

1	BEFORE THE ARIZONA CORPORATION COMMISSION		
2	BOB STUMP Chairman		
3	GARY PIERCE Arizona Corporation Commission		
4	BRENDA BURNS		
5	BOB BURNS		
6	Commissioner SUSAN BITTER SMITH Commissioner Commissioner		
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8	IN THE MATTER OF ARIZONA PUBLIC) DOCKET NO. E-01345A-13-0140 SERVICE COMPANY FOR APPROVAL OF		
9	ITS 2014 RENEWABLE ENERGY		
10	STANDARD IMPLEMENTATION PLAN FOR RESET OF RENEWABLE ENERGY		
11	ADJUSTOR		
12	IN THE MATTER OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF DOCKET NO. E-01345A-14-0250		
13	ITS 2015 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN DECISION NO. 74878		
14	FOR RESET OF RENEWABLE ENERGY ORDER		
15	ADJUSTOR		
16	,		
17	Open Meeting December 18 and 19, 2014		
18	Phoenix, Arizona		
19	BY THE COMMISSION:		
20	FINDINGS OF FACT		
21	1. Arizona Public Service Company ("APS" or "Company") is certificated		
22	electric service as a public service corporation in the State of Arizona.		

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- 2. During the Arizona Corporation Commission ("Commission") deliberations concerning the 2014 APS Renewable Energy Standard and Tariff ("REST") Plan, the Commission queried APS about its need for 30 MW of AZ Sun projects to meet its 2009 Rate Case Settlement Agreement ("2009 Settlement") obligations.
- 3. In Decision No. 74237 (January 7, 2014), the Commission ordered APS to submit information in this docket by April 15, 2014 "regarding whether it is necessary to continue the final 30

MW phase of AZ Sun in order to comply with the 2009 Settlement Agreement." APS was also required to discuss, in its filing, the "cost-effectiveness of utility-owned generation and third party wholesale purchased power agreements in completing this final 30 MW phase of AZ Sun."

- 4. APS docketed its compliance filing in this matter on April 15, 2014. APS said that recent data indicated that "APS does not need all 30 MW of AZ Sun to meet its obligations under the 2009 Settlement to acquire 1,700,000 MWh of new renewable energy resources by December 31, 2015."
- 5. APS did request, in its April 15 filing, authorization to construct a 20 MW utility-owned solar PV project that would be located at APS's Redhawk Power Station.
- 6. In its April 15, 2014, filing, APS compared the advantages and disadvantages of third party-owned solar projects to those of utility-owned projects. APS asserted that "utility-owned resources often provide significant economic and non-economic benefits for customers over the long-term, and pose less overall risk." APS also asserted that "...utility ownership is a prudent option for reliable, low-cost renewable energy."
- 7. On July 28, 2014, APS filed a Supplemental Application, proposing the AZ Sun DG Program. The AZ Sun DG Program is an alternative to the 20 MW Redhawk project. This 20 MW utility-owned DG program would "strategically deploy DG to maximize system benefits."
- 8. In this Solar DG Program, APS would install solar DG systems on the residential customer's roof and on the utility side of the meter. APS would use local solar contractors, selected competitively, to install the Solar DG systems throughout the APS service territory. APS would "rent" the customer rooftop for a \$30 per month bill credit. All of the solar-generated electricity would be resold by APS to its customers.
- 9. On October 7, 2014, APS filed a "Project Description of the Proposed AZ Sun Residential Rooftop Project". This filing included program administration details.

Verification of the Need for an Additional 20-30 MW of Solar

10. In Decision No. 74237, the Commission ordered APS to "submit information to this docket regarding whether it is necessary to continue the final 30 MW phase of AZ Sun in order to comply with the 2009 Settlement Agreement, as well as discuss the cost effectiveness of utility-owned

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generation and third party wholesale purchased power agreements in completing this final 30 MW phase of AZ Sun."

- 11. The Commission further ordered "that when Staff files its recommendations regarding Arizona Public Service Company's 2015 REST Implementation Plan, it shall include a discussion of whether or not Arizona Public Service Company needs to install any portion of the final 30 MW phase of AZ Sun in order to comply with the REST Rules and/or the 2009 Settlement Agreement. These recommendations shall consider the information filed by Arizona Public Service Company and any interested parties regarding the cost effectiveness of utility-owned generation and third party wholesale purchased power agreements in completing this final 30 MW phase of AZ Sun."
- 12. In a letter dated August 14, 2014, Commissioner Susan Bitter-Smith asked APS the following question: "Does APS need 20 MW for its Arizona Sun Program in order to meet its Arizona Sun energy requirements?" APS responded in a letter dated August 29, 2014, stating: "APS might reach this requirement based on estimated third-party installation activity. But it might not." APS went on to say: "An additional 20 MW of AZ Sun is a reasonable amount that would ensure APS achieves compliance, but not exceed the target by too much." A total of 18.1 MW of third party owned DG was installed in the APS territory in the first three quarters of 2014.

Staff's Review of APS's Assertion that 20 MW of New Solar Resources are Needed

- 13. In order to determine the possible need for an additional 20-30 MW of AZ Sun projects, Staff sent data requests to APS requesting information showing how many MWh of the 2009 Settlement requirements are currently being provided by installed and operating systems, how many MWh are expected from systems under construction or reserved; and how many MWh of the requirements are currently uncommitted. Staff also requested APS to show how many MWh would be provided by the Redhawk proposal and how many would be provided by the APS Solar DG proposal. The responses by APS to Staff form the basis of the calculations shown in Table 1.
- 14. The APS calculations, shown in Table 1, indicate that the 20 MW APS Solar DG proposal would be deficient in meeting the Settlement requirements. However, a larger APS-owned DG program, with more than 3,000 homes, could be designed to meet the 2009 Settlement requirements.

Table 1.

APS Calculations of MWh Needed to Meet the 2009 Settlement Requirements^{1,2}

<u>Category</u>	MWh Provided	MWh Needed
I. Existing and Operating Systems	1,560,594	
II. Systems under construction/reserved	98,463	17.00
Subtotal	1,659,057	
III. Additional MWh Needed		40,943
IV. 20 MW Redhawk Output	56,064	None: 15,121 extra
V. 20 MW APS DG Output	33,000	7,943

APS's Supplemental Response to Staff's Fifth Set of Data Requests provided by APS on September 26, 2014.

² Includes 18.1 MW of third party owned DG installed in the first three quarters of 2014.

15. After having reviewed APS's two filings and APS's responses to Staff's data requests, along with APS's August 29th reply to Commissioner Bitter-Smith, Staff believes that there may be questions as to whether APS has established an absolute need for at least 20 MW of new solar in order to meet APS's 2009 Settlement agreement requirements. Especially considering that over 18 MW of third party capacity was installed in the first three quarters of 2014. At that pace, over 20 MW would be installed in 2015.

Staff Recommendations

16. Based on the above, Staff does not believe that APS has reasonably demonstrated that an additional 20 MW of AZ Sun is needed to meet the requirements of the 2009 Settlement. Therefore, Staff recommends that APS submit information in its next REST Implementation Plan filing, due July 1, 2015, discussing whether APS will meet its 1,700,000 MWh of renewable resources by December 31, 2015. If APS cannot meet that requirement, APS should be granted, at this time, a one year extension of that requirement.

Discussion

17. On December 3, 2014, APS filed a new proposal for installing and owning residential rooftop DG. The primary revisions to its original proposal are that the project would now only be 10 MW (instead of 20 MW) and that APS would no longer be seeking cost recovery through the REST surcharge, but would instead seek recovery in a future rate case just as it does for all plant investment between rate cases.

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18.	APS is also seeking Commission approval of its proposal to own residential rooftop
DG, even the	ough no such approval is legally required. Since APS is not seeking cost recovery prior to
putting this p	lant into service, it may seek cost recovery in its next rate case after this plant is actually
being used.	

- 19. The Commission agrees with Staff that the proposed 20 MW AZ Sun DG project may not be needed to meet the Company's 2009 Settlement requirements. However, a modified pilot program may be useful to better understand the effectiveness and efficiencies that could be gained related to technical and operational considerations of utility-owned DG. This modified pilot program will also address solar availability to underserved customers, as APS has committed to do, and provide a cushion if the market does not reach the levels prescribed in the 2009 Settlement or REST requirements.
- 20. Our current method of energy delivery is rapidly changing with the advent of emerging technologies and the rooftop solar market is a significant part of this evolution. Thus, there appears to be an opportunity for sensible and cost-effective utility involvement in distributed solar in order to ensure grid reliability and resiliency as energy generation and delivery continues to evolve. A targeted project would: (1) balance the project costs with the potential benefits identified by APS; (2) permit APS to study grid benefits that might come with strategically locating solar and to assess the benefit of orienting solar panels towards the southwest and west to maximize production during system peak periods; and (3) apply this project capacity to the REST DG requirement while utilizing the existing 30% Federal Investment Tax Credit.
- 21. Therefore, the Commission has no objection to APS implementing an 8-10 MW pilot project of utility-owned DG to target specific distribution feeders in an effort to maximize potential system benefits from the deployment. The first stage should be 8 MW in size followed by a 2 MW second stage. The additional 2 MW should only be deployed if coupled with distributed storage in order to achieve operational benefits.
- 22. The Commission's non-objection to this pilot project should not be viewed as preapproval for rate making purposes in a future rate case. No determination of prudency is being made

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at this time. Such a determination will be made during the rate case in which APS requests cost recovery of this project.

- 23. The 8-10 MW program is subject to a total operation and maintenance cost cap of \$25/kW per year and a total capital cost cap of \$28.5 million. APS should use competitive bids solicited through an independently-monitored RFP process.
- 24. The Commission seeks to ensure that the cost of the APS program is similar to that of third-party programs; therefore, APS commits to cost parity with current net metering rates, and if rate design is addressed in the future in a way that materially impacts existing net metering participants, APS should evaluate options for existing solar customers, as well as APS DG customers, to minimize any cost parity issues between the two groups and unintended impacts. The Company will not collect costs for this program through the REST surcharge, but will address cost recovery in APS's next rate case in the same manner as traditional rate base additions. The Company is on notice that the Commission's approval of this pilot project is not a determination of prudency for rate making purposes.
- 25. Since this is a unique pilot project, APS should form an unpaid, voluntary advisory committee that would advise on a defined set of research goals. This advisory committee would be convened by APS and include representatives involved in technological and operational aspects of rooftop solar and supporting infrastructure. This group of stakeholders should include, but not be limited to: Commission Staff, the Electric Power Research Institute ("EPRI"), the Residential Utility Consumer Office ("RUCO"), other Arizona electrical utility system operators or engineers, a rooftop solar industry representative, an inverter manufacturer representative, and university power systems engineering departments. The group would review the direction of the project and provide feedback on program design. Reports on the program results as compared to delineated program research objectives should be made public. Finally, if coupled with storage, APS may deploy the final 2 MW of the project. The research objectives of this 8-10 MW project include, but are not limited to:

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a. Understanding feeder capacity benefits

b. Ascertaining distribution effects of solar penetration

c. Discovering ways to enhance grid flexibility

d. Gain a better understanding of the capabilities of invertor controls e. Provide opportunities to study energy storage and PV coordination and management at the feeder level.

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CONCLUSIONS OF	LAW

- 1. Arizona Public Service Company is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona constitution.
- The Commission has jurisdiction over Arizona Public Service Company and over the subject matter of the application.
- 3. The Commission, having reviewed Arizona Public Service Company's application and Staff's Memorandum dated November 3, 2014, concludes that it is in the public interest to deny 20 MW for AZ Sun at this time and to also not object to APS's proposed 8-10 MW utility-owned DG pilot project as described herein.
- The Commission's non-objection to this pilot project is not to be viewed as preapproval for rate making purposes in a future rate case and no determination of prudency is being made at this time.

ORDER

IT IS THEREFORE ORDERED that the Arizona Public Service Company proposals to build a 20 MW Redhawk facility or to build 20 MW of Arizona Public Service Company-owned DG systems are denied. However, APS may pursue an 8-10 MW, utility-owned, DG pilot project as described herein. Under this smaller 8-10 MW DG project, APS should only install rooftop solar where doing so will assist APS in determining whether and how solar can be strategically located to provide grid benefits.

IT IS FURTHER ORDERED that any determination of prudency of Arizona Public Service Company's 8-10 MW, utility-owned DG pilot project for rate making purposes shall not be made until the project is fully in service and Arizona Public Service Company requests cost recovery in a future rate case.

IT IS FURTHER ORDERED that when Arizona Public Service Company files its recommendations regarding Arizona Public Service Company's 2016 REST Implementation Plan, it shall include a discussion of whether or not Arizona Public Service Company will meet its 1,700,000 MWh of renewable resources requirement of the 2009 Settlement by December 31, 2015.

5	IT IS FURTHER ORDERED that this Order shall become effective immediately.
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7	BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION
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9	CHAIRMAN COMMISSIONER
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12	COMMISSIONER COMMISSIONER COMMISSIONER
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14	IN WITNESS WHEREOF, I, JODI JERICH, Executive Director of the Arizona Corporation Commission, have
5	hereunto, set my hand and caused the official seal of this
6	Commission to be affixed at the Capitol, in the City of Phoenix, this 23rd day of December, 2014.
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9	EXECUTIVE DIRECTOR
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SERVICE LIST FOR: Arizona Public Service Company 1 DOCKET NO. E-01345A-13-0140 2 3 Mr. Daniel Pozefsky **RUCO** 4 1110 West Washington Street, Suite 220 Phoenix, Arizona 85007 5 6 Mr. Mark Holohan Arizona Solar Energy Industries Association 7 2221 West Lone Cactus Drive, Suite 2 Phoenix, Arizona 85027 8 Mr. C. Webb Crockett Fennemore Craig, P.C. 2394 East Camelback Road, Suite 600 10 Phoenix, Arizona 85016 11 Mr. Court Rich 12 6613 North Scottsdale Road, Suite 200 Scottsdale, Arizona 85250 13 Mr. Garry Hays 14 The Law Offices of Garry D. Hays, PC 1702 East Highland Avenue, Suite 204 15 Phoenix, Arizona 85016 16 Mr. Thomas A. Loquvam 17 Pinnacle West Capital Corporation 400 North Fifth Street, MS 8695 18 Phoenix, Arizona 85004 19 Mr. Steven M. Olea 20 Director, Utilities Division Arizona Corporation Commission 21 1200 West Washington Street Phoenix, Arizona 85007 22 Ms. Janice M. Alward 23 Chief Counsel, Legal Division 24 Arizona Corporation Commission 1200 West Washington Street 25 Phoenix, Arizona 85007

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