



February 14, 2014

**ORIGINAL** 

DOCKET No. E-00000J-14-0023

**Chairman Bob Stump** 

Hon. Gary Pierce

Hon. Brenda Burns

Hon. Susan Bitter-Smith

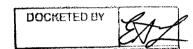
Hon. Bob Burns

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Arizona Corporation Commission

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FEB 1 4 2014



AZ CORP COMMISSION

Re:

Value and Cost of Distributed Generation

Comments for Consideration on the issue of rooftop solar

Dear Chairman Stump and Commissioners,

I write to provide our comments on the value and cost of distributed generation, specifically rooftop solar. SouthWestern Power Group has been involved in Arizona's wholesale electricity market for about 15 years and is currently developing the Bowie Power Station and the SunZia Southwest Transmission Project. We have been an active participant in the APS and RUCO workshops held last year on net metering and I provided public comment at the Commission's open meeting on 11/13/13.

As Commissioners, it seems you have become the focus of a debate that now extends far beyond the narrow issue of rate design. There appears to be a lot at stake, for both APS and those companies whose business is tied to the future of the rooftop solar industry. In my opinion, this debate has created more heat than light.

The nub of this debate and the key issue is rate design. It is a simple, inarguable fact that today, rooftop solar and net metering result in APS not fully recovering its fixed costs of providing electrical service. This is a consequence of how APS has structured its rates by allocating fixed costs to a variable cost recovery mechanism. I would add these rates have been reviewed and approved by the ACC. APS rates need to change to reflect the reality of rooftop solar, which is of course part of the REST rules and the policy of this Commission. The fixed charge addition of \$0.70 per kW approved by the Commission on 11/14/13 is a step in the right direction.



As policy makers, it's important that you understand the economics of solar energy today. The City of Palo Alto signed two power purchase agreements last year with utility-scale solar PV projects located in California. The cost of utility scale solar energy in these PPA's is just below 7 cents per kWh. Given that it costs more to develop and build generation projects in California than Arizona, I'm quite sure that APS' cost to procure new, utility-scale solar energy today is below this. With net metering, the cost of rooftop solar to APS is around 13 ½ cents per kWh because this is what the rooftop solar customer is avoiding paying to APS by generating their own electrical energy.

As regulators, you should be concerned about this 6 ½ cents per kWh difference. Because the fixed charge of \$0.70 per kW is insufficient and as rooftop solar continues to grow, this unrecovered cost will have to be paid for by someone. That someone will almost certainly be those customers that do not have rooftop solar. 97% of APS customers do not have rooftop solar today. From what I have seen, this huge and silent majority has been absent from the public debate that's been going on. I'm quite sure what the answer would be if you asked the 97% how they feel about paying more for their electricity so that others can install new rooftop solar systems.

The companies and their consultants that advocate for rooftop solar argue that rooftop solar brings large benefits to the utility (and its ratepayers) that in the long run will outweigh the unrecovered fixed costs that the utility is incurring today. They point to studies and forecasts that show this to be true. Today, there is little hard evidence or empirical data that supports their conclusions and I am admittedly skeptical of these studies.

I believe that rooftop solar will provide some benefits to APS and its ratepayers. I also believe that rooftop solar will impose unknown costs on APS and its ratepayers. Remember that the APS distribution system was designed for a one-way flow of electrical power and not a two-way flow. We will only know what the true cost of rooftop solar is for APS and all of its customers after we have many years of actual experience at scale. In my opinion, we don't have enough experience with rooftop solar at scale in Arizona to know what the longer term consequences will be.

In conclusion, we recommend you consider the following:

- 1. Increase the currently agreed fixed charge of \$0.70 per kW that was approved by the Commission on 11/14/13. In our opinion, this is far too low to recover the fixed system costs of APS avoided by rooftop solar customers.
- 2. Promote the purchase of cost-effective solar energy by regulated utilities. It's clear what the cost of utility-scale solar energy is and that it's the least expensive form of solar energy available. It's reasonably clear what the cost of rooftop solar energy is and



that it's more expensive than utility-scale solar energy by a multiple. It's not clear what the true value of rooftop solar energy is and we do not believe the Commission can accurately estimate in advance what this will be. In our view, rooftop solar is worth the cost of utility-scale solar plus a small, additional premium to account for its distributed nature.

3. Finally and in light of the uncertain value of rooftop solar, if the Commission believes that as a matter of policy it should further encourage the growth of rooftop solar, it can increase the rooftop solar premium. This "premium" should be recovered from all ratepayers in a transparent manner.

We believe that APS, its customers and the Commission are best served by a rate design that accurately allocates fixed costs to fixed-charge recovery mechanisms and variable costs to variable-charge recovery mechanisms, such that every customer is fairly paying their own share of fixed and variable costs.

We appreciate the opportunity to provide comment on the matter.

Sincerely

David Getta

**General Manager**