BEFORE THE ARIZONA CORPORATION COMMISSION

Bob Stump, Chairman
Gary Pierce, Commissioner
Brenda Burns, Commissioner
Bob Burns, Commissioner
Susan Bitter Smith, Commissioner

IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
COMPANY FOR APPROVAL OF NET
METERING COST SHIFT SOLUTION.

Docket No. E-01345A-13-0248

THE ALLIANCE FOR SOLAR CHOICE RESPONSE TO THE OCTOBER 17, 2013 LETTER TO THE DOCKET FROM COMMISSIONER GARY PIERCE

The Alliance for Solar Choice ("TASC") strongly objects to the October 17, 2013, letter Commissioner Pierce submitted to this docket. TASC has highlighted on numerous occasions the lack of rate case-quality, cost-of-service information that is necessary to justify any of the various and conflicting rates, charges and classifications that have been proposed in this docket.

The October 17, 2013, letter threatens to muddy the record further in this proceeding by inviting parties to generate new proposals for additional charges without allowing a reasonable opportunity for discovery or for parties to try disputed issues of material fact through evidentiary hearings. Commissioner Pierce asked for Staff’s recommendations in a letter issued to the

1 TASC’s member companies represent the majority of the nation’s rooftop solar market and include SolarCity, Sungevity, Sunrun, Solar Universe, Verengo Solar, REC Solar.
docket on July 16, 2013. Yet the October 17, 2013, letter disregards Staff's primary proposal (and a secondary one as well) without discussion.

In particular, TASC rejects the suggestion in the October 17th letter that a reasonable charge could be determined simply by soliciting party input (while not under oath or subject to cross-examination) on two simple variables used in the flawed methodology employed by Alternative 2 in the Staff Report. The Staff Report clearly states: “a precise determination of DG costs and benefits to APS’s system is beyond the scope of Staff’s analysis for the instant application” and should be “determined in a general rate case when all of APS’s costs can be considered.” TASC strenuously agrees.

The proxy values used by Staff in developing Alternative 2, which give rise to a wide range of proposed charges in Appendix III, have no evidentiary support, and soliciting written input from parties that are not under oath and are not subject to cross-examination will do nothing to bring this proceeding into compliance with the Commission’s constitutional and statutory obligation to ensure that new rates, charges and classifications are just and reasonable.

Below, we identify numerous procedural, methodological and factual flaws that militate against the development of any new charge under the auspices of Staff Alternative 2:

I. **Staff Alternative 2 Includes Energy Used Onsite, Even Though That Energy Never Touches the Grid and Does Not Impact Other Ratepayers.**

According to the Staff Report, the goal of Alternative 2 is to “establish a cap on the net metering incentive to ensure that it is no greater than the price APS would pay to acquire the same amount of solar via a wholesale PPA.” Staff Report p. 13. Accordingly, Staff proposes a charge “based on the difference between APS’s cost for purchasing a DG customer’s excess generation, and its cost to purchase an equivalent amount of energy from a wholesale PPA.” Staff Report p. 13 (italics added). Although Staff unequivocally proposes to compare solar PPA
prices with APS’s cost for purchasing a DG customer’s “excess generation,” the methodology used by Staff incorrectly looks at all onsite generation, not just “excess generation.” This methodological flaw by itself leaves Staff Alternative 2 inadequate for the Commission’s use.

Net metering, which is the focus of this docket, is a bill credit mechanism through which a customer receives credit for power exported to the grid, and thus any look at the costs and benefits of net metering should focus solely on “excess generation,” i.e. net exports. Studies that look at the value of distributed solar more generally, as opposed to net metering policy specifically, often look beyond net exports and examine all generation; however, that is not the focus of this proceeding and a broader reach is not in keeping with Staff’s stated intent to compare “APS’s cost for purchasing a DG customer’s excess generation, and its cost to purchase an equivalent amount of energy from a wholesale PPA.” (Italics added.)

There is no basis in logic or reason to compare APS’s cost from customers using less energy (because they use solar generation onsite) to APS’s cost of wholesale PPA procurement for solar power. Such a comparison would require this Commission to accept the logical fallacy that wholesale power prices are a proxy for APS’s fixed infrastructure cost of providing service. There is simply no connection between the two, and a customer using solar panels to serve onsite electricity needs should be treated no differently than a customer that turns the lights off, installs energy-efficient appliances, or adds a solar hot-water heater to replace an electric water heater.

All of the scenarios listed in the Staff Report, including Appendix III, are flawed due to this failure to focus only on net exported power from net-metered systems. The Testimony of Meissner (p. 4, ll. 12-12) states: “On average for a residential customer, roughly 80% of the solar generation immediately serves their household load and the remaining 20% is excess generation.” Accordingly, the line item identified as “Assumed Annual Rate of Production” in
the Staff Report, including Appendix III, should be reduced by 80% to exclude energy that is used onsite and not exported. However, the correction of this significant methodological flaw still does not render this approach acceptable for Commission ratemaking for the additional reasons stated below.

II. Alternative 2 Incorrectly Assumes 1-5 Solar PV Generators Interconnected to Sub-transmission Provide the Same Benefits as Residential Rooftop PV.

Staff Alternative 2 proposes a “cap on the net metering incentive to ensure that it is no greater than the price APS would pay to acquire the same amount of solar via a wholesale PPA.” Staff specifically proposes to base this comparison on 1 to 5 MW PV systems interconnected to the APS sub-transmission system. Staff Report p. 13. However, there is no evidentiary support for the proposition that a 1 to 5 MW PV system interconnected to the APS sub-transmission system offers the same costs or benefits as a large number of small, residential PV systems that are dispersed across the APS system and serve nearby customer load.

In fact, the two categories of generators that Alternative 2 proposes to compare are fundamentally different in terms of the costs and benefits provided to APS and its ratepayers. The Staff Report notes that “the distribution of DG systems appears relatively even across the urbanized areas within APS’s service territory.” Staff Report p. 5. An even distribution of thousands of small systems located across the APS service territory are likely to provide lower integration costs and higher capacity values than a small number of larger systems, which may need to be located farther from customer load and may entail greater grid integration costs. These important differences must be taken into account in comparing the two categories of generators.

In addition, there are significant differences in the line losses associated with the two categories of generators that Alternative 2 proposes to compare, which has a significant impact on the overall value of the power that is provided. The Testimony of Bernosky (p. 9, ll. 22-24)
acknowledges the cost savings to APS and its customers from rooftop solar related to avoided transmission and distribution losses, which Bernosky describes as “the ‘extra’ energy that would have been needed from a centralized facility to replace the energy lost during delivery from the plant to the customer.” Likewise, APS’s SAIC Report (p. 2-9) states: “Electricity generated at the site of application, such as a distributed solar PV system, reduces the load required to be served by a centralized power generating facility and thus reduces the electricity line losses that occur during delivery of electricity to load.”

SAIC uses a seven percent average energy loss and an 11.7 percent system peak demand loss. Crossborder Energy, by comparison, has determined that “APS will avoid marginal line losses of 12.1% based on the detailed analysis of the loss impacts of solar DG that is in the Beck Study.” Thus, before any version of Staff Alternative 2 could be used as a basis for imposing a new charge on solar customers, the difference in line losses between the two categories of generators that Alternative 2 proposes to compare, and the associated financial benefit to APS, must be determined through hearings and factored into the methodology.

Finally, there are likely significant differences in the transmission savings provided by the two categories of generators that Alternative 2 proposes to compare. The Testimony of Meissner (p. 13, ll. 14-18) states: “because rooftop solar is available intermittently during the day and located at the customer’s home, it could theoretically have a small impact on the cost of transmission service by delaying the investment in future infrastructure.” The APS SAIC Report (p 1-3) offers a paltry assessment of the potential savings – just 0.32 cents per kWh. Crossborder Energy, in contrast, determines the potential savings to be 2.1 to 2.3 cents per kWh. This disputed issue of fact must also be resolved through evidentiary hearings.

If Alternative 2 is to be used as a framework for developing a new charge on net-metered
customers, the Commission must also determine if there is a difference in the transmission
savings provided by rooftop PV systems versus 1 to 5 MW solar PV systems interconnected to
the sub-transmission system. The only sworn testimony in the record – that which was entered by
APS – suggests transmission savings are a function of the proximity between generation and
load. That difference must be evaluated and quantified before Alternative 2 could provide a
methodological framework for imposing a new charge on customers.

III. Evidentiary Hearings are Necessary to Try Disputed Issues of Fact.

Setting aside the numerous methodological flaws with Alternative 2, significant
disagreement exists regarding the two simplistic variables that Alternative 2 takes into account.
This further highlights the need for evidentiary hearings once an appropriate methodology for
assessing the costs and benefits of net-metered systems is determined. For example, the October
17, 2013 letter asks: “What is the most realistic Assumed Retail Rate?” The Testimony of
Meissner (p. 10, ll 17-18) says the average pretax, fully bundled rate for residential customers is
12.6 cents for average customer. However, Meissner’s testimony (p. 14, ll. 18-20) muddies this
issue by further surmising that the amount may be as high as 13.5 cents before taxes for the
average solar customer. TASC disputes whether the figures offered by Meissner are correct.
Moreover, these numbers should be subject to discovery and cross-examination through
evidentiary hearings before being accepted by parties or the Commission.

The October 17, 2013 letter also asks: “What is the most realistic Assumed Utility Scale
PPA Rate?” Appendix III provides a range of scenarios that assume values between 7 cents and
10 cents per kWh. However, there is absolutely no evidentiary basis for these numbers. The Staff
Report simply states Staff “understands that utility scale solar PV generation can be obtained in
Arizona for between 7 and 10 cents per kWh under a PPA arrangement.” Staff Report at p. 14.
However, there is no evidentiary support or exhibit to prove Staff’s “understanding.” Moreover, Staff does not say whether its “understanding” of solar PPA prices even relates to the 1 to 5 MW solar PV facilities interconnected to the APS sub-transmission system that are supposed to provide the basis against which the costs of residential net metered exports are to be compared.

It is highly suspect that the all-in cost of output from 1 to 5 MW solar PV facilities interconnected to the APS sub-transmission system would be below 10 cents per kWh. This is particularly unlikely for projects on the lower end of the size range, which would be more comparable in terms of value to residential rooftop solar systems. However, no hearing has been held to resolve disputed issues of fact regarding this issue. Parties should be provided reasonable time for discovery and to develop testimony on this issue, particularly given uncertainties as to whether there are even PV projects of this size interconnected to the APS sub-transmission system that are under a PPA with APS. Data may need to be extrapolated from other jurisdictions, and such extrapolation should be tested through sworn statements from individuals that are subject to cross-examination.

It is particularly important to determine through evidentiary hearings whether the 7 to 10 cent per kWh range of PPA costs assumed by Staff is reasonable. On September 27, 2013, TASC submitted a public comment letter in this docket to point out an unreasonable and misleading claim by APS in its August 1, 2013, data response in this docket. In that data response, APS relied on PPAs signed by Riverside Public Utilities in California to support APS’s suspect claim that it can develop utility-scale projects and interconnect them to the distribution system for all-in costs between 7 to 9 cents/kWh. In its September 27 letter, TASC pointed out that the Riverside projects exclude normal development costs, are connected to the transmission system (not the distribution system), and are part of an established 100 MW project already in the advanced
stages of development. See September 27, 2013, TASC Public Comment Letter.

Staff acknowledges that it did not attempt precisely to determine the costs and benefits of residential solar in offering Alternative 2. The Staff Report clearly acknowledges that Staff “developed a range of proxy values for DG as a basis for its alternative recommendations.” Staff Report at p. 6. These proxy values offer an inadequate basis for the Commission to discharge its constitutional and statutory duty to ensure that rates and classifications are just and reasonable.

Given the lack of procedural safeguards employed in this proceeding and the significant disagreement that exists regarding the underlying assumptions behind Staff Alternative 2, TASC vehemently objects to the use of this flawed methodology to adopt a new charge on customers in this proceeding. Soliciting written input from parties that are not under oath and are not subject to cross-examination will do nothing to bring this proceeding into compliance with the Commission’s constitutional and statutory obligation to ensure that new rates, charges and classifications are just and reasonable.

III. Evidentiary Hearings Regarding the Setting of Rates, Charges and Classifications Should Take Place Within a Rate Case.

The Staff Report recommends “that the Commission take no action on the instant application and defer the matter for consideration during APS’s next rate case.” Staff notes that “any cost-shift issue created by net metering is fundamentally a matter of rate design,” and “[t]he appropriate time for designing rates that equitably allocate the costs and benefits of net metering is during APS’s next general rate case.” Moreover, “the objective value aspects of DG to the APS system can best be determined in the context of a general rate case when all of APS’s costs can be considered.” See Staff Report at p. 6.

TASC strongly agrees that a general rate case is the right forum for addressing rate classifications and charges for an important and growing segment of APS customers. A rate case
requires APS to submit a range of information on its fair value of assets used to provide service
and the cost of serving customers with different service characteristics. Moreover, ratemaking
issues are litigated in Commission hearings, where the Commission has the power of a court to
compel the attendance of witnesses and the production of evidence. ARIZ. CONST. art. XV, § 4.
The production of hard evidence is an essential prerequisite to determining whether proposed
rates, charges and classifications are just and reasonable.

A rate case will also allow the Commission and stakeholders to consider a broad range of
alternatives, such as a system-benefit credit, minimum bills, or other rate design options that can
only be implemented in a rate case. The Staff Report concurs: “the Commission has more options
available within a rate case than it has outside a rate case.” Staff Report at p. 10. The
Commission is constitutionally and statutorily required to set rates on the basis of hard evidence.
It would be a supreme injustice, and a violation of Arizona law, to render a decision on the basis
of the deficient record in this proceeding.

V. A Methodology Should Be Established Outside This Process, As Proposed by Staff.

The only conclusion supported by the record in this proceeding is that parties
fundamentally disagree on the methodology that should be used to measure the costs and benefits
of distributed solar. This disagreement is noted in the testimony submitted with the APS
Application; it is highlighted in the Rocky Mountain Institute study referenced in the Staff
Report; and it is further highlighted by Staff in recommending that the Commission should
resolve this issue in APS’s next general rate case.

If the Commission feels that immediate action is needed, TASC encourages the
Commission to accept the well-reasoned recommendation of Utilities Division Staff to develop a
common set of assumptions regarding the costs and benefits of net metering, which APS can then
use to propose an appropriate charge or credit in its next general rate case.

No final decision that rests on reason or evidentiary support can be found in this proceeding where so little weight has been accorded to procedural due process and the resolution of disputed issues of material fact. These issues can only be reasonably resolved in the next APS general rate case.

RESPECTFULLY SUBMITTED this 1st day of November, 2013.

By

Hugh L. Hallman
Hallman & Affiliates, P.C.
2011 North Campo Alegre Road
Suite 100
Tempe, AZ 85281
480-424-3900
Bar No. 12164

Attorney for The Alliance for Solar Choice
CERTIFICATE OF SERVICE

I hereby certify I have this day sent via hand delivery an original and thirteen copies of the foregoing RESPONSE TO THE OCTOBER 17, 2013 LETTER TO THE DOCKET FROM COMMISSIONER GARY PIERCE on this 1st day of November, 2013 with:

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

I hereby certify that I have this day served the foregoing documents via regular mail on all parties of record and all persons listed on the official service list for Docket No. E-01345A-13-0248 on the Arizona Corporation Commission’s website:

<table>
<thead>
<tr>
<th>Arizona Corporation Commission</th>
<th>Janice Alward</th>
<th>1200 W. Washington St. Phoenix, Arizona 85007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinnacle West Capital Corporation</td>
<td>Thomas Loquvam</td>
<td>400 N. 5th St, MS 8695 Phoenix, Arizona 85004</td>
</tr>
<tr>
<td></td>
<td>Lewis Levenson</td>
<td>1308 E. Cedar Lane Payson, Arizona 85541</td>
</tr>
<tr>
<td></td>
<td>Patty Ihle</td>
<td>304 E. Cedar Mill Rd. Star Valley, Arizona 85541</td>
</tr>
<tr>
<td>TEP, Co. and UNS Electric, Inc.</td>
<td>Michael Patten Jason Gellman</td>
<td>Roshka, DeWulf &amp; Patten, PLC 400 E. Van Buren St., Ste. 800 Phoenix, Arizona 85004</td>
</tr>
<tr>
<td>Arizona Competitive Power Alliance; Water Utility Association of Arizona</td>
<td>Greg Patterson</td>
<td>Munger Chadwick 916 W. Adams St. Ste. 3 Phoenix, Arizona 85007</td>
</tr>
<tr>
<td>RUCCO</td>
<td>Daniel Pozefsky</td>
<td>1110 West Washington Street Suite 220 Phoenix, Arizona 85007</td>
</tr>
<tr>
<td>TEP Co.</td>
<td>Bradley Carroll Kimberly A. Ruht</td>
<td>88 E. Broadway Blvd. MS HQE910 P.O. Box 711 Tucson, Arizona 85702</td>
</tr>
<tr>
<td>Arizona Solar Deployment Alliance</td>
<td>Garry Hays</td>
<td>1702 E. Highland Ave., Suite 204 Phoenix, Arizona 85016</td>
</tr>
<tr>
<td>Organization</td>
<td>Contact Person</td>
<td>Address</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Grand Canyon State Electric</td>
<td>John Wallace</td>
<td>2210 South Priest Dr. Tempe, Arizona 85282</td>
</tr>
<tr>
<td>Cooperative Assoc., Inc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tim Lindl</td>
<td></td>
<td>Keyes, Fox &amp; Wiedman LLP 436 14th St., Suite 1305, Oakland, CA 94612</td>
</tr>
<tr>
<td>The Alliance for Solar Choice</td>
<td>Kevin T. Fox</td>
<td>Keyes, Fox &amp; Wiedman LLP 436 14th St., Suite 1305, Oakland, CA 94612</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erica M. Schroeder</td>
<td></td>
<td>Keyes, Fox &amp; Wiedman LLP 436 14th St., Suite 1305, Oakland, CA 94612</td>
</tr>
<tr>
<td>Western Resources Advocates; Vote for Solar Initiative</td>
<td>Timothy M. Hogan</td>
<td>202 E. McDowell Rd., Suite 153, Phoenix, AZ 85004</td>
</tr>
<tr>
<td>Western Resource Advocates</td>
<td>David Berry</td>
<td>P.O. Box 1064 Scottsdale, AZ 85252-1064</td>
</tr>
<tr>
<td>Arizona Solar Energy Industries Association</td>
<td>Mark Holohan</td>
<td>2221 W. Lone Cactus Dr., Suite 2, Phoenix, Arizona 85007</td>
</tr>
<tr>
<td>Sun City West Property Owners and Residents Assoc.</td>
<td>W.R. Hansen</td>
<td>13815 W. Camino del Sol, Sun City West, Arizona 85375</td>
</tr>
</tbody>
</table>

Dated this 1st day of November, 2013.

By [Signature]

Hugh L. Hallman
Hallman & Affiliates, P.C.
2011 North Campo Alegre Road
Suite 100
Tempe, AZ 85281
480-424-3900
Bar No. 12164

Attorney for The Alliance for Solar Choice