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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2012 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN AND REQUEST FOR RESET OF RENEWABLE ENERGY ADJUSTOR.

DOCKET NO. E-01345A-11-0264

INITIAL COMMENTS OF WESTERN RESOURCE ADVOCATES

Western Resource Advocates (WRA) hereby submits comments on several components of Arizona Public Service Company's (APS') 2012 Renewable Energy Standard (RES) Implementation Plan.

Renewable energy provides a stably priced hedge against high natural gas prices as renewable energy displaces gas-fired power generation. It also results in reduced air emissions relative to conventional generation. Some technologies, such as geothermal, biomass, and concentrating solar power with thermal storage, provide energy when demanded. Further, the RES has helped induce cost decreases in the renewable energy industry through technological improvements, learning by doing, and economies of scale in manufacturing and installation.

1. APS' plan for central station (non-distributed) resources should be approved because it will meet the Settlement goal. Under the settlement agreement (Section 15.1) approved in Decision No. 71448, APS is to make its best efforts to acquire new renewable energy resources with annual generation or savings of 1,700,000 MWh to be in service by December 31, 2015. These new resources include distributed and non-distributed projects and are in addition to existing resources or commitments as of the end of 2008.

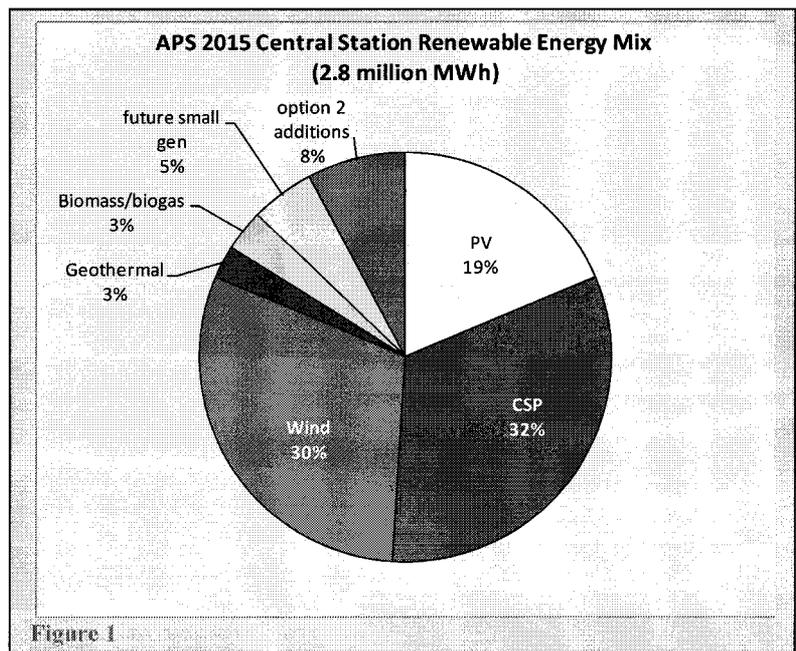


Figure 1

APS' 2012 implementation plan is on track to meet the settlement goal. Figure 1 shows the mix of central station (non-distributed) renewable resources in 2015 planned by APS assuming that option 2 is selected.

2. APS' plan to seek innovative renewable energy technologies should also focus on innovative applications of renewable energy. APS' plan (page 18) continues a program authorized under Decision No. 72022 (page 21) in which APS would fund innovative renewable energy projects and thereby facilitate the development of early commercial technologies. During the second half of 2011 APS will issue a funding opportunity announcement for the innovative renewable technologies project seeking turnkey projects for renewable resources. WRA recommends that APS work with municipalities and seek out innovative distributed energy applications, such as:¹

- Projects in ecological restoration areas and public gardens
- Projects at airports
- Projects serving water supply systems (typically for pumping water)
- Projects on noise barriers
- Projects on underutilized land such as decommissioned landfills or former industrial sites

3. The Commission should approve a sufficient budget for energy storage research and development and encourage greater efforts on energy storage in future implementation plans. APS' commercialization and integration studies include energy storage (page 37 of APS' plan).

As intermittent renewable energy resources play a larger role in APS' energy mix, energy storage will become increasingly important.² Energy storage enables APS to:

- Provide renewable energy for its customers from wind and photovoltaic (PV) resources when the sun is not shining or the wind is not blowing.
- Supply renewable energy at peak hours to displace expensive conventional generation.
- Integrate intermittent renewable energy resources into the grid as output from solar or wind projects changes rapidly.

Because design, development, and installation of energy storage are important to the long term value of wind and PV resources, WRA recommends that, going forward, APS' deployment of energy storage projects should be greatly increased. In particular, WRA recommends that, in future implementation plans, APS design and pursue large energy storage projects. For

¹ For specific examples, see Western Resource Advocates, *Solar Solutions: Incorporating Photovoltaics into Public Infrastructure*, 2011.

² APS' Solana CSP project incorporates molten salt storage that will enable APS to produce electricity from this resource during hours when the sun is not shining.

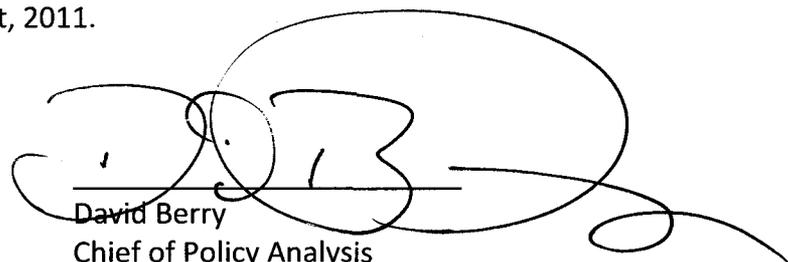
example, flywheel and large battery projects are being used elsewhere³ and APS could deploy these types of projects in its system and analyze their performance and costs.

4. To better inform the Commission about its renewable energy research, commercialization, and integration plans and activities, APS should improve the format of its plans and reports.

At present, APS does not provide much information about these activities. WRA suggests that APS use a standard one page format for each project and report the following information in both its implementation plans and compliance reports: study objectives, relevance of the study to the RES, budget or expenditures, parties conducting the research, research schedule, progress indicators, and, for compliance reports, study outcomes.

5. The Commission should approve APS' request regarding cost recovery for the Chino Valley project. APS (RES implementation plan, p. 15) would like to move forward with the 19 MW Chino Valley PV project as soon as possible as it has already executed a contract for this project. Therefore, APS has requested that the revenue requirements associated with the Chino Valley PV project initially be recovered through the RES adjustor rather than wait for a Commission decision on the cost recovery mechanism in the 2011 rate case. After the rate case is concluded, the costs would then be recovered by the means established in the rate case. WRA recommends approval of APS' request – there is no benefit to waiting.

Respectfully submitted this 18th day of August, 2011.



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³ For example, a 20 MW Beacon Power Corporation flywheel project is now in place in Stephenville, NY and AES Energy Storage has installed the first 8 MW of a 20 MW battery storage project in Johnson City, NY.