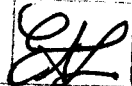




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14 Attorneys for: INTERSTATE RENEWABLE ENERGY COUNCIL, INC.

15 **BEFORE THE ARIZONA CORPORATION COMMISSION**

16 Bob Stump, Chairman  
 17 Gary Pierce, Commissioner  
 18 Brenda Burns, Commissioner  
 19 Bob Burns, Commissioner  
 20 Susan Bitter Smith, Commissioner

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

Docket No. E-01345A-13-0248

25 **COMMENTS OF THE INTERSTATE RENEWABLE ENERGY COUNCIL, INC. ON**  
 26 **STAFF'S RECOMMENDED OPTION, STAFF'S PROPOSED ALTERNATIVES AND**  
**COMMISSIONER PIERCE'S QUESTIONS ON STAFF'S ALTERNATIVE #2**

The Interstate Renewable Energy Council, Inc. (IREC) appreciates the opportunity to submit these comments in response to Staff's Recommended Opinion and Order, and the questions raised by Commissioner Pierce on Staff's Alternative #2 in his letter to this docket dated October 17, 2013. These comments supplement our October 10 filing to the docket regarding Staff's Proposed Order. We submit them concurrently with a letter to the docket

1 critiquing the recent study of net metering (NM) benefits and costs for California's three largest  
2 investor-owned utilities by the consulting firm of Energy + Environmental Economics, submitted  
3 into this docket on September 30. IREC hopes that these additional comments will facilitate a  
4 thorough and equal consideration of *all three* options from Staff under Commission  
consideration. These are:

- 5 1. **Recommended Option:** no action. IREC agrees with Staff that the Arizona  
6 Corporation Commission (Commission) should reject Arizona Public Service  
7 Company's (APS) proposals to modify NM, make no changes to NM at this time, and  
8 evaluate valuation issues and potential modifications to NM in APS's next general  
9 rate case.
- 10 2. **Alternative #1:** a Lost Fixed Cost Recovery (LFCR) flat charge for all new  
11 distributed generation (DG) customers. If the Commission wishes to act in the  
interim, IREC recommends choosing Staff's Alternative #1.
- 12 3. **Alternative #2:** an LFCR DG Premium for all new DG customers. As IREC explains  
13 below and in our October 10 comments, Alternative #2 is not an appropriate interim  
14 solution, although it may warrant further consideration in workshops.

15 In addition, IREC emphasizes the urgent need for an unbiased study of the benefits and costs of  
16 NM, based on a transparent, agreed-upon methodology, which could inform any changes to NM.

17 **I. Response to Commissioner Pierce's First Question on Staff's Alternative #2: "Of the  
18 scenarios shown in Staff's Appendix III, which is the most realistic scenario?"**

19 IREC contends that all of Staff's Appendix III scenarios are fundamentally flawed  
20 because they rely on an inappropriate comparison between the cost of NM and the cost of utility-  
21 scale solar projects. Comparing the two is not an apples-to-apples comparison. Consequently,  
22 each scenario presents an unfair competitive advantage for generation procured by the utility  
through a Power Purchase Agreement (PPA) over net-metered DG, and none is "the most  
realistic."

23 Specifically, IREC believes:

- 24 1. *The correct comparison should focus on the benefits and costs attributable to the  
25 specific resource, either the NM resource or the PPA resource. According to  
26 economic theory, rational individuals will consume products that provide a marginal  
benefit that exceeds the marginal cost. A PPA price may provide one possible*

1 estimate for the marginal cost of solar energy. The retail rate for net metering  
2 customers may provide another possible estimate. However, neither of these costs  
3 says anything about the marginal benefit (i.e., "value") that either investment  
4 provides to the consumer or to the public at large. In fact, the two products may not  
5 be mutually exclusive as suggested by a direct comparison of their costs. Both may be  
6 "worth doing" if the benefits to consumers exceed the costs. Thus, investments in  
7 solar, whether via NM or a PPA, should be deemed prudent based on whether  
8 benefits exceed costs, not solely based on which has a lower cost. Direct comparison  
9 of NM and PPA costs conflates two different types of resources which have  
fundamentally different attributes.

- 10 2. *Public policy benefits deemed appropriate by the Commission should be included in*  
11 *the evaluation.* DG is a unique resource that affords both tangible and intangible  
12 benefits to utility customers that utility-procured solar cannot provide. In part, this is  
13 because DG provides customers with more options and greater freedom when it  
14 comes to energy choices. Additionally, DG can provide capacity in more incremental  
15 amounts with lower financial risks to ratepayers than projects with large capital  
16 outlays. As IREC has emphasized repeatedly in this docket, a comprehensive and  
17 transparent benefit-cost analysis, which includes all of the benefits and costs of DG,  
is essential to informing changes to DG and NM policy at APS and at Arizona's other  
utilities.

18 Because the Appendix III Scenarios are fundamentally flawed, and for the other reasons  
19 outlined in our October 10 comments on Staff's Proposed Order, IREC does not support Staff's  
20 Alternative #2 and recommends that the Commission reject it. IREC instead urges the  
21 Commission to approve Staff's Recommended Option to take no action until APS's next general  
rate case, or in the alternative, Staff's Alternative #1.

22 **II. Response to Commissioner Pierce's Second Question on Staff's Alternative #2: "We**  
23 **have Staff's conservative scenario on one end of the scale; I would like to have more**  
24 **information in order to be able to determine the most realistic scenario on the other**  
25 **end of the scale. What is the most realistic Assumed Utility Scale PPA Rate?"**

26 IREC agrees with Staff's conclusion that \$0.10 per kilowatt-hour (kWh) is a reasonable  
estimate for a solar PPA price, though that is not directly comparable to the value provided by

1 NM systems. We believe this solar PPA price estimate is not overly conservative and that a  
2 lower estimate is neither necessary nor justified.

3 In a Response to a Data Request filed on September 23, 2013,<sup>1</sup> APS provided  
4 documentation of a recent solar PPA executed in California. This PPA was priced at  
5 approximately \$0.07 per kWh for a 35-megawatt (MW) project within a larger 100-MW project  
6 portfolio connected at the transmission level. If this PPA price is used as the basis for comparing  
7 the value provided by a 1- to 5-MW project interconnected at the sub-transmission level, it  
8 should be adjusted upwards to reflect the following:

- 9 1. Incremental transmission costs not included in the PPA price;
- 10 2. Incremental energy losses experienced by the larger project but not experienced by  
11 the smaller one;<sup>2</sup> and
- 12 3. Incremental development costs associated with the smaller project.

13 Accounting for these three factors would bring the comparable value of solar closer to \$0.10 per  
14 kWh, which matches with the value used by Staff in its analysis. IREC notes, however, that Staff  
15 has not proposed how to refresh this Assumed Utility Scale PPA Rate, either how frequently or  
16 through what mechanism, to capture ever changing solar prices. IREC believes it would be  
17 essential to identify and clearly describe this process if the Commission were to pursue  
18 Alternative #2. Regardless, IREC again emphasizes that it is not appropriate to compare this PPA  
19 price and the value of net-metered DG.

20 **III. Response to Commissioner Pierce's Third Question on Staff's Alternative #2:**  
21 **"What is the most realistic Assumed Retail Rate?"**

22 There is no one retail rate that is the "most realistic" since no retail rate is representative  
23 of all solar customers. In fact, the average retail rates paid by solar customers vary widely  
24 depending on their rate plans and usage patterns. For instance, the APS rate plan with the most  
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26 <sup>1</sup> Commissioner Pierce's October 17, 2013 letter in ACC Docket No. E-01345A-13-0248, *available at*:  
<http://images.edocket.azcc.gov/docketpdf/0000149003.pdf>

<sup>2</sup> For instance, if the transmission investment required to support a 100-MW solar PPA is similar to the \$206 per kilowatt (kW) investment, which APS recently stated as required to support a 100-MW combustion turbine, this could increase the levelized cost of the project by approximately \$0.02 per kWh. ACC Docket No. E-01345A-10-0394, APS/SAIC 2013 Updated Solar Value Report at Table 2-7 (filed May 17, 2013), *available at* <http://images.edocket.azcc.gov/docketpdf/0000144991.pdf>.

1 residential solar customers is the ET-2 rate.<sup>3</sup> Based upon the revenue requirement and  
2 consumption information from the 2010 test year used in APS's last rate case, the average retail  
3 rate required to serve ET-2 customers and presumably collected by APS is close to \$0.115 per  
4 kWh.<sup>4</sup> Thus, while some solar customers may experience average rates higher than \$0.125 per  
5 kWh, others may in fact be lower. Staff's assumption of \$0.125 per kWh is not necessarily a  
6 conservative estimate for the average rate paid by solar DG customers. Anything short of a full  
7 rate case evaluation will produce an imprecise approximation that will undoubtedly pick winners  
8 and losers among solar customers.

8 Additionally, solar customers receive credits from NM at the full retail rate, which  
9 generally reflects the average cost to provide service. Even APS's time-of-use rates, which offer  
10 a slightly more precise estimate of the cost of service, reflect some averaging of costs.  
11 Meanwhile, solar DG provides energy that is peak-coincident, that is, available during the times  
12 of the day when the true cost of service may be much higher than the retail rate. Thus to provide  
13 a fair comparison, the comparable retail rate should be reduced by any credit DG customers are  
14 owed from producing power that is peak-coincident.

14 The need for parties to fully investigate and understand these rate-related issues is one  
15 reason why IREC supports Staff's Recommendation to defer this proceeding until APS's next  
16 rate case.

#### 16 **IV. Response to Commissioner Pierce's Comments on Staff's Alternative #1**

17 In his letter, Commissioner Pierce comments that the Flat Charge LFCR (Staff  
18 Alternative #1) would "be offset by an imperceptible decrease to the LFCR" and is "little better  
19 than waiting until the next rate case." While IREC recognizes Commissioner Pierce's point, we  
20 believe that Alternative #1 represents a better compromise than Alternative #2, if a temporary  
21 solution is required. It works towards addressing the alleged cost shift issue, which, if present at

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23 <sup>3</sup> APS 2013 RES Implementation Plan, ACC Docket Nos. E-01345A-12-0290, E-01345A-10-0394, E-01933A-  
24 12-0296, E-04204A-12-0297, APS Response to The Vote Solar Initiative (Vote Solar) Data Request 4.13,  
25 *available at* [www.solarfuturearizona.com/APSResponseToVoteSolar4\\_Consolidated\\_2013RESImpPlan-12-0290\\_052213.pdf](http://www.solarfuturearizona.com/APSResponseToVoteSolar4_Consolidated_2013RESImpPlan-12-0290_052213.pdf).

25 <sup>4</sup> APS 2013 RES Implementation Plan, ACC Docket Nos. E-01345A-12-0290, E-01345A-10-0394, E-01933A-  
26 12-0296, E-04204A-12-0297, APS Responses to Vote Solar Data Requests 1.30 and 3.17, *available at*  
[www.solarfuturearizona.com/APSResponseConsolidated.pdf](http://www.solarfuturearizona.com/APSResponseConsolidated.pdf) and  
[www.solarfuturearizona.com/APSResponseToVoteSolar3\\_CONSOLIDATED\\_2013RESImpPlan-12-0290.pdf](http://www.solarfuturearizona.com/APSResponseToVoteSolar3_CONSOLIDATED_2013RESImpPlan-12-0290.pdf).

1 all, is *de minimis* at this point, but does not place an unreasonable burden on solar customers and  
2 the solar industry.

3 From reviewing the relevant public records, however, it appears that Alternative #1  
4 reflects a novel application of the LFCR opt-out provision that was not contemplated either in  
5 APS's rate application or in the final settlement agreement.<sup>5</sup> The LFCR mechanism to which  
6 parties agreed in the 2011 APS rate case settlement agreement contemplates lost fixed costs from  
7 DG, which is the very subject of the present debate over NM. IREC was not party to the  
8 settlement agreement of APS's last rate case that produced the LFCR mechanism. Issues  
9 associated with unrecovered fixed costs associated with NM were raised as far back as APS's  
10 2005 rate case.<sup>6</sup> Parties to the 2011 settlement would likely have been aware of these issues and  
11 had the opportunity to address them through the development of the LFCR mechanism. The  
12 absence of such provisions in the final agreement suggests that the alleged NM cost shift was  
13 neither urgent nor important enough to the settling parties that it could not wait until a future rate  
14 case. As described in the 2011 settlement, the LFCR was broadly intended to address lost fixed  
15 costs from energy efficiency and distributed generation, but not necessarily intended to address  
16 costs shifts between customers. Moreover, the LFCR was only intended to address a portion of  
17 APS's fixed costs (e.g., it does not include generation costs). To address fixed costs beyond that,  
18 and to apply the LFCR mechanism to remedy alleged costs shifts, appears to greatly expand the  
19 scope of the LFCR's intended implementation.

20 Nevertheless, since Alternative #1 relies upon an existing provision of the LFCR, albeit  
21 for a different purpose, it may be a workable solution if the Commission feels compelled to  
22 adopt a temporary solution. In contrast to Alternative #2, Alternative #1 appears to be a  
23 reasonable compromise. It attempts to address the alleged cost shift issue without unreasonably  
24 burdening solar customers and the solar industry.

## 25 **V. Comments Regarding Staff's Recommended Option**

26 IREC agrees with Staff that the NM issue cannot be satisfactorily decided outside of the  
next general rate case, as we emphasized in our October 10 comments on Staff's Proposed

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<sup>5</sup> ACC Docket No. E-01345A-11-0224, Decision No. 73183, Exhibit A: APS Proposed Settlement Agreement, Section IX (January 6, 2012), *available at* <http://images.edocket.azcc.gov/docketpdf/0000137042.pdf>.

<sup>6</sup> ACC Docket No. E-01345A-05-0816, Decision No. 69663, Section X-D Net Metering (June 28, 2007), *available at* <http://images.edocket.azcc.gov/docketpdf/0000074350.pdf>.

1 Order. A rate case is the correct venue to consider the full suite of rate-related issues inherent to  
2 NM for at least three reasons.

3 1. *It is the proper forum in which to address the allocation of costs among customer*  
4 *types.* Solar DG customers and non-solar customers both represent a wide range of  
5 APS rates and customer classes. Since NM and any alleged cost shifts it imposes will  
6 affect each type of customer in a different way, any attempt to fairly correct a cost  
7 shift through a single interim solution will inevitably fall short. More information is  
8 required about the specific cost for APS to serve different types of solar customers,  
9 especially in light of their reduced albeit not eliminated reliance on the grid  
10 infrastructure that APS provides. More information is also required about how the  
11 alleged cost shift is distributed among non-solar customers.

12 2. *The benefits that DG provides to other customers are disputed and are central to*  
13 *assessing the magnitude of the alleged cost shift.* As the APS-led technical conference  
14 demonstrated, the benefits and costs attributable to DG are a matter of dispute.  
15 Understanding their effect on non-participants requires a more complete picture of  
16 APS's full cost of service with differing levels of DG deployment supported by NM.  
17 This complete picture will only be available once APS files for its next rate case, at  
18 which time parties will have various essential pieces of information, including:

- 19 • Updated information from APS regarding the cost of service for the customer  
20 classes representative of DG solar installations; and
- 21 • Updated integrated resource plan (IRP) results with information on revenue  
22 requirements under different DG scenarios.

23 During the APS-led IRP workshops earlier this year, APS solicited feedback from  
24 stakeholders on possible inputs to its IRP modeling. IREC requested that APS conduct  
25 analysis on a high-DG scenario to provide stakeholders with better information on the  
26 reduction in APS's revenue requirement afforded by DG (e.g., from deferred utility-  
owned generation). This analysis is directly relevant to the question of whether the  
alleged cost shift exists and what its magnitude might be. While APS did not commit to  
performing this analysis, we think it would be informative in understanding the correct

1 value of NM in the next rate case. We urge the Commission to direct APS to include a  
2 high-DG scenario in its IRP analysis.

3 3. *The bulk of any alleged cost shift will not be manifested until the next rate case.* As  
4 described above, the bulk of any cost shift through adjustor mechanisms will be small  
5 by necessity. This means that any substantial costs shifts will not materialize until  
6 base rates are readjusted in the next rate case.

6 **VI. Comments Regarding the Need for a Standardized Methodology to Inform an**  
7 **Unbiased Study of the Benefits and Costs of Net Metering**

8 As IREC emphasized in our Protest in this docket as well as our October 10 comments on  
9 Staff's Proposed Order, it is critical that the Commission and stakeholders develop a  
10 standardized methodology—with a transparent set of assumptions and inputs—to inform an  
11 unbiased evaluation of net metering. Consistent with Staff's suggestion, IREC believes that the  
12 process for developing such a methodology could begin in Commission-led workshops leading  
13 up to APS's next general rate case. This standardized methodology could be used to conduct a  
14 benefit-cost study of NM to inform policy changes at that time.

14 Currently, Staff has two conflicting studies in the docket, along with additional analysis  
15 from other parties, all based on different and sometimes unclear assumptions and inputs. These  
16 do not provide a solid foundation on which to rest any changes to Arizona's NM policy or its  
17 implementation at APS. Any such changes require an unbiased and transparent benefit-cost study  
18 of NM. IREC strongly urges the Commission not pursue any changes to NM until such a study  
19 has been conducted. As discussed previously, IREC has retained Clean Power Research for that  
20 purpose and stands ready to work with Staff, the Commission and stakeholders in a workshop  
21 process to develop assumptions for a model run that is not directed by APS or the solar industry.

21 Respectfully submitted this 6<sup>th</sup> of November, 2013.

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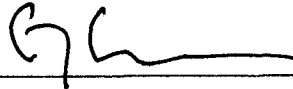
1 **CERTIFICATE OF SERVICE**

2 I hereby certify I have this day served an original and thirteen copies of the foregoing on this 6th  
3 day of November, 2013, with:

4 Docket Control  
5 Arizona Corporation Commission  
6 1200 West Washington Street  
7 Phoenix, Arizona 85007

8 I hereby certify that I have this day served the foregoing documents by mail on all parties of  
9 record in this proceeding.

10 Dated this 6th day of November, 2013, in Phoenix, Arizona.

11 

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