewhere?

A. Yes, but it is a responsibility in rate design to provide a rational transition or relationship from one rate to another. That is not the case here. The rate differentials between similarly-situated customers under RMP's proposal will be extreme.

Q. Are there other aspects of RMP's proposal that are unduly discriminatory?

A. Yes. The proposal is unduly discriminatory toward a class of customers (industrial) as well as towards the state of Utah. RMP's proposed line of demarcation for triggering a vintage rate premium is limited to individual customers (or growth) with loads that are 10 MW or greater, even though other groups of customers on the RMP system are expected to make contributions to system growth that are larger than what is projected for Utah industrial customers,

but without being subjected to vintage pricing. For example, according to PacifiCorp's 2007 IRP, Utah residential and commercial customer growth from 2007-2016 is projected to add an average of 515 GWH per year of new load to the system,[7] which requires mores than 100 MW per year of generation capacity. This is nearly double the generation capacity needed to serve the 53 MW per year of new Utah industrial load growth that RMP is projecting to average over the next five years. Yet RMP is not asking new Utah residential and commercial customers to pay vintage rates. Moreover, RMP appears to be singling out industrial load growth in Utah and Wyoming for vintage pricing proposals because those states have the highest projections of load growth on the PacifiCorp system. This type of inter-jurisdictional discriminatory pricing would create an unreasonable bias against locating or expanding businesses in Utah compared to PacifiCorp states that are not subject to vintage pricing (e.g., Idaho).

Q. When the Wyoming Commission ruled on Utah Power's vintage pricing proposal in 1982, did that Commission find that the Company's vintage pricing proposal would result in rates that were unjustly discriminatory?

A. Yes. In that order the Wyoming Commission found that:

> Utah Power has not borne its burden of proof with evidence showing: that "vintage" pricing is just and reasonable and meets the W.S. 37-2-119 requirement that the proposed rates are based upon existing facilities which are "used and useful" for Wyoming service; and that the proposal will not result in unfairly or unduly discriminatory and preferential rates between classes and users within the industrial class, and between Wyoming users and similar users in other states. This conclusion is reinforced by the substantial evidence of the Intervenors showing unfair and unjust discrimination and preferences arising out of the "vintage" pricing concept; and the evidence

[7] Derived from PacifiCorp 2007 IRP, Appendix A, pp. 3-4.

> demonstrating that Utah Power's current and projected systemwide growth reasonably compares with that of prior years when Wyoming users supported the far greater growth in the other states served by Utah Power. Utah Power's vintaging proposal is unsupported and should be denied. [8]

Vintage pricing was unsupported and unjustly discriminatory in Wyoming in 1982, and it is equally unsupported and unjustly discriminatory in Utah today.

Q. Are you familiar with RMP's arguments about the merits of sending proper price signals by charging rates based on marginal cost?

A. Yes, I have reviewed the testimony of RMP witness Karl McDermott.

Q. What is your response to these arguments?

A. I do not dispute that economic theory demonstrates that a market which sets prices based on marginal cost sends proper price signals. At the same time, RMP's appeal to economic theory to support its vintage pricing proposal must be viewed in the context of the principles of monopoly pricing regulation in the United States, as well as in the context of RMP's specific proposal for Utah. In both contexts, RMP's arguments are one-sided, selectively applied, and unpersuasive. The fact that state regulators in the United States do not routinely set utility rates equal to marginal cost is not the result of a simple oversight on the part of the regulators.

Q. If marginal cost pricing sends proper price signals, why aren't utility rates in the United States routinely set equal to marginal cost?

[8] Public Service Commission of Wyoming, Docket No. 9441, Sub 13, Order issued April 13, 1982, paragraph 58.

A. Economic theory demonstrates that marginal cost pricing will occur naturally in markets that are perfectly competitive. Furthermore, theory shows that competitive markets will drive the market-clearing price to a level that is equal to the minimum average cost of production, including the return to owner's capital necessary for technologically-efficient firms to remain in business. In contrast, marginal cost pricing will not generally occur in markets that are natural monopolies, absent government intervention. Moreover, and of great significance to this proceeding, it is well understood that setting the price of a monopolist's output equal to its marginal cost will not result in the establishment of prices that are also equal to average cost, except entirely by happenstance. Indeed, setting a monopolist's price equal to marginal cost may result in prices that are greater than, or less than, average cost.

In the United States, utility regulators are charged with the responsibility to ensure that a utility is given the opportunity to earn sufficient revenue to compensate its investors for the capital costs of its business, including service on its debt and dividends on its stock. [*Federal Power Commission v. Hope Natural Gas Company* (320, US 391, 1944)]. In general, American regulators have found that this objective is best met through setting prices based on the utility's embedded costs, a variation of average cost pricing. As I noted above, there is no basis to presume that setting rates based on marginal cost will recover a utility's average costs. Similarly, there is no basis to presume that rates based on marginal cost will recover a utility's embedded costs. In general, such rates will produce

revenues that are either less than the amount necessary to provide sufficient revenue for a utility to compensate its investors, or more than the amount necessary, with the theoretical possibility that the correct amount of revenue could be produced purely by chance.

In sum, in the U.S., utility regulators are constitutionally required to consider equity matters in setting rates when recovery of investors' capital is at issue. This obligation rules out simply setting rates equal to marginal cost.

Q. But suppose a utility was in a situation in which its marginal costs exceeded its embedded costs, such that investors were assured an opportunity to be compensated for their prudently-invested capital if rates were set equal to marginal costs. Shouldn't rates be set equal to marginal cost in that situation?

A. No. This question suggests that it would be reasonable to adopt an asymmetrical application of marginal cost pricing. That is, it suggests a regulator could reasonably adopt an approach in which marginal cost pricing would be applied if it recovered sufficient or more-than-sufficient revenues to compensate shareholders for capital invested, but would not be applied in those instances in which it produced insufficient revenues to do so. Such an asymmetrical application, in which shareholders could experience the upside benefit from marginal cost pricing while being protected from the downside risk, would clearly be inequitable for utility customers.

Q. Does RMP's proposal suggest an asymmetrical application of marginal cost pricing?

A. Yes. In the recent Wyoming proceeding, RMP witness Karl McDermott was asked in a data request to assume a situation in which embedded cost was greater than marginal capacity cost, and then was asked whether he believed that shareholders should be at risk for all capacity costs in excess of marginal cost. Dr. McDermott replied, in part, "that under rate of return regulation with a constitutional prohibition on takings of private property, the firm would be provided an opportunity to recover its prudently-incurred costs of providing generation service, including its cost of existing capital."[9] In other words, Dr. McDermott acknowledged that under rate of return regulation, marginal cost pricing could not be used to set rates that did not provide the utility an opportunity to recover its prudently-incurred costs, including its cost of existing capital. In my opinion, this (correct) admission demonstrates that RMP's proposal to set higher rates for new and growing loads based on marginal cost principles is asymmetrical: it could be used to charge customers more than embedded costs, but it could not be used to charge customers less than embedded costs if that would deprive shareholders an opportunity to be compensated for their prudently-invested capital. Such an asymmetrical application is fundamentally unreasonable.

[9] Wyoming PSC, Docket No. 20000-277-ER-07. RMP Response to Questar Data Request 1.5(d). Dr. McDermott's full response to this question is: "Dr. McDermott cannot answer the question as written as the hypothetical has not provided enough information. Dr. McDermott would have to know the specific form of regulation that the firm was operating under, the specific policy decisions made by the regulator concerning these issues and the specific law that governs the regulation of the firm. Dr. McDermott will note that under rate of return regulation with a constitutional prohibition on takings of private property, the

Q. You stated that RMP's price signal argument supporting its proposal is selectively applied. Please explain.

A. In support of its vintage pricing proposal RMP asserts that: (1) mandating premium pricing for new and growing customers will send better price signals regarding the cost of incremental generation; and (2) charging higher rates for new and growing customers will allow rates for all other customers to be lower than they would be absent vintage pricing. Clearly, RMP's arguments concerning price signals are being inconsistently applied. On the one hand, RMP extols the benefits of exposing new and growing customers to price signals that reflect the high incremental cost of generation. Then, at the same time, RMP extols the benefits of dulling those same price signals for all other customers. The net effect of RMP's proposal is to provide no net improvement in price signals to customers as a whole, as the Company's proposal sends price signals in opposite directions for customers based on vintage. The upshot is the proposal is not credibly defended on the grounds of "improving price signals."

Q. Would charging new customers higher rates through Schedule 500 reduce the revenue requirement for other Utah customers?

A. Not necessarily. The increase in revenues that would be collected from RMP's vintage pricing mechanism would not automatically flow through to the benefit of other customers. In fact, as designed by RMP, this would not happen. If RMP's proposal is adopted, 100 percent of the incremental revenues from

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firm would be provided an opportunity to recover its prudently-incurred costs of providing generation service, including its cost of existing capital."

Schedule 500 would flow to the Company until such time as new rates were established following a subsequent rate case. After a subsequent rate case, any revenues from Schedule 500 are proposed to be recognized as a revenue credit going forward. But until that occurs, the full benefit of the incremental revenues would flow to RMP shareholders.

Q. Isn't it true that an increase in Utah load will result in a greater allocation of costs to Utah?

A. Of course it will. But Utah will also have more kilowatt-hours of usage to spread those costs over. The impact on existing Utah customers can only be measured by evaluating the per-unit rate impact of Utah growth. This requires identifying the incremental expense of meeting new Utah load, which is a system cost, and then allocating to Utah its jurisdictional share of total system expense (with its higher load) using the methodology adopted in the Multi-State Process. This is the type of analysis that must be performed to identify whether there is even a problem facing existing Utah customers with respect to the rate impacts attributable to Utah industrial growth.

RMP has failed to provide such an analysis. Instead, the Company proposes that this Commission adopt stridently anti-development industrial tariffs now, and *then* study the issue – a "shoot first, ask questions later" approach to public policy. This approach is ill-advised.

Rate design and unintended consequences from discriminatory pricing

Q. Are there other flaws in the rate design of RMP's proposal?

A. Yes, while these flaws are of secondary importance to the larger question of introducing a radical and punitive pricing mechanism, they illustrate the practical difficulties that would be faced by customers and the Commission if this proposal were adopted. For example, the proposal imposes an abrupt and dramatic rate impact as a new customer's demand (or growth in demand) crosses from 9,999 kilowatts to 10,000 kilowatts. The premium paid for this last 1 kW increase is enormous. As shown in UAE-WM Exhibit COS/RD 1.4, the twenty year premium paid by a customer for crossing over this line would be in the neighborhood of $11.5 million on a net present value basis, using very conservative assumptions. This premium is so draconian, in part, because RMP's rate design would apply Schedule 500 not only to the increment above 10,000 kilowatts, but to the total 10,000 kilowatts once the threshold is crossed. This means that adding just one kilowatt of demand – one time, for one month – could trigger an $11.5 million rate penalty. From a pure rate design standpoint, this type of rate transition makes no sense: it is anathema to good rate design. Transitions from one rate to another should be designed such that a rational relationship is maintained between the two rates.

Q. Would there be other consequences from adoption of this rate design?

A. The introduction of price discrimination between similarly-situated customers will nearly always result in attempts to circumvent the punitive price; this will lead to a host of unintended consequences, including the distortion of

metering configurations to serve customers. Further, if RMP's proposal is adopted, interesting questions would arise at the time that large facilities served under embedded rates reach the end of their useful lives and potentially attempt to retain the benefits of grandfathered status by transferring the "meter rights" to new owners who may be in entirely different businesses than current customers. Customer innovation in response to two-tiered pricing will create a perceived "need" to design and enforce new regulations to keep customers from figuring out ways of getting around the pricing regime, followed by adjudications before the Commission to resolve disputes.

Q. Does this conclude your direct testimony?

A. Yes, it does.