Bruce M. Plenk
Utah Bar No. 02613
2958 N. St. Augustine Place
Tucson, AZ 85712
Tele: (520) 795-8611
Email: solarlawyeraz@gmail.com

Thadeus B. Culley
Keyes, Fox & Wiedman LLP
401 Harrison Oaks Blvd, Suite 100
Cary, NC 27513
Tele: (510) 314-8205
Email: tculley@kfwlaw.com

Counsel for The Alliance for Solar Choice

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**

REPLY COMMENTS OF THE ALLIANCE FOR SOLAR CHOICE ON DEVELOPMENT OF AN ANALYTICAL FRAME WORK TO EVALUATE THE COSTS AND BENEFITS OF THE NET METERING PROGRAM

February 20, 2015

The Alliance for Solar Choice ("TASC") respectfully submits these comments to reply to opening comments submitted by Rocky Mountain Power ("RMP" or "the Company"), the Office of Consumer Services ("OCS"), the Division of Public Utilities ("DPU"), Utah Clean Energy ("UCE"), and Sierra Club, submitted February 6, 2015 pursuant to the *Notice of Comment Period and Scheduling Conference* ("Notice"). TASC primarily responds to the comments of DPU, OCS, and RMP on factual issues, but also addresses several legal, procedural, and policy considerations, including the relevance of established cost-effectiveness tests to evaluating the net metering program.

With its Order in RMP's last general rate case ("GRC"), the Commission signaled that it will not rely solely on policy arguments and conclusory factual assertions to determine the future course for net metering customers. The Commission recognized that it needs substantial evidence of the costs and benefits of the net-metering program. That task begins with a diligent examination of how net-metering facilities interact with the grid.

The process immediately ahead of the Commission—technical conferences and the procedural schedule set for evidentiary hearings—will provide optimal value only if parties use these opportunities to identify and address key factual questions. A reasoned decision on the structure and inputs of the analytical framework calls for the Commission to make new factual findings to address questions that are novel and presently unresolved. A solid factual/evidentiary basis for the framework is needed to ensure that it reflects real conditions and serves its intended purpose of providing sufficient evidence in future proceedings.

> "*Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passions, they cannot alter the state of facts and evidence.*"
>
> —John Adams

I. PARTIES SHOULD EQUIP THE COMMISSION WITH THE INFORMATION AND EVIDENCE NECESSARY TO RESOLVE NOVEL FACTUAL QUESTIONS REGARDING THE IMPACTS OF THE NET-METERING PROGRAM ON THE GRID (AND OTHER RATEPAYERS).

The Company's last GRC revealed that the slate is mostly blank in terms of Commission findings on the actual characteristics of net-metering facilities. To the best of TASC's knowledge, the Commission has never addressed many of the factual questions that arose in that GRC, including: (1) whether customer-sited, small-scale solar shares the same characteristics as utility-scale, stand-alone facilities; (2) whether net-metering facilities create additional grid impacts that are not addressed through the interconnection process; (3) whether increased customer uptake of solar self-generation will result in a "downward rate spiral"; (4) whether net-metering customers share similar attributes to customers reducing demand from the grid through energy efficiency ("EE") or demand-side management ("DSM") programs; and (5) whether residential and non-residential net-metering customers are distinguishable from a technical perspective. As TASC's opening comments discuss, it is important to enable the Commission to answer as many of these questions as possible to support its choices of inputs and structures for the ultimate framework. This will lead to a technically and legally robust framework for use in future proceedings.

Overall, TASC notes that most parties seem to support an approach to developing the framework that relies on building the factual record, rather than accepting unsupported assertions. The Company stands largely alone in confidently repeating unsubstantiated assertions about the net-metering program (e.g., the value of solar from net-metering systems is no different than large qualifying facilities, net metering has negative impacts on the distribution grid that other customers will pay for, net metering does not create demand-side benefits similar to EE or DSM measures). The non-utility parties appear to all recognize,

albeit to varying degrees, that these assertions are not settled as a matter of fact. Parties, other than the Company, leave open the possibility that their current beliefs regarding these assertions may evolve as more information is brought to light about actual conditions. TASC does not fault the Company for conveying its certitude on these issues, but hopes the Company will join other stakeholders to begin an open and thorough exploration of whether its assertions are factually accurate.

1. The Commission has not made any finding that generation from customer-sited, solar distributed generation has the same value characteristics as wholesale, stand-alone solar generation facilities.

TASC is not aware of the Commission making any determination in a previous proceeding regarding the relative characteristics of customer-sited solar energy systems and those that are engaged in wholesale sales to the Company from larger-scale, solar generation plants. The Company's opening comments, however, claim that there should be no difference between rooftop solar and 100 kW QFs taking the published avoided cost rate. The Company's argument has evolved somewhat regarding the similar claim between utility-scale and rooftop solar made in the last GRC, but the new argument is just as distinguishable. The Company dismisses the possibility of actual distinctions between net-metered systems and wholesale QFs generating from solar resources, observing flippantly that "both generate electricity from the sun."[1] The Company fails to disclose, however, just how many customers take service under the standard rate QF tariff with solar facilities under 100 kW, whether any of those customers use the solar to offset onsite load, and where those systems tend to be located (i.e., proximity to load). In any event, the last GRC revealed that residential customers tend to use systems in the 2-4 kW range, not 100 kW, and there are certain to be

[1] RMP Comments at p. 7.

factual distinctions that need to be explored that have some bearing on the cost and benefits associated with these systems.

TASC suspects that there are discoverable differences between how net metering systems and QFs interact with grid, including the ability of onsite consumption to reduce stress on the transmission and distribution ("T&D") system and the likelihood that wholesale solar QFs have distinct impacts based on the percentage and scale of electricity injected into the grid. The lack of Commission precedent establishing equivalence between rooftop solar engaged in metering and larger, wholesale QFs underscores the need for development of a record in this proceeding to support such a determination.

Moreover, in arguing that the DSM tests are inappropriate to apply to small solar DG, the Company oversimplifies the contribution of DG to the grid at large. While the Company appears to argue that all energy production is of equal value in stating that "utilities could easily build the same type of generation (at perhaps lower cost) than is being provided to the customer,"[2] the evidence that DG can provide other grid support services cannot be overlooked. Accordingly, when the Company suggests that a "direct comparison of DG with the Company's supply of electricity" is both possible and appropriate in the current context, it is not clear if the Company has developed new information since its last rate case or if it is resting solely on its previous assertions. As TASC outlined in its opening comments, the Commission should consider the net-metering program according to its statutory contours, which encourages customers to offset onsite usage and gives credit to those customers for any of the electricity they export. The concept of crediting customers for their **own** excess generation is quite different than a pure supply contract to purchase power.

[2] RMP Comments at p. 56.

The Commission must determine the appropriate legal framework to view net metering, but must also determine the factual predicate of whether there are distinct differences between net-metered solar facilities and solar QFs that supply power to the utility on a wholesale basis.

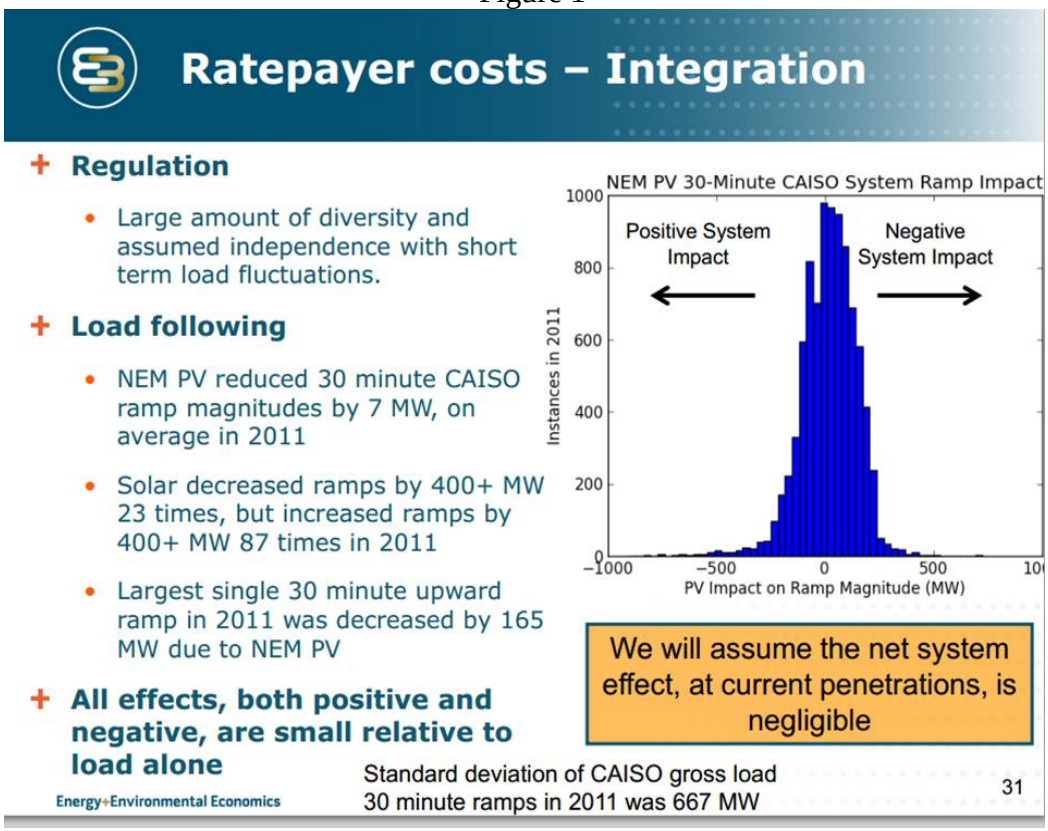
2. The Commission has not made any finding on whether net-metering systems create additional grid impacts that are not covered through the interconnection process.

In its Order in the Company's last GRC, the Commission recognized that there may be certain costs associated with integrating and accommodating increased solar penetration at the distribution system level.[3] However, the Commission did not enter any factual findings about when these conditions would materialize or make any distinction between the types of costs identified at the time of interconnection and those types of costs that may develop over time due to increased solar generation. DPU's comments restate some of the potential concerns (e.g., "system reliability, higher infrastructure and other resources costs, balancing of the system and unintentional islanding"), but do not lay out a process or clear empirical evidence whereby the Commission could gain the information necessary to make findings on these concerns.[4] As the Company's CEO acknowledged in the last GRC hearing, there is no indication that the Company's distribution system is currently inadequate to handle additional solar DG while still providing for reliability.[5] There was no evidence presented in the last GRC on what level of solar penetration might cause those impacts. The Company made no attempt to identify circumstances where solar DG could potentially have positive impacts.

[3] Docket No. 13-035-184, Report and Order ("Order") at pp. 66-67 (August 29, 2014).
[4] DPU Comments at p. 3.
[5] Docket 13-035-184, Hearing Transcript, Volume 1, p. 34, lines 1-13.

The Company has yet to produce a solar integration study and has not otherwise produced any information that would distinguish the integration costs associated with a fleet of small rooftop systems from larger-scale solar plants. TASC would add that the fleet of net-metering systems may demonstrate sufficient load diversity to mitigate any balancing or ramping concerns that may or may not be present with larger solar plants. Looking at data from the California Independent System Operator, the California Public Utilities Commission's consultant assumed at the outset that net metered PV (i.e., distributed solar generation) had a negligible effect on integration costs, as net metered PV was responsible for as many positive system impacts as it was negative. [See Figure 1] TASC suggests that these issues are ripe for a determination and that it is incumbent on parties to provide the Commission sufficient evidence to make a determination on this issue.

Figure 1[6]



As TASC pointed out in opening comments, it is unclear what distribution impacts net-metered solar creates that are not already addressed in the interconnection process. Based on the Company's own acknowledgement during the last GRC hearing, the interconnection process is designed to identify all significant technical and engineering issues that arise from the interconnection of particular generators. Of course, TASC also pointed out that many other jurisdictions have similar interconnection standards and have accommodated much higher levels of solar penetration without identifying specific new impacts that have been

[6] Source: Presentation from Energy+Environmental Economics at a California Public Utilities Commission Stakeholder Workshop on NEM Cost-Effectiveness [slide 31] (October 22, 2012), *available at* www.cpuc.ca.gov/NR/rdonlyres/3C73CEF6-71CA-4B6C-84E4-FDA389D8F2B9/0/NEMApproachStakeholderWorkshop.pdf

missed in the interconnection process. A thorough inquiry is needed to determine if this issue is a red flag or a red herring.

3. The Commission has not made any finding that net metering results in a "downward rate spiral" at any level of penetration.

Similar to speculation about hypothetical impacts of increased solar penetration on the distribution grid, speculation about the impacts of net metering on rate trends should be scrutinized and replaced by a solid factual basis. In its comments, DPU asserts that "[t]here is empirical evidence that this phenomenon can create a downward spiraling effect of revenues for the utility as solar penetration increases."[7] TASC takes issue with DPU's citation to a utility's self-serving press release as providing "empirical evidence," and suggests that a more, detailed, objective and relevant look can be found in recent research conducted by the Lawrence Berkeley National Laboratories ("LBNL").[8] The LBNL report shows that even a 10% solar penetration would have a modest impact on the average rates of all customers (an impact on average rates of an increase between 0.1% and 0.2% at 2.5% solar penetration and an average rate increase of 2.5% and 2.7% at the much more aggressive 10% solar penetration level assumption).[9] This finding hardly portends an out-of-control "downward rate spiral." Moreover, a recent study commissioned by the Mississippi Public Service

[7] DPU Comments at p. 4 (citing press release from Hawaii Electric Companies ("HECO") on proposal to eliminate its net-metering program).

[8] Andrew Satchwell *et al.*, "Financial Impacts of Net-Metered PV on Utilities and Ratepayers: A Scoping Study of Two Prototypical U.S. Utilities" (LBNL), (Sept. 2014) *available at*: http://emp.lbl.gov/publications/financial-impacts-net-metered-pv-utilities-and-ratepayers-scoping-study-two-prototypica

[9] *Id.* (Executive Summary at ix).

Commission found that a healthy net-metering program there would lead to downward pressure on average rates.[10]

More importantly, the Company's testimony in the last GRC showed signs of a forward-thinking approach, noting that the Company will increasingly provide energy-related services, which will accommodate customers who wish to use onsite generation. [11] Indeed, the Company's own CEO agreed that the "utility death spiral" (the less sanitized iteration of DPU's "downward rate spiral") was "hyperbole."[12] The record in that case suggested that EE measures and slow load growth may have more to do with revenue declines than increased solar use on the Company's system.

TASC encourages the Commission to consider whether there is sufficient evidence presented in this proceeding to make findings regarding the true impact of net metering on the utility's financial health and on rate trends. If net-metered solar presents such a significant risk, it should be clearly identified in assessing the Company's risks in a future GRC. That risk should not be injected into the present conversation unless it can be proven with credible data and analysis that it represents a true cost (or benefit as found in the Synapse Mississippi study).

4. The Commission has not made any findings that customer-sited solar DG is dissimilar to EE or DSM in reducing customer demand from the grid.

A major element of onsite consumption of solar generation is the impact it has in lowering a customer's demand from the grid at times of solar generation. At heart, this is a

[10] See *Net Metering in Mississippi, Costs, Benefits and Policy Considerations*, Synapse Energy Economics, p. 42. Available at http://synapse-energy.com/sites/default/files/Net%20Metering%20in%20Mississippi.pdf.
[11] Docket No. 13-035-184, *Direct Testimony of Richard Walje*, p. 9, line 201.
[12] Docket No. 13-035-184, Hearing Transcript, Volume 1, p. 30 at lines 9-11 (Cross-examination of Mr. Walje by TASC's Counsel: "Q: And would you agree that "utility death spiral" is hyperbole? A: I would agree with that.") (July 28, 2014).

factual question and TASC is unaware of any Commission finding that customer-sited solar is not capable of producing benefits of reducing customer demand at peak times similar to EE or other DSM programs. Despite the lack of precedent "nailing the door shut" on this argument, the Company adamantly argues that there is no basis for the Commission to consider any analogy between behind-the-meter consumption of solar and EE or DSM.

The Company errs in its framing of the comparison of net-metered solar to EE and DSM. The Company states that DSM measures are important because they "provide actual reductions in energy usage" whereas solar DG "is simply the substitution of generation by customers for generation by the utility."[13] The Company reasons that it must standby to provide the capacity associated with net-metered solar generation because those customers are not reducing energy usage and may require back up if solar is not producing.

The logic underlying this assumption should be rejected for several reasons. First, the benefit of DSM and EE from a planning perspective **is not** that they reduce the overall kWh sales to the utility. Rather, it is that those reductions (which are likely to produce a flat level of reductions over the entire day) help to reduce, in some part, the peak demand of the system. As OCS notes, the company does not need to reduce overall energy to satisfy its integrated resources planning needs, it needs to reduce its capacity deficit in peak hours.[14] Thus, even if net-metered solar does not reduce customers' overall energy consumption (just the amount they purchase from the utility), there is an open factual question of whether the

[13] RMP Comments at p. 5.
[14] OCS Comments at p. 7 ("Outside the hours with a capacity deficit, the Company has more than enough resources to meet demand. In other words, the Company's system is long on energy, but short on capacity. Therefore, from an IRP perspective, a resource is more valuable if it can be available to meet peak hour demand, can reduce the Company's capacity deficit and can help the Company avoid the need to build or buy resources in the future.").

net-metering program, in the aggregate, helps to reduce net-metering customers' contribution to system peaks. This question could also be asked at the more location-specific level, as solar, unlike EE and DSM, may be pinpointed on the grid[15] and incorporated into distribution planning assumptions, assuming the Company prudently accounts for its attributes in making those plans.[16]

5. The Commission has not made any findings on whether net-metering facilities create different impacts when comparing residential and non-residential rate classes.

TASC generally agrees with OCS that a single framework will be capable of being applied to evaluate residential and non-residential customers. In large part, the differences in "costs" will be related to rate design and the value a customer receives through credits for exports. However, TASC notes that in applying the framework to these different customers, there should be an analysis of whether the load profiles of residential and non-residential customer-generators (and the clustering of these groups on circuits with distinct characteristics) have any impact on the benefit categories. Accordingly, TASC does not call for a separate framework, but notes that a versatile perspective of the types of benefits and

---

[15] Docket 13-035-184, Hearing Transcript, Volume 1, p. 38 at lines 9-11 (Cross-examination of Mr. Walje by TASC Counsel: "**Q:** And you would agree that it's difficult to pin down exactly where and when customer-initiated energy efficiency improvements are occurring?
A: It is. And that's why we do this periodically, to make sure we are attuned to what is actually needed by our customers.
Q: But I think as you noted, you would be able to identify aggregate customer generation on a circuit?
A: That is part of our process, yes.").

[16] Docket 13-035-184, Hearing Transcript, Volume 1, p. 36 at lines 13-22 (Cross-examination of Mr. Walje by TASC Counsel: "**Q:** Okay. And if it turns out that increased solar penetration enables your Company to delay, modify, or cancel specific distribution upgrades, would you agree that the high standard of care you owe to ratepayers would require passing these savings to ratepayers?
A: If we could identify the savings in such a way that we could assure that we continue the high level of reliable service we do today and we could aggregate enough solar generation to achieve that on a specific circuit, we would clearly look at that as an option.").

costs associated with each group needs to be explored. To the extent there are benefits that are more prevalently experienced by one group or the other, the record should be developed to show how these differences can be recognized and quantified.

II. UTAH LAW PROVIDES THE COMMISSION SIGNIFICANT DISCRETION TO CONSIDER A BROAD RANGE OF BENEFITS AND TO APPLY THE FRAMEWORK AS A RATEMAKING TOOL

1. SB 208 did not shift any presumption that charges on net metering customers must be supported by substantial evidence and be just and reasonable.

TASC wholeheartedly disagrees with the Company that SB 208 modified the existing protections under Utah law to remove a presumption against net-metering-specific charges. The Company's position appears to be that if the Commission finds **any** degree of cost shift or subsidy (i.e., the costs exceed the benefits by any amount), it is required to approve a charge to avoid that cost shift and to keep other ratepayers perfectly indifferent. While this may be the goal of the Company, this is not the plain language directive of the Legislature. The Legislature chose to vest the Commission with significant discretion to determine if a charge, credit or rate structure (including the existing tariffs) is just and reasonable. This discretion exists whether there is a net benefit or a net cost. It is inaccurate to describe the result of any analysis coming from the framework as providing automatic marching orders for the Commission. Rather, the framework should provide the Commission, as the expert body the Legislature entrusted with this determination, a valuable tool to satisfy its statutory duty to make findings while enhancing its other duty to ensure that rates charged to customers are just and reasonable.

2. The "just and reasonable"standard provides the Commission broad discretion to consider the full range of potential costs and benefits of the net metering program.

As TASC indicated in our opening comments, there are several legal considerations that inform the appropriate parameters of the net-metering analytical framework. For example, TASC suggests that the "just and reasonable" standard in § 54-15-105.1(2) enables the Commission to consider a broad range of factors, including societal benefits that affect the wellbeing of the state of Utah. Most parties share the view that the Commission has significant discretion to set the parameters of the framework.

TASC does not disagree with parties that the vast majority of categories of benefits and costs should be quantifiable. However, TASC takes exception with arguments that any item that is not readily quantifiable (or already being quantified) today should be excluded. TASC generally agrees with OCS that the question of quantifying the range of societal benefits—and development of a consistent protocol to give values to those benefits—is a complex endeavor and could take significant time to develop. TASC suggests that there are already tools in use by state commissions, such as the National Renewable Energy Laboratory's Jobs and Economic Development Impact ("JEDI") Model,[17] that are capable of reasonably estimating economic impacts of distributed generation programs.

Even where benefits are not readily quantifiable, or where the methods of estimation do not give the Commission sufficient confidence, evidence of such benefits should nonetheless be considered qualitatively. TASC agrees that there must be some rational bounds to how far out geographically and temporally the Commission considers societal benefits. While it goes too far to look at global impacts, it is entirely appropriate to look at impacts from the time solar products enter the stream of commerce **in Utah** for purposes of

[17] For an example of how the JEDI tool might be applied, see the Direct Testimony of Steven Gable on behalf of TASC in Virginia State Corporation Commission Case PUE-2014-00026, filed August 6, 2014, pp. 28-30.

being installed as net-metering facilities. Societal benefits are regularly given such proper and rational bounds and are relied upon to make important public policy decisions at the state and federal level across the United States.

TASC appreciates OCS's recognition of the likely challenges of quantifying or accounting for societal benefits.[18] While societal issues typically are less quantifiable, there are a number of techniques and software programs that provide reasonable estimates for the more significant inputs. In addition to the JEDI Model, the Regional Economic Model (REMI) is another general equilibrium model commonly used to evaluate multi-sector economic impacts of particular policies. [19] OCS correctly asserts that it could take time to research the necessary state-specific variables in order to apply such a model to Utah.[20] However, societal benefits have been calculated many times for different proceedings around the country[21] so the Commission would not have to reinvent the wheel or open a separate investigation to arrive at a set of trustworthy societal benefit values.[22]

III. THE POLICY QUESTION OF WHICH COST-EFFECTIVENESS TEST PERSPECTIVE IS MOST APPROPRIATE SHOULD NOT INTERFERE WITH THE IMMEDIATE TASK OF IDENTIFYING THE UNIQUE CHARACTERISTICS OF NET-METERING SYSTEMS TO ENABLE AN ACCURATE EVALUATION.

[18] OCS Comments at pp. 3-4.
[19] http://www.remi.com/
[20] OCS Comments at p. 3.
[21] *See, e.g.* NREL's *Renewable Electricity Benefits Quantification Methodology: A Request for Technical Assistance from the California Public Utilities Commission*, July 2009. Available at http://www.nrel.gov/docs/fy09osti/45639.pdf.
[22] TASC suggests that it is unnecessary to determine societal values in a separate process outside of this docket. As TASC proposed in its opening comments, the Commission could reserve a phase within this docket to establish placeholder values for societal benefits and provide the opportunity for parties to present additional evidence in any future rate case.

TASC expressed its view in opening comments that no single cost-effectiveness test, on its own, is indicative of the whole picture – on the contrary, the four traditional tests were designed to work together to provide the perspectives of all players. TASC continues to believe that running all four cost-effectiveness tests would be valuable to the Commission. This is especially true, as parties in this proceeding have taken a wide range of opinions regarding which test would be most valuable. Sierra Club and UCE recommended running all the tests but suggested that the Ratepayer Impact Measure ("RIM") test is problematic for several reasons. RMP, on the other hand, noted that only certain components of the RIM and the Utility Cost Test ("UCT") would be applicable. RMP, OCS and DPU also suggested that the cost-effectiveness tests are not perfectly applicable to NEM and that a new economic model is needed. In TASC's opinion, the question of "which lens should we apply to costs and benefits" is subordinate to the larger questions of "what are the benefits specific to NEM" and "how do we accurately measure, quantify or account for those benefits?"

IV. CONCLUSION

TASC appreciates the opportunity to submit this reply, and looks forward to working collaboratively with parties to identify and resolve factual issues that will be required to establish a legally and technically robust analytical framework to evaluate the costs and benefits of the net-metering program.

Respectfully submitted on this 20th day of February, 2015,

___/s/_____
Thadeus B. Culley
Keyes, Fox & Wiedman LLP
401 Harrison Oaks Blvd, Suite 100
Cary, NC 27513
Tele: (510) 314-8205
Email: tculley@kfwlaw.com

___/s/_____
Bruce M. Plenk
Utah Bar No. 02613
2958 N. St. Augustine Place
Tucson, AZ 85712
Tele: (520) 795-8611
Email: bplenk@igc.org

Counsel for The Alliance for Solar Choice

CERTIFICATE OF SERVICE

I hereby certify that I will cause a true and correct copy of the foregoing **REPLY COMMENTS OF THE ALLIANCE FOR SOLAR CHOICE ON DEVELOPMENT OF AN ANALYTICAL FRAME WORK TO EVALUATE THE COSTS AND BENEFITS OF THE NET-METERING PROGRAM** to be filed with the Utah Public Service Commission on February 6, 2015 and to be served via email on that day upon the following persons:

Robert C. Lively (bob.lively@pacificorp.com)
Yvonne R. Hogle (yvonne.hogle@pacificorp.com)
Daniel E. Solander (daniel.solander@pacificorp.com)
Rocky Mountain Power

D. Matthew Moscon (dmmoscon@stoel.com)
Attorney for Rocky Mountain Power
Data Request Response Center (datarequest@pacificorp.com)
PacifiCorp

Jerold G. Oldroyd (oldroydj@ballardspahr.com)
Theresa A. Foxley (foxleyt@ballardspahr.com)
Ballard Spahr LLP

Peter J. Mattheis (pjm@bbrslaw.com)
Eric J. Lacey (elacey@bbrslaw.com)
Brickfield, Burchette, Ritts & Stone, P.C.

Jeremy R. Cook (jrc@pkhlawyers.com)
Parsons Kinghorn Harris, P.C.

William J. Evans (bevans@parsonsbehle.com)
Vicki M. Baldwin (vbaldwin@parsonsbehle.com)
Parsons Behle & Latimer

Gary A. Dodge (gdodge@hjdlaw.com)
Hatch, James & Dodge

Kevin Higgins (khiggins@energystrat.com)
Neal Townsend (ntownsend@energystrat.com)
Energy Strategies

Roger Swenson (roger.swenson@prodigy.net)
E-Quant Consulting LLC

Travis Ritchie (travis.ritchie@sierraclub.org)
Gloria D. Smith (gloria.smith@sierraclub.org)
Sierra Club

David Wooley (dwooley@kfwlaw.com)
Keyes, Fox & Wiedman LLP

Arthur F. Sandack, Esq (asandack@msn.com)
IBEW Local 57

Kurt J. Boehm, Esq. (kboehm@BKLlawfirm.com)
Jody Kyler Cohn, Esq. (Jkylercohn@BKLlawfirm.com)
Boehm, Kurtz & Lowry

Brian W. Burnett, Esq. (brianburnett@cnmlaw.com)
Callister Nebeker & McCullough

Stephen J. Baron (sbaron@jkenn.com)
J. Kennedy & Associates

Sophie Hayes (sophie@utahcleanenergy.org)
Utah Clean Energy

Capt Thomas A. Jernigan (Thomas.Jernigan@us.af.mil)
Mrs. Karen White (Karen.White.13@us.af.mil)
USAF Utility Law Field Support Center

Meshach Y. Rhoades, Esq. (rhoadesm@gtlaw.com)
Greenberg Traurig

Steve W. Chriss (Stephen.Chriss@wal-mart.com)
Wal-Mart Stores, Inc.

Michael D. Rossetti (solar@trymike.com)
Meshach Y. Rhoades, Esq. (rhoadesm@gtlaw.com)
Greenberg Traurig
Christine Brinker (cbrinker@swenergy.org)
Southwest Energy Efficiency Project

Patricia Schmid (pschmid@utah.gov)
Justin Jetter (jjetter@utah.gov)
Rex Olsen (rolsen@utah.gov)
Chris Parker (chrisparker@utah.gov)
William Powell (wpowell@utah.gov)
Dennis Miller (dennismiller@utah.gov)
Division of Public Utilities

Rex Olsen (rolsen@utah.gov)
Michele Beck (mbeck@utah.gov)
Cheryl Murray (cmurray@utah.gov)
Bela Vastag (bvastag@utah.gov)

Office of Consumer Services

Dated February 20, 2015 at Cary, North Carolina.

/s/ Thadeus B. Culley
Thadeus B. Culley
Keyes, Fox & Wiedman LLP
401 Harrison Oaks Blvd, Ste. 100
Cary, NC 27513
tculley@kfwlaw.com
(510) 314-8205