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> AZ CORP COMMISSION DOCKET CONTROL

November 6, 2013

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> Arizona Corporation Commission **DOCKETED**

> > NOV - 6 2013

DOCKETED BY

Re:

October 17, 2013 Letter Concerning Staff Alternative #2 Inputs

Docket No. E-01345A-13-0248

Dear Commissioner Pierce:

Thank you for your October 17 letter in the above-referenced docket. It highlights a key point in this discussion about how much customers should pay for solar. There has been no disagreement that solar facilities provide value. But many disagree on how to characterize and quantify that value.

The premise behind Staff Alternative #2 is that the Commission does not need to settle this disagreement. No one credibly disputes that larger scale solar facilities capture the same benefits of a rooftop system when interconnected to the distribution system. Both involve the same technology providing the same type of renewable resource to the same customers on the same system while satisfying the same Renewable Energy Standard. Because the two types of facilities provide the same value, why should APS customers pay more for energy produced by rooftop solar than for energy produced by utility-scale solar facilities and sold through purchased power agreements (PPAs)?

In other words, why pay more for the same sun?

The answer is you shouldn't; the price paid for solar energy through PPAs should be the ceiling for the price paid for solar from rooftop solar. Staff Alternative #2 provides a vehicle for the Commission to address the cost shift without any need to further quantify the value provided by solar energy. Staff Alternative #2 would involve rooftop solar customers paying a DG Premium that represents the difference between a PPA rate and the retail rate they avoid through Net Metering. APS believes that if Gary L. Pierce November 6, 2013 Page 2 of 3

accurate numbers are used for these two inputs, Staff Alternative #2 would meaningfully address the cost shift.

With respect to your questions, APS responds as follows:

Question 1: What is the most realistic Assumed Utility-Scale PPA Rate?

Response: Your question focused on utility-scale systems between 1 to 5 MW. APS, however, does not believe that the PPA comparison should be limited to systems that small. Utility-scale solar facilities as large as 15-20 MWs can interconnect to APS's distribution system. With that size assumption, APS believes that \$0.07/kWh is a reasonable proxy for the Assumed Utility-Scale PPA Rate. As noted in APS's November 4, 2013 Comments, this rate is based on several recent California PPA bids, two of which were reduced to contract.¹ Moreover, the Lawrence Berkeley National Laboratory report referenced in the November 4, 2013 comments filed by First Solar, Inc. in this docket indicate that some PPA prices are even lower, with some of the most recent PPAs in the west ranging between \$0.05/kWh to \$0.06/kWh in 2012 dollars.² As a final note, the PPA rate used in Staff Alternative #2 is an issue of policy. If, in implementing Staff Alternative #2, the Commission selects a PPA rate that is slightly lower than what is available in the market, the Commission would in effect be forcing rooftop solar companies to drive down their costs through innovation or otherwise.

Question 2: What is the most realistic Assumed Retail Rate?

Response: Regarding retail rates, the analysis discussed in and attached to APS's responses to Staff Data Requests 1.21 and 1.49 indicate that the typical APS solar customer avoids a retail rate of \$0.135 before sales tax.

¹ See Riverside Public Utilities Board memorandum, dated September 6, 2013, attached to APS's Notice of Filing Data Requests and Responses, dated September 23, 2013; see City of Alto City Council Staff Report, available https://www.cityofpaloalto.org/civicax/filebank/documents/34789 (identifying the City's receipt of three PPA bids with prices just below \$0.069/kWh or just above \$0.071/kWh); see City Palo Alto Resolution No. 9344, available https://www.cityofpaloalto.org/civicax/filebank/documents/35120 (memorializing the City's decision to enter into a PPA priced at just under \$0.069/kWh).

² See Mark Bollinger and Samantha Weaver, Utility-Scale Solar 2012: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States, Lawrence Berkeley National Laboratory (Sept. 2013), attached as Exhibit B to the Comments filed by First Solar, Inc. in this docket on November 4, 2013.

Gary L. Pierce November 6, 2013 Page 3 of 3

Question 3: Of the scenarios shown in Staff's Appendix III, which is the most realistic scenario?

Response: Using a PPA rate of \$0.07/kWh and an avoided retail rate of \$0.135/kWh, Staff's tables indicate a DG Premium of \$56.89/month for a 6.4 kW solar system. This monthly amount is very close to the average monthly payment of \$55/month that would be required by APS's ECT-2 rate. APS believes that coupled with up-front incentives, a DG Premium of \$56.89/month would align grid use with fixed cost contribution while addressing the cost shift and preserving the opportunity to install solar for APS customers.

Sincerely.
Thomas Loquvam

c: Chairman Bob Stump
Commissioner Brenda Burns
Commissioner Bob Burns
Commissioner Susan Bitter Smith
Parties of Record