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August 16, 2011

Docket Control  
Arizona Corporation Commission  
1200 W. Washington Street  
Phoenix, AZ 85007

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RE: Arizona Public Service Company's 2012 Renewable Energy Implementation Plan  
Docket No. E-01345A-11-0264

Arizona Public Service Company ("APS" or "Company") recognizes that there are many parties interested in the 2012 Plan and in order to be proactive in responding to their questions, the Company has developed a Frequently Asked Questions ("FAQs"). The FAQs are included in this letter and located on the Company's website at [www.aps.com/renewables](http://www.aps.com/renewables) under the heading of "2012 Implementation Plan", and will be updated throughout the coming months. APS intends to use this format for addressing stakeholder questions and clarifications while the Commission is considering APS's 2012 Plan. In this way, APS believes all interested stakeholders can have the benefit of the Company's feedback on key issues.

APS's 2012 Plan covers the five-year period from 2012 through 2016 and addresses the implementation strategy APS will employ to achieve and exceed compliance with the 2012 RES requirements. In addition to the RES requirements, APS's 2012 Plan also addresses the requirements set forth in Decision No. 71448, which adopted the Settlement Agreement requirement relating to the Company's acquisition of new renewable energy resources with annual generation or savings of 1,700,000 megawatt hours by December 31, 2015, as well as APS's requirement to implement a Schools and Government Program that eliminates upfront costs to customers resulting in 50,000 megawatt-hours of annual energy generation or savings within 36 months of program approval by the Commission.

Based on the Company's current in-service and contracted renewable generation resources, APS projects that it will need to acquire and develop an additional 300 megawatts by December 31, 2015. To improve portfolio diversification, APS proposes to meet this obligation through two procurement methods: 1) additional customer and/or third-party owned systems; and 2) additional utility-owned projects, including additions to the AZ Sun Program and the 2011 Schools and Government Program. In its 2012 Plan, APS has proposed three options for Commission consideration to fulfill this 300 MW gap.

In the period between February and July 2011, APS held four stakeholder workshops with the noticed intent of discussing current Renewable Energy program performance and issues and specific strategies for developing the Company's 2012 Plan. Each session allowed attendees to openly ask questions of APS Renewable Energy personnel. APS also provided specific details and rationale about its proposed program options both before and after the July 1 filing.

APS is providing the following summation of general comments regarding its 2012 Plan and a corresponding response from the Company:

- ***What data is available that would support APS's claim that compliance will be reached in 2011? Where would an interested party find that specific data?***

APS updates its installed and reserved capacity for both its residential and non-residential DE programs as well as its renewable generation in operation on the [www.arizonagoessolar.org](http://www.arizonagoessolar.org) website on a weekly basis. The Company also updates information regarding its residential DE program on a weekly basis on its [www.aps.com/gosolar](http://www.aps.com/gosolar) website, and information on its non-residential DE program at the close of each corresponding nomination period. The information posted on the [www.aps.com/gosolar](http://www.aps.com/gosolar) website provides specific details on both the residential and non-residential DE programs including how much generation is installed, how much generation is reserved, how much of the budget has been spent or committed through a customer reservation and how much of the budget is remaining. Other important program information is also available to assist customers in understanding and participating in the incentive program.

In addition to these real time website updates, APS files an Annual Compliance Report with the Commission on April 1<sup>st</sup> of each year detailing the Company's Compliance with the RES Standard for the previous year, which is posted on the Company's [www.aps.com/renewables](http://www.aps.com/renewables) website.

- ***What determines the data that is included in APS's Annual Compliance Report?***

APS files its Annual Compliance Report in accordance with the RES Rules, A.A.C. R14-2-1812. As required by the RES Rule, the Company's Annual Compliance Report includes, among other things, the kilowatt hours of actual energy obtained from eligible renewable energy resources; the kilowatt of generation capacity, disaggregated by technology type; cost information regards cents per actual kilowatt hour of every obtained and cents per kilowatt of generation capacity, disaggregated by technology type; and a description of APS's procedures for choosing renewable resources and a certification from an independent auditor that that those procedures are fair and unbiased and have been appropriately applied.

- ***Can the three options for third-party ownership proposed by APS be broken out rather than bundled together? If not, why?***

APS has proposed three options for how the Company will obtain 150 MW of the capacity needed to meet its requirements. These options are primarily based on the amount of additional distributed energy the Commission believes is appropriate for APS to procure given the Company's existing DE commitments. The intent of providing the proposed options is to present alternatives representing three strategies to achieve minimum compliance. In addition, APS is seeking direction from the Commission on the appropriate amount of annual residential distributed incentives. Each of the three options proposes a distinct energy target and budget allocation. The component pieces of each proposed

option are included in the budget and energy exhibits (see Exhibits 3A, 3B and 3C) of the 2012 Plan.

- ***What method would APS use to evaluate the cost of Performance Based Incentives ("PBI") compared to Purchase Power Agreement ("PPA")?***

The cost over the life of the projects is the fundamental metric used for evaluating how cost-effective an option may be. For PPAs, the costs to customers are primarily driven by the contracted purchase price for the term of the agreement (typically 20-30 years). For PBI projects, the costs to customers include the PBI payments over the term of the agreement (typically 10, 15, or 20 years) plus the utility fixed costs, which must be redistributed to the balance of APS customers. Under both approaches, the utility avoids the costs of energy and capacity from conventional generation resources. To the extent that the production profiles of projects differ, the avoided costs would need to be adjusted to ensure comparability. PPAs are more cost effective for customers than PBIs, but less cost effective than utility owned resources.

- ***Why does APS believe that utility-owned assets are an important diversification strategy within the renewable energy portfolio?***

Incorporation of utility-owned assets is an important part of our renewable strategy because it diversifies the burden of responsibility for financing our renewable portfolio while benefiting APS customers with increased project certainty at a lower cost. The added control of the facilities, ability to upgrade as the technology permits, plus the benefit of owning the generation for the life of the plants will provide our customers lower costs and the high level of reliability they have come to depend on from APS. In addition, utility ownership provides APS with increased flexibility to take advantage of and mitigate potential risks with evolving tax laws, potential changes in accounting standards and challenging financial markets.

Utility-owned generation also provides an avenue for more third-party developers to propose projects which increases competition and diversifies the marketplace. APS believes it's unreasonable to require third-party developers to finance the entire renewable portfolio since this increases the risk and lowers the certainty for APS customers. Therefore, a diversified approach provides strong balance for managing financial risk and project development certainty while increasing the overall value to APS customers.

- ***Can APS describe why utility-owned assets are more cost-effective over the long-term than third-party owned systems?***

*Utility Scale Assets*

When comparing, in a head-to-head competition, the costs of a utility-owned utility-scale asset to the costs of a third-party owned asset as submitted via market bids, APS's analysis has found that utility-owned assets have lower costs over both the term of a 25-year PPA and the life of the asset. This analysis relies on data that has been market-tested where the PPA-bid prices are for substantially the same, if not identical, utility-scale PV projects. The utility-owned analysis considers the costs to customers through the standard utility rate base approach where the capital investment is depreciated over time

and the utility recovers its financing costs on the diminishing net investment each year. These costs are compared to the PPA prices offered on the same or similar projects plus any required replacement energy costs after the expiration of the PPA. On a nominal dollar basis, with no discounting for the time value of money, the utility-owned projects are between 25 percent and 30 percent less expensive than the PPA market bids. Even with discounting, the APS analysis shows that utility-ownership is less expensive by 10-15 percent on a net present value basis.

*Customer Sited Third-Party Distributed Systems*

Similarly, in a head-to-head comparison of the costs of utility-owned customer-sited PV assets to the costs to customers of providing performance-based incentives PBI over 20 years through a third-party development option, the analysis shows that utility-ownership is typically 10 percent less expensive than the third-party (or PBI model) option. On a net present value basis, the savings are on the order of 5-10 percent. The utility-owned analysis considers the costs to customers through the standard utility rate base approach where the capital investment is depreciated over time and the utility recovers its financing costs on the diminishing net investment each year. In addition, the utility-owned analysis takes into consideration the financial contribution provided by the participating customer to fixed utility costs and the capital investment of the PV asset via the Rural Schools Solar Program Rate Rider ("RSSP Rider"). These costs are compared to the estimated costs of PBI payments for 20 years and the redistribution of utility fixed costs to non-participating customers. Note that the required redistribution of utility fixed costs is essentially the same in the utility-ownership model and in the PBI model, but the application of Rate Rider Schedule Schools and Government Solar Program in the utility-ownership model eliminates that as a cost to other customers.

- ***Is APS proposing new funding for the third-party portion of the Schools and Government Program?***

The original 2011 third-party incentive budget of \$27 million was based on an expected 50/50 split between third party and utility-owned systems under the program. Decision No. 71646 specified that the utility ownership portion of the Program could not exceed 25 percent of the expected program capacity. Therefore, the third-party incentive offering was increased to accommodate the 25 percent utility-owned systems and 75 percent third-party owned systems. This had the effect of increasing the total third-party incentive funding for this program in 2012 to \$65.8 million of lifetime commitments, an increase of \$38.8 million for incentives over what was proposed in APS's 2011 RES Implementation Plan for Schools and Government Program budget.

- ***How can developers/ installers compare their bids to what APS offers to Schools & Government Program participants? Do customers have access to additional incentives through APS that they would otherwise not receive if they went with a third-party installer?***

APS does not compete for the utility-owned projects under the Schools and Government Program, rather the offering is based APS's RSSP Rider. Included in the RSSP Rider are details on the solar rates offered to host Customers.

Further, all non-solar related incentives available to hosts of utility-owned generation are also available to all participants in the third-party incentive offerings. One additional incentive that is outlined in the program that is available to all customers is that for each school district or governmental institution that installs a photovoltaic ("PV") or solar thermal ST system and qualifies for incentive funding under the Schools and Government Program, that customer will receive reimbursement for one solar daylighting SDL installation up to \$30,000. This offering is available to both third-party owned systems and customers hosting a utility-owned system. Through this proposed Program, all customers opting to receive a SDL installation through this offer shall be required to explore APS's Energy Solutions for Business program and receive a free Direct Install proposal on other potential energy conservation measures at the facility. These parameters were part of the Company's original filing in April 2010 and approved by the Commission both in December 2010 and January 2011.

It should be noted that when APS discusses the Schools and Government program with potential participants, the Company describes the full program and the opportunities available through third-party developers. APS also cannot make any commitments to customers for utility-owned systems without that entity first meeting all eligibility requirements as set forth in Decision No. 72174, which includes receiving a proposal from a third-party developer not affiliated with APS.

- ***Why is APS installing production meters?***

In its 2012 Plan, APS proposed to install production meters on all customer-sited PV systems installed in the Company's territory. The data from these meters will provide APS with the actual production and RECs produced from all residential and non-residential PV systems installed on its systems which will allow for production reporting based on increased data and will be included as part of APS's annual Compliance Report. Additionally, APS will be able to identify and address any systems that are underperforming in order to maximize production of its DE resources. The initiative will also facilitate the integration of the "aggregated" resource into APS resource planning and system operation efforts. More granular production and variability data will support planning that can better recognize the value of this growing resource.

- ***In light of the demand for residential and non-residential DE systems, and the constrained incentive funding in each category, why does APS need to continue funding the Solar Coach?***

The primary benefit of the Solar Coach is that they are unaffiliated with any particular technology or company and can provide objective guidance to customers interested in solar energy. The Solar Coach role also supports many customers through the continued evaluation of complementary renewable energy choices, often after they have made the initial decision to install solar. It is also important to note that while the demand for solar PV has remained high, the demand for solar water heating still has room to grow. The Solar Coach is well positioned to help support the growth needed in solar water heater installations.

- ***Why is APS proposing to allocate \$1.5 million of the RES budget to fund an "integrated pilot program"?***

**APS Response:** Arizona is on the forefront of deployment in both distributed energy and energy efficiency resources. These new technologies will challenge APS's traditional distribution system operation as they increase in penetration and sophistication in coming years. Traditional distribution systems are designed for one-way power flow with very little influence or impact by local generation. It is critical that the Company understand and manage the potential impacts these resources pose to assure continued safe and reliable power to its customers and enable increasingly greater amounts of distributed energy, demand response and energy efficiency. The Integrated Energy Pilot ("Pilot") is designed to explore the potential benefits and impacts of these technologies in a defined geographic area where specific technologies can be investigated. The Pilot program builds upon "smart" distribution system technology that is funded through base rates and is in the process of being deployed currently.

As ordered in Decision No. 72060, the project is to be focused in a bounded territory and will build on the Company's experience with various utility smart grid technologies. The budget associated with the demand side management ("DSM") aspects of the Pilot are included separately in the Company's DSM Implementation Plan, which was filed on June 1, 2011. The 2012 RES Plan only includes the costs associated with the renewable energy components of the Pilot. APS's proposed RES adjustor including the \$1.5 million budget is in addition to the overall residential incentive budget proposed under the options and will be used for the inverter equipment, internal production meter installations and communication support.

- ***Why is APS requesting to allocate \$1.8 million for research and study of renewable resources? What are the benefits to customers/ratepayers? What has APS achieved from past funding for renewable R&D?***

APS realizes that in many respects the renewable industry invests heavily in advancing research and development in this space, APS's focus is to work to bridge the challenge of utility integration, operation, and in some respects the commercialization of maturing solutions and technologies. APS is currently seeing a dramatic increase in renewable resources on its systems, both in the field distribution systems and internal operations. This increase in variable renewable resources is primarily located on the local distribution systems and its feeder networks. These systems are critical to system reliability and APS must assure reliability under conditions of high levels of variability and intermittency. Additionally, as renewable resources increase on the distribution system, APS expects to see increased pressure on its transmission system and generation facilities. The Company's current set of studies are to ensure that the energy produced from the renewable resources on its system ensure the reliability of the APS system going forward so that APS and its customers can continue the growth of renewable resources.

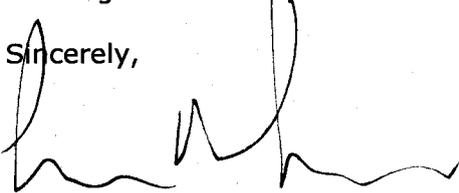
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The study of new renewable technologies and enabling technologies is also important to verify that APS customers are receiving renewable resources that are the best value and will be ready for deployment over the life of the facility. Studies and research activities occurring now around Solar Augmentation, Energy Storage and Concentrating PV are examples of such studies.

APS is supportive of a stakeholder process to review current and proposed initiatives for research and studies. A program update and stakeholder review and presentation of initiatives was held on May 25, 2011 prior to the 2012 Plan filing. APS plans to continue these stakeholder review meetings on a semi-annual basis and would welcome the participation of representatives of the Solar Alliance and other industry stakeholders.

APS will continue to identify and develop responses to important clarifying questions provided by stakeholders regarding its 2012 Plan. As noted earlier, these responses will be posted as FAQs on the Company's website [www.aps.com/renewables](http://www.aps.com/renewables) under the heading of "2012 Implementation Plan".

Sincerely,

A handwritten signature in black ink, appearing to read 'Eran Mahrer', with a large, stylized flourish extending upwards from the end of the signature.

Eran Mahrer  
Director, Renewable Energy

cc: Parties of Record

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this 16<sup>th</sup> day of August, 2011 to:

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