Before the
Public Service Commission of Utah

In The Matter of the Investigation of the Costs and Benefits of PacifiCorp's Net Metering Program	Docket No. 14-035-114

Rebuttal Testimony of
Pamela Morgan

On The Topic of
The Benefit-Cost Framework for Net Energy Metering

On Behalf of
Utah Clean Energy, the Alliance for Solar Choice, and Sierra Club

September 8, 2015

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I. INTRODUCTION

Q. Please state your name.

A. My name is Pamela Morgan.

Q. Did you also provide direct testimony in this proceeding?

A. Yes, I provided testimony on behalf of The Alliance for Solar Choice, Sierra Club, and Utah Clean Energy ("Joint Parties").

Q. Are you providing rebuttal testimony on behalf of the Joint Parties?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal is to provide the context for and introduce the rebuttal testimony of all of the witnesses testifying on behalf of the Joint Parties and to address the direct testimony of witnesses for the Division of Public Utilities ("DPU"), the Office of Consumer Services ("OCS"), and Rocky Mountain Power ("RMP" or "Company").

Q. Please provide an overview of the Joint Parties' rebuttal testimony.

A. The Joint Parties rebuttal testimony consists of testimony from the same three witnesses that presented direct testimony on behalf of the Joint Parties. In addition to the conclusions and recommendations I provide, Witness Woolf provides rebuttal testimony on the general framework proposed by DPU, OCS, and RMP and provides an illustrative cost and rate impact analysis. Witness Norris responds to the methodological components of the analytical frameworks proposed by the Division and RMP.

Q. Please provide a summary of your conclusions and recommendations in regard to the direct testimonies of RMP, DPU, and OCS.

- The Commission should adopt the joint parties' cost impact and rate impact analyses as the framework for assessing the costs and benefits of net metering per Utah Code Ann. § 54-15-105.1. A cost of service approach, as proposed by DPU, OCS and RMP collapses the two sections of this statute and will not meet the Commission's needs.
- The cost/benefit analysis framework should identify– and make an attempt to ascribe a value to – costs that RMP could avoid and benefits it could obtain from customer-sided generation, even if requires changes in how RMP plans, builds, and maintains its distribution system and involves new or different equipment in the interconnection of the DG with the distribution system.
- The Commission should reject cost/benefit analysis framework approaches that treat customer-sided generation investments differently from customer-sided energy efficiency investments. In terms of avoiding or postponing utility system costs, customer-sided generation and energy efficiency have the same beneficial effect of minimizing future revenue requirements.
- Concerns about utility financial health should not influence the development of a cost/benefit analysis framework for net metering.
- The Commission should decline to address the ratemaking proposals – e.g., for a separate rate class and for a specific rate design for residential net metering customers – RMP makes in this docket. These proposals do not relate to the development of a cost-benefit framework and should not distract from the Commission's stated purpose for this

proceeding. Despite the fact that these proposals stray from the purpose of developing a framework, I address RMP's proposal to establish a separate rate class and a specific rate design for residential net metered customers:

- Any proposal to segregate net metered accounts – particularly just net metered accounts with solar generation – would require deep and broad evidentiary support, including evidence that accounts in the proposed class are truly different from other ratepayers with respect to how they take electricity from the system. Such evidence is not and should not be presented in this case as it goes beyond the purpose of designing an analytical framework for the net metering program.
- Any tariff proposal for the electricity residential ratepayers with customer-sided solar generation take from the utility would require deep and broad evidentiary support, including identification of the possible consequences of the rate design. Such evidence is not and should not be presented in this case as it goes beyond the purpose of designing an analytical framework for the net metering program.

II. PURPOSE OF THE COST/BENEFIT ANALYSIS FRAMEWORK

Q. What approach have the joint parties' taken to the framework the Commission initiated this proceeding to develop?

A. The Joint Parties have worked diligently to adhere to the Commission's guidance in producing a framework by which the Commission could identify the costs and benefits of net metering, which is what we understand section Utah Code Ann. § 54-15-105.1 (1) to

require. We understand that a framework is necessary because the Commission will need to make this determination from time to time, as the conditions and assumptions relevant to understanding the costs and benefits of net metering change. The Commission and stakeholders should have a consistent and comprehensive method for making such determinations as conditions change.

Q. What is your understanding of what the DPU, OCS, and RMP proposed regarding the Commission's requested framework in their direct testimony?

A. DPU, OCS and RMP believe a cost of service study (COSS) will satisfy the requirement for determining the costs and benefits of net metering and simultaneously produce a ratemaking-qualified answer to the question underlying Utah Code Ann. § 54-15-105.1(2); i.e., whether the Commission should approve changes to "ratemaking structure, including new or existing tariffs." DPU, OCS, and RMP appear to be proposing that the Commission collapse these two sections into one for what they describe as "practical" reasons.[1]

Q. Is collapsing these two sections in this manner consistent with Utah Code Ann. § 54-15-105.1?

A. No. The statute contemplates a two-step process, which is consistent with the Commission's discussion in its most recent Order.[2] If the Legislature did not intend for

[1] Davis Direct Testimony, l. 34-36; Hayet Direct Testimony, l. 109-119; Steward Direct Testimony, l. 28-42.
[2] Order Re: Conclusions of Law on Statutory Interpretation and Order Denying Motion to Strike, Docket No. 14-035-114, July 1, 2015, page 10-11.

the Commission to engage in a two-step process, there would have been no reason for the first section requiring a determination of the costs and benefits. The Commission could simply have engaged in ratemaking.

Q. Should the cost/benefit framework the Commission requested lend itself to practical application in the types of settings, including ratemaking, during which the commission might evaluate the net metering program?

A. Yes, the output of the cost/benefit analysis should be useful for the various uses for which the Commission might need it, including ratemaking. Obtaining useful output, however, depends on designing a solid cost/benefit analysis, with inputs that both capture current circumstances and anticipate the future, and methodologies that are sound and coherent with other methodologies the Commission uses for cost/benefit analysis. It would serve the Commission poorly to have step two ratemaking considerations dictate the inputs or methodologies in the cost/benefit analysis.

The two-step process the statute contemplates is not uncommon in economic regulation. For example, regulation uses integrated resource planning (IRP) to assess various supply- and demand-side resource options in preparation for determining in a rate case the prudence of resource investments and expenditures a utility makes. The IRP output is useful to rate case prudence reviews, but no one would suggest that the inputs and methodologies used should be the same as those used for rate cases. Cost/benefit analyses – whether for a new natural gas-fired combustion turbine or an air conditioner efficiency program, or for customer-sided generation participating in a net metering

program – are inherently future-looking. How the output of the analyses informs ratemaking should be a separate subject, considered in a rate case.

Q. Are there other practical considerations of how the framework will be applied in the future that should be considered now?

A. The Commission requested parties to address the framework to evaluate net metering under the requirements of Utah Code Ann. § 54-15-105.1, but net metering exists in the broader context of customer-sided decisions and actions, which include investment in generation and storage or energy management systems, as well as the more traditional energy efficiency measures. A good framework for identifying costs and benefits should be workable for all of these decisions and actions, either separately or in combination. The framework should also be robust enough to provide insight regardless of the classification of the customer account (i.e., be capable of application to non-residential accounts).

Q. Does the Joint Parties' framework provide the flexibility to account for these other situations?

A. Yes, the cost impact and rate impact analyses witness Woolf describes, and for which witness Norris provides methodological detail, can be used with any number of specific customer-sided energy technologies, with specific profiles. As with solar PV, applying the framework to other technologies to identify costs and benefits will require information on how the account locations with such technologies actually interact with the utility system.

In contrast, RMP's proposed framework addresses only solar PV and only for residential accounts.[3] What will the Commission do if accounts with other types of customer-sided generation begin to participate in net metering? How will the Commission apply the framework to non-residential customer accounts that participate in net metering? RMP's proposal does not answer these questions.

III. SHORTCOMINGS OF COST OF SERVICE APPROACHES TO THE ANALYTICAL FRAMEWORK

Q. Why do DPU and RMP witnesses propose[4] that the Commission use COSS as the framework for determining the costs and benefits of net metering to RMP?

A. Witnesses Davis and Steward argue that, because one of the choices under Utah Code Ann. § 54-15-105.1 (2) is changes to "ratemaking structure, including new or existing tariffs," and because a COSS is a consideration in ratemaking, the Commission should just collapse the steps and use a COSS as the framework.[5]

Q. What information does a COSS provide?

[3] Steward Direct Testimony, l. 28-42.
[4] Davis Direct Testimony, l. 34 – 36; Steward Direct Testimony, l. 28 – 42.
[5] This position appears to ignore that § 54-15-105.1 (2) also provides for a charge or credit, which may be outside of tariffs in the same way that witness Steward attempts to distinguish the way in which ratepayers fund the incentives provided to other ratepayers for investments in energy efficiency technology that lower the amount the investing ratepayers take from the utility system.

A. A COSS looks back at costs already incurred and qualified for inclusion in a test year revenue requirement and asks: since many of these costs relate to investments that serve many different kinds of ratepayers who interact with them differently, how should we allocate the costs among the ratepayers? Some COSS use marginal costs to determine this allocation but, in application, the COSS is limited to allocating embedded costs and it does this in two ways:

- **Rate spread**: allocating the costs among the different tariffs that the utility offers. Most of the many competing methodologies and academic work concerning COSS relates to rate spread.

- **Rate design**: deciding how to charge the ratepayers under a particular tariff for their interaction with the utility system. Here is particularly where other considerations, such as those articulated by James Bonbright, come into a Commission's ratemaking decision.

Q. Would rates based entirely on the results of a COSS ensure that the revenues a utility collects from a given ratepayer exactly equal the costs the utility will incur in the test year for that ratepayer, including return of and on any system investment?

A. No. Witness Steward talks[6] about rate design as a means of ensuring that the revenues RMP can collect from a given ratepayer equal the costs of that ratepayer. If a ratepayer's revenues – over some period, presumably[7]– are lower than the costs assigned that

[6] Steward Direct Testimony, l. 114-119.
[7] Witness Steward is not clear if this should be one billing period or a year or some longer period.

account, then that ratepayer is shifting costs to other ratepayers on the tariff. This is an illusion.

Ratepayers come and go, and change their electrical equipment and use of it all the time. The costs of RMP's system do not relate to specific ratepayers on a specific tariff.[8] RMP makes investments for what it projects will be overall use of that system in the future, usually based on some notion of an "average" or "representative" ratepayer of various broad types. For generation and transmission purposes, the driver is not even an average ratepayer but a projection of load based on various econometric drivers. For distribution, investments are made based on what is happening at specific places in the distribution system. Most operating costs follow the investments, although some relate to maintaining ratepayer accounts. None of this has anything to do with any single ratepayer, particularly one who may have opened an account within the last couple of years or even the last month.

Rate design is most often about how to send some kind of price signals to the ratepayers on a given tariff and, except for the residential class/tariff, how to make the movement of a ratepayer from one tariff to the next as smooth as possible as that account's interaction with the system changes. Hence, there is usually a lot of debate about declining blocks, or inverted blocks, or time-of-day periods. But it is not about trying to make sure no

[8] This may be the case for very large ratepayers, such as industrial sites using a number of megawatts and possibly served by their own substation. Utilities do not, however, assign different costs to residential or most commercial accounts based on where that account is located – rural, urban, etc. – or the square footage of the account – studio apartment or 10,000 square foot home.

ratepayer on the schedule ever shifts costs to any other ratepayer on that schedule because all do, at some point or another.

Q. Does the information provided by a cost of service study enable the Commission to determine the costs and benefits of the net metering program?

A. No, it does not. Only the cost impact and rate impact analyses witness Woolf describes will support the Commission in making the determination Utah Code Ann. § 54-15-105.1 (1) requires.

Q. Why is that?

A. A cost impact analysis, such as witness Woolf describes, is a decision-making tool, designed to help a utility (or any other person or organization making a decision to spend money) decide whether the expenditure is worthwhile. It is all about what will be gained, or avoided, in the future. For purposes of the study, neither the costs nor the benefits yet exist. As explained above, COSS is about the test year revenue requirement effects of decisions already made, some a long time ago. One never sees a utility using a COSS to evaluate a new transmission or generation investment, or a Commission evaluating proposed incentives for ratepayer energy efficiency investments based on putting the costs and load changes of these incentives through a COSS. The orientation of the two is diametrically different.

Q. Could a substitution of a COSS for a cost/benefit framework have any other undesirable consequences?

A. Yes. This effectively collapses the two requirements of Utah Code Ann. § 54-15-105.1 and would not appear to enable the Commission to consider whether a credit or surcharge may be an appropriate response to the costs and benefits that it determines exist with customer-sided generation, nor would it enable any assessment of credits, surcharges or ratemaking structure for non-residential net metered accounts under the net metering program. Importantly, as described above, using the COSS methodology misses the impact of distributed solar on the long-term revenue requirement necessary to serve ratepayers.

IV. THE IMPORTANCE OF INCLUDING DISTRIBUTION COSTS AND BENEFITS IN THE FRAMEWORK

Q. Is it important that the framework to determine the costs and benefits of net metering include the effect of customer-sided generation on utility distribution system costs?

A. Yes. Even if these costs are "difficult to analyze"[9] it is critical that the framework establish the importance of identifying the potential of customer-sided generation to mitigate or eliminate certain distribution costs and set in motion work by the utility to identify not only what costs it claims it is incurring to integrate customer-sided generation into its system but what benefits it could secure from these resources.

[9] Hayet Direct Testimony, l. 193

First of all, not all of the effect of customer-sided generation on the utility transmission and distribution system are hard to measure. This generation reduces line losses, which utilities regularly measure in line loss studies. Second, as I explained above, a cost/benefit analysis is about the future. That is why a COSS framework is inappropriate. The important cost/benefit question is this:

What costs are there, now or in the future, that could be mitigated or disappear, and what benefits could emerge or grow because of customer-sided generation?

The distribution system is not currently designed or planned to make optimal use of distributed resources; current methods do not look to customer-sided generation to relieve tight capacity situations, whether at the circuit, feeder, or substation levels. Nor do current interconnection procedures specify the installation of equipment that would enable the utility system to achieve the greatest possible system value from customer-sided generation, such as through ancillary services or demand response, which these ratepayer accounts could provide.

Avoiding costs and obtaining benefits may require changes in how RMP plans, builds, and maintains its distribution system and may involve new or different equipment in the interconnection of the DG with the distribution system. The cost/benefit framework should identify these opportunities – and make attempts to ascribe a value to them – and provide the basis for their pursuit. Ignoring such benefits encourages RMP to ignore them as well.

Q. Will including these potential benefits and costs in the framework be sufficient to ensure that RMP's system avoids as much cost and receives as much value as possible from customer-sided generation?

A. No. The Commission should complement the cost/benefit framework with two other actions in related forums. First, it should modify integrated planning procedures to ensure that RMP evaluates the ways and extent to which customer-sided generation could provide system value at the generation and transmission level. Second, the Commission needs to ensure that planning and modification of the distribution system becomes transparent and subject to stakeholder and Commission input so that the capabilities of the distribution system evolve along with the needs and wants of RMP's customers. And the collection of data and processes for making meaningful, actionable information from that data need to be paramount.

V. SIMILARITIES BETWEEN ENERGY EFFICIENCY AND DISTRIBUTED GENERATION

Q. Do various parties claim that customer-sided generation is different from energy efficiency or demand-side management (DSM)?

A. Yes. In a number of places, party witnesses argue that DSM is different from customer-sided generation in the nature of its interaction with the utility system and in how the utility should determine its ability to reduce future revenue requirements.[10]

Q. Do you agree that ratepayer accounts where investment in DSM has occurred are different from ratepayer accounts with customer-sided generation?

A. No, not with respect to the use these accounts make of the utility system. Both of these types of accounts, holding other factors equal, will exhibit on the average lower billing period use from the utility's system than accounts – whether or not in the same ratepayer class or on the same tariff – without investments in DSM or generation. In giving the examples of lighting and cooling measures, witness Steward confuses measures with the meter. Over the billing period, for a residential account, all that changes the size of the bill and the revenues RMP collects is the amount of electricity taken from the system. I strongly suspect that no two ratepayer accounts with lighting and cooling efficiency measures have the same metered billing period consumption. Nor is it clear that ratepayers making such investments will always have lower metered use of the system, since other actions or investments at that ratepayer account may offset the DSM-related usage reductions.

Moreover, I do not see any difference between a rate for a given billing determinant and a surcharge. With respect to the utility, both produce revenue; with respect to ratepayers, both increase the bill.

[10] Steward Direct Testimony, l. 255 – 265 and 272 - 276

Regardless whether a ratepayer investment at a residential or small commercial account is in DSM or customer-sided generation, the financial interaction of these accounts with the system should differ only in degree (amount taken). Differences in when these various ratepayers take power are not relevant to their billing interaction with the utility unless the utility has time-of-use rates in place and differences in the highest level of that take over a given billing period are not relevant unless the utility has demand meters and rates in place.

VI. FUTURE POLICY IMPACTS OF HOW RMP TREATS CUSTOMER-SIDED GENERATION

Q. Should RMP's future financial health be a consideration in the design of a cost/benefit analysis framework for net metering?

A. No. Witness Davis invokes the death spiral scenario when he notes that: "Finding the balance between compensating net metering customers while keeping the utility healthy to provide clean reliable power is not an easy task. Solving this dilemma will likely get harder as DG penetration increases."[11] And witness Hayet relies on an assumption central to this scenario by building into his cost/benefit framework an amount for fixed costs that only grows over time, and never shrinks.[12] This happens notwithstanding that system assets are depreciating and the growing customer-sided generation should be

[11] Davis Direct Testimony, l. 256 – 257.
[12] Hayet Direct Testimony, l. 336 - 344 and 386 – 403. In witness Hayet's ten-year cost/benefit example, he escalates the initial assumed level of fixed costs by a flat 2.5% per year.

allowing the utility to decrease system investment, particularly if it is working to maximize the amount of benefit these ratepayer investments can bring to the system.

Utility financial health will not suffer from increasing amounts of customer-sided generation if the Commission acts to ensure that approved rates provide the utility a reasonable opportunity to cover its revenue requirement. Other ratepayers will not suffer if both the utility and Commission recognize that fixed costs change over time and offer the greatest potential for change if there is an expectation that measures will be taken to realize those benefits.

Q. Is customer-sided generation the only change affecting the amount of electricity utilities are currently selling?

A. No. The cumulative effect of utility and governmental energy efficiency programs, energy efficiency investments ratepayers are making outside of regulation, and changes in the demographics and the economy are all significant drivers.

Q. From a policy perspective, would decisions that slow or stop ratepayer investments that lower their purchase of electricity from the utility be good for ratepayers or the utility?

A. No. Utility financial health and managing the costs ratepayers face in the future depend on adaptation, not resistance.

First, fixed costs are not truly fixed. If the costs relate to rate base (investment), then that investment is depreciating every year and the return necessary for it also is declining every year. The key questions for rate base are whether:

- Choices can be made that allow quicker adjustments in times of declining load (e.g. on the generation side, resources with optionality); and/or
- Practices in planning and acquisition/construction can help the utility postpone investments in such times.

If the cost is O&M, that too can fall as productivity rises. The key question for O&M is: What will spur the utility to engage in efforts to increase productivity?

Second, to the extent such efforts are successful, then all ratepayers are still worse off because costly new investments get made and raise rates as they enter rate base; revenues from increasing sales are unlikely to offset much if any of the revenue requirements associated with the new investment.

The better choice for all is if a utility works *with the ratepayers* willing to make these investments in customer-sided generation or other technologies that reduce the amount of grid electricity they need. The lost opportunities of resistance are investment and/or cost reductions that could have been gained and win-win approaches that could have been crafted to make the investments as valuable as possible to the utility system.

VII. RATEMAKING ISSUES

Q. Do ratemaking issues belong in this docket, given that its purpose is to develop a cost/benefit analysis framework for net metering?

A. No. RMP's direct testimony, however, places ratemaking issues squarely in front of the Commission.[13] Because the issues have been raised, the Joint Parties are compelled to address them. I address both the proposal for a separate rate class for residential customer and the specific rate design put forward for that alleged separate class by the Company.

1. SEPARATE RATE CLASS PROPOSAL

Q. Does RMP propose to create a new ratepayer class for residential ratepayer accounts that are net metered and design a tariff for this new class?

A. Yes, witness Steward explains that RMP will propose to put residential ratepayers that have customer-sided generation and use net metering in a separate class during an upcoming separate rate proceeding or a "phase 2" of this proceeding.[14] Witness Steward also outlines the rate design by which RMP proposes to collect revenue for the allocated revenue requirement.[15]

Q. Are ratepayer classes relevant to the development of a framework for determining the costs and benefits of net metering?

A. No. The cost/benefit analysis framework is about revenue requirement. Ratepayer classes are for allocating that revenue requirement first through rate spread and then, roughly, through rate design. It is not clear why RMP is making this proposal for a new

[13] See all of Steward Direct Testimony.
[14] Steward Direct Testimony, l. 28 – 42.
[15] Steward Direct Testimony, l. 294 – 306.

ratepayer class in this docket, which is about developing a cost/benefit analysis framework for net metering. Because RMP has made this proposal, the Joint Parties believe it is important to provide the Commission some of the concerns raised by the proposal.

Q. Does RMP's evidence support its conclusion that residential net metering accounts belong in a separate ratepayer class?

A. No. RMP attempts to support this proposal with the assertion that net metered residential accounts differ from other residential accounts because the investment these ratepayers make in distributed generation means that they take less electricity from the utility.[16] Residential ratepayers may take less from the utility than others for a whole variety of reasons, including significant investments in energy efficiency, that the building is a second or vacation home, or that a small number of people live in the building covered by the account.

RMP also argues that net metered accounts are different because some of them, at some times, export electricity to the grid. Any movement of the electricity after the transfer is by RMP to other ratepayer accounts using the utility system, the costs of which are allocated to all ratepayers through the COSS.

Q. Is RMP's statement that ratepayers with net metered accounts rely on the system to meet their electricity demand, whenever that occurs, a good justification for segregating them into a separate class?

[16] Steward Direct Testimony, l. 100 – 110.

A. No. All consumer accounts rely on the RMP system to meet their electricity demand, whenever and to whatever extent that demand occurs. Some require more on a steady basis. Some require less. Some are extremely peaky; others, not so much. Some are vacation homes with long gaps between all-on use. Some have pool pumps; some have heat pumps. Some steadfastly turn off lights when not in use; others leave lights on all the time. There are a myriad of differences between household electricity accounts. **All** could stand to be the subject of a "more refined determination" of how the ratepayers "influence each element of cost of service (generation, transmission, distribution, retail)." And many may fall within the concern RMP expresses that "While they may take less energy (kWh) from the grid, their overall demand (kW) requirements from the grid may remain relatively unchanged, which significantly influences cost incurrence and allocation."[17]

RMP would need to identify a broad range of these types of differences and their causes and do load research targeted to each "cause" before concluding that net metered accounts with customer-sided generation are different from other residential ratepayer account sufficient to create a separate class. It has not done so. Until it does, conclusions drawn from the load study of net metered accounts are interesting but fail to establish that the accounts are not "similarly situated" within the breadth of the residential ratepayer class.

[17] Steward Direct Testimony, l. 107 – 110.

Q. What policy implications do you see for distinguishing between residential customers based on the equipment – such as customer-sided generation or pool pumps – located at that account?

A. Aside from any legal considerations, which may be significant, differentiating among ratepayer accounts based on the equipment on their premises poses serious policy issues. Among other things, the Commission must require the utility to describe what decisions and actions it expects that the differentiation will cause and what effect those decisions and actions will have upon utility system costs, in all relevant time frames. Utilities often seem to offer ratemaking proposals as if doing so solves whatever problem they have identified. But rates are just part of a system and ratepayers will react to those rates, if not immediately, certainly over time. What will that reaction be? Who might help the ratepayers accomplish their reaction? What will the utility do then? Utility service and use is a very complex system and the probability of unintended consequences is high. Sound regulatory policy making requires this anticipation in resource planning; ratemaking should be no different.

These are all questions the Commission will want perspectives on if and when it must decide on this proposal in the proper docket.

2. RESIDENTIAL RATE DESIGN PROPOSAL

Q. What rate design does RMP propose for the new net metered residential ratepayer class?

A. RMP proposes[18] the following design for the electricity residential ratepayers with net metering take from the utility system; in other words, for the aspect of their relationship with the utility in which they are just like any other residential ratepayer:

- Two demand charges designed to recover demand-related generation and transmission costs and demand-related distribution costs allocated to the class according to the COSS. The demand charges would apply to the highest demand recorded at the ratepayer account each month, possibly during an on-peak period for the generation and transmission component.
- A flat per month customer charge designed to recover retail, miscellaneous, distribution-service, and distribution-meter costs, as assigned to the class according to the COSS.
- An energy charge for all remaining costs.

Credit for injections to the grid would be at avoided cost, eliminating the net metering construct based on retail credit as it is conceived of in each of the 44 states that have net metering policies. It is not clear if this avoided cost includes avoided losses or any benefit to the utility system provided by the investment in customer-sided generation.

Q. Does RMP explain why it is describing this tariff proposal in this docket, the purpose of which is to develop a cost/benefit framework for net metering?

A. No, RMP does not explain this. A proposed tariff would seem to be pertinent only to step two of the statutory process and, even then, to be just one possible approach, since the

[18] Steward Direct Testimony, l. 294 – 306.

statute mentions credits and charges as well. As with RMP's proposal to create a new ratepayer class, it is difficult to leave this proposal without comment even though it does not belong in this docket and is not actionable by the Commission. Consequently, I offer some broad comments below.

Q. What is your opinion of this proposed design?

A. Starting with the overall design, the primary effect is to dramatically lower the per-kWh cost of energy the account takes from the RMP system and dramatically increase the fixed amounts the accounts must pay on a per billing period basis. This is true whether the revenue requirement allocated to this new "class" is less, the same, or more on a per account basis than would have been allocated per account to the prior tariff under which these accounts took service. In other words, the price signal is that it is "cheap" to take electricity from RMP but very expensive to have a connection to the distribution system.

RMP does not say what types of ratepayer decisions and actions it anticipates this design would cause. Would ratepayers bundle energy management with their customer-sided generating systems to minimize any given 15-minute demand? Does that technology exist at the residential level? Or would ratepayers invest in storage for the same purpose? Would the design encourage ratepayers to find ways to reach complete disconnection from the utility system? Would the rate design slow investment in customer-sided generation—and is that a good outcome overall for RMP ratepayers or Utah?

I find interesting witness Steward's statement that "right now with rate design a residential [net metered] customer can achieve greater bill savings than a non-residential

customer for the same facility."[19] This is because some non-residential accounts have a rate design similar to that above, with a high percentage of costs collected through demand or fixed charges and a variable charge primarily covers only variable energy costs. The existence of this difference is not a question of fairness between ratepayers; it is a question of the importance the Commission has given to providing price signals to certain types of ratepayers. Price signals for increased volume of electricity use have been deemed important for household and smaller commercial accounts who might not otherwise realize that new system capacity will increase costs and rates. In particular, residential customers tend to lack the sophistication and tools to respond well to demand charges energy costs and increase profits. The demand charge construct that RMP has put forth would reduce a residential ratepayer's ability to respond to price signals for the largest component of their bill. In any event, the distinction witness Steward draws is the same whether the investment is in energy efficiency or customer-sided generation.

As with the proposal to make a new customer class, in a separate docket the Commission should demand that RMP analyze the decisions and actions likely to follow adoption of this rate design. If and when the Commission must address this proposal in a proper rate case, it should demand that RMP answer: with what consequences and, ultimately, at what cost?[20]

Q. Does this conclude your rebuttal testimony?

[19] Steward Direct Testimony, l. 164 – 169.

[20] Of course, this docket is about developing a cost/benefit analysis framework for net metering, not rate spread and rate design. Assuming the Commission postpones any ratemaking action until some later proceeding, these questions will be relevant then.

A. Yes.