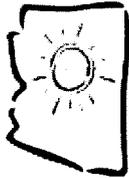


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Arizona Solar Energy  
Industries Association

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August 11, 2011

Arizona Corporation Commission

**DOCKETED**

AUG 15 2011

GARY PIERCE, CHAIRMAN  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP  
BRENDA BURNS

DOCKETED BY

RE: ARIZONA PUBLIC SERVICE COMPANY'S (APS) 2012 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN (Docket No. E-01345A-11-0264)

The Arizona Solar Energy Industries Association (AriSEIA)<sup>1</sup> hereby submits its preliminary comments in response to the application of Arizona Public Service Company (APS) for approval of its 2012 Renewable Energy Standard Implementation Plan (RES Plan) as docketed on July 1, 2011.

AriSEIA comprises many local, regional, and national companies supporting all aspects of the Arizona solar industry including installers, integrators, financiers, and manufacturers almost all of which are headquartered or have offices in Arizona. AriSEIA strongly favors a RES implementation that supports all market segments through open and fair competition resulting in market driven pricing.

**RESIDENTIAL PROGRAM**

DISTRIBUTED ENERGY (DE) RESIDENTIAL PROGRAM FUNDING

AriSEIA supports the DE incentive budget at \$40 million in 2012 because of Decision No. 72022. Within this decision APS was required to maintain funding at \$40 million at least through 2012. The only reason why APS should propose a modified budget downward would be due to "market factors" which have

<sup>1</sup> The comments contained in this filing represent the position of the AriSEIA as an organization, but not necessarily the views of any particular member with respect to any issue

not been clarified by APS. Because incentives are starting at \$1.30 and possibly triggering to \$1.20/watt, the cost of a residential REC is now \$0.0382 - \$0.0352. Additionally, if the residential market is in over compliance, AriSEIA recommends that those MW's go to the Settlement Agreement.

### DE PROGRAM ENHANCEMENTS

c. Signed Contract Requirement for Residential PV Applications:

AriSEIA supports this proposal. As we have seen in the recent months, millions of dollars of reserved funding have been added back to the budget because reserved projects do not get built. We believe one of the reasons this happens is some less than scrupulous installers encourage APS customers to apply for an incentive before the customer has committed to "go solar."

An enhancement we encourage the Commissioners to support, which is not in the APS Plan, is the ability for a customer to apply for an incentive in Q4 of the current year for a reservation in Q1 of the next year.

#### **Accept applications on October 1<sup>st</sup> for the following Q1 funding**

For continuity purposes, APS should accept incentive applications after the current year funding has been allocated but not before October 1<sup>st</sup>. This will allow customers to apply for incentives and the industry to plan for construction 90 days later. As we have stated in the past, the typical timeframe of a solar project is 90 days. If APS waits until January to start accepting reservation and if funding is depleted before the end of the current year, then this will create a slowdown in the deployment of solar. For example, if the current year funding is depleted by October 20<sup>th</sup> customers will have to wait to apply for an incentive until January 1<sup>st</sup> of the following year. This creates problems for a few reasons:

- APS will have an a plethora of applications to manage on January 1<sup>st</sup>
- Customers could experience longer than normal waiting periods due to the backlog experienced at APS
- APS may have to spend more money to manage the large amount of contracts, thus increasing administrative costs
- Installers will have to wait over two months to add new contracts to their construction schedule – this will create employment hardships at nearly every level for installation companies.

## COMMERCIAL PROGRAM

AriSEIA's core objection to the RES Plan as it relates to the future of the non-residential distributed generation market, is that it appears designed to stymie the free market and promotes the government regulated monopoly's interests above the interest in open competition for the benefit of the consumer/ratepayer. If the RES Plan is adopted as presented, Arizona's ultra-competitive commercial Distributed Generation (DG) market that has been quickly driving down prices would be decimated. Downward pressure on prices would stop, the jobs gained would be lost, and the ratepayers' previous investment in growing this DG segment would be wasted, as the segment would be completely disbanded.

The APS plan proposes a huge growth in APS' monopoly ownership over the coming four years – an enormous departure from the currently competitive landscape that has resulted in rapidly declining prices. As shown APS is proposing an astounding 3,759% increase in APS monopoly owned solar systems between now and the end of 2015 while only allowing for a 400% increase in 3<sup>rd</sup> party owned systems<sup>2</sup>. This huge shift in APS's proposed ownership plans will dramatically change the face of solar in Arizona, will crush competition, and will drive the commercial market segment into extinction. As one of the few business sectors actually creating jobs in Arizona, it is important to critically evaluate this monumental shift in Arizona's successful third party ownership driven solar industry and the Commission is being asked to decide if open and free competition should be sacrificed for increased monopoly control.

PV Capacity Growth (%)			
	Current	Dec-11	Dec-15
APS	100%	761%	3759%
3rd Party	100%	151%	402%

After reviewing the comments submitted to this docket by The Solar Alliance, Green Choice Solar, Wal-Mart, and Vestar Development, AriSEIA would like to identify areas of strong agreement with these organizations and to bring forward a couple topics that have not yet been reviewed. Main points of agreement include the need to:

- properly analyze relative costs and benefits of different options
- continue supporting the commercial segment,
- properly review the Schools and Government program.

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<sup>2</sup> APS 2011 RES plan filing page 13 of 138

One area of less than full agreement is the deposit required at time of an incentive award. This topic will be discussed after a review of the main points of agreement. Lastly, AriSEIA echoes the concerns about the transparency and accuracy of data issued by APS and agrees with the Solar Alliance that a proper response to the APS plan is difficult without the specific data requested by the Solar Alliance. We have heard from APS representatives that the data requested by the Solar Alliance and others will be shared at the Open Meeting the week of August 15<sup>th</sup> and we are appreciative that this conversation will happen before a vote later this year.

### **Continuing Support for the Non-Residential/Commercial Segment**

AriSEIA wants to be very clear: APS's options 1, 2, and 3 will all work against free market competition to the benefit of the regulated monopoly and are likely to decimate the private commercial DG sector. As such, AriSEIA cannot support any of these proposals and proposes an alternative solution in the recommendations section below. All manufacturers participating in the recent Arizona Solar Manufactures panel at the Arizona Solar Summit<sup>3</sup> indicated that a key factor in locating in Arizona was the vibrant solar market in all three key segments: residential DG, non-residential DG, and utility scale. Unfortunately, two of the three options presented by APS would virtually eliminate this critical market segment and the third option represents a significant reduction in funding levels.

As mentioned by all organizations submitting responses, options 1 and 2 of the APS RES would not only crush the free market, but would specifically eliminate commercial DE projects over 200 kW effectively terminating this specific market segment in its entirety.

A key part of the non-res/commercial segment is school districts that do not qualify for the third party ownership part of the Schools and Government program. These schools often participate in the commercial incentive process and often are the recipient of significant awards<sup>4</sup> in excess of 200 kW. These third party owned projects are proceeding well and are being implemented with incentives as low as \$0.098 /kWh. In options 1 and 2 these schools will most likely participate in the proposed APS owned expanded schools program. In this scenario, these exact same schools will often be accepted into expanded schools program with significantly higher incentive levels. In essence APS is proposing to take a successful third party program and replace it with a more highly incentivized program solely under APS control.

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<sup>3</sup> AZ Solar Summit August 2-3, 2011 – Panel lead by Polly Shaw, Suntech  
<sup>4</sup> PV USD 8.5 MW Dec, 2011; Buckeye SD, and Saddle Mountain Arp. 2011

In justifying the need for APS ownership of solar assets under the Schools & Government program in its 2011 APS RES Implementation Plan, APS responded to the solar community's assertions of "unfair competition" by claiming that APS' returns are not "guaranteed" by the Commission. Assuming this answer is factually correct, it is still misleading, as evidenced by the following excerpt from p. 13 of the APS 2012 RES Implementation Plan:

*"For the proposed utility-owned programs described below, APS is requesting approval for cost recovery of the revenue requirements associated with these renewable ownership programs (including depreciation expenses, property taxes, operating and maintenance expenses, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case) through the RES adjustor until the costs can be reflected in base rates. This cost recovery methodology is consistent with Section 15.7 of the 2009 Settlement Agreement adopted in Decision No. 71448, and with other Commission decisions related to the AZ Sun Program, the Community Power Project, and the Schools and Governments Program"*

In this situation there needs to be a clear understanding of the relative costs and merits of having APS transform a successful third party non-res/commercial market into a very likely higher priced program with APS ownership.

### **Proper analysis of costs of options**

AriSEIA strongly supports the objective of cost effective RE implementations that are also consistent with state policy objectives. Unfortunately, a frank and transparent discussion between APS and stakeholders of these costs is still needed. Having clarity on costs will significantly inform the debate about APS ownership in an expanded schools program. A key policy objective is to have 30% of the market be in Distributed Energy. Arizona's commitment to the policy needs to be reaffirmed in light of options 1 and 2.

As an example of lack of transparency in the discussion of costs, in the 2011 RES hearings APS submitted a graph showing it was less expensive to rate payers for APS to own a school solar facility than a third party in a SSA arrangement. The data APS presented to support this graph resulted in many questions from stakeholders. However, to date APS has not provided additional data supporting this

graph or its contention. AriSEIA encourages APS to work with the solar community to develop a strong understanding of the cost tradeoffs between different types of incentives and different ownership models.

Green Choice Solar (GCS) makes an excellent point about PBI legacy costs, which are transparent to customers through the RES adjustor charge on their bill, but those substantial legacy costs from APS ownership costs are hidden in the base rates. In addition GCS echoes the need for clear costing analysis when it identifies that utility PPAs obligate ratepayers over the full asset depreciation cycle of up to a 30 year period but ratepayer obligations for 3<sup>rd</sup> party systems end as soon as incentive payments stop.

## **SCHOOLS AND GOVERNMENT PROGRAM**

### **Original 2011 to 2013 program**

APS stated that the objectives of its APS Schools and Government program was to provide solar only for poor and rural school districts that could not otherwise acquire solar from a third party provider. Despite testimony from third party providers, that they can provide financing for all Arizona schools, the Commission granted APS the limited ability to own certain DG assets and serve the poorest of poor schools. AriSEIA encourages the Commission to investigate how APS has implemented this program over the last year and particularly to ask questions regarding APS' aggressive marketing and how it has used its protected monopoly position to compete with the free market. We encourage the Commission in particular to investigate APS' marketing strategy and execution, and ask which schools APS solicited; if those schools had viable third party options for DG; if there was a real attempt to procure viable third party proposals through a RFP process as required prior to APS ownership; and request the installed costs of any finished installations. There should be a review of the existing program with an eye toward making mid-course corrections particularly in light of APS's proposal for a \$65.8 M expansion of the original program and to add a new 25 MW program which is proposed to be exclusively owned by APS.

The original APS Schools and Government Program has the following opportunities for improvement:

- 1) APS ownership portion is not nearly as focused on poor school districts as the third party owned systems and there is no requirement for schools to have previously implemented energy

efficiency programs or other solar technologies as is required for third party owned systems. As shown below over 60% of school districts qualify for APS ownership based on the participation in the 'Free and Reduced Lunch' program criteria. In addition over 70% of school districts qualify for APS ownership under the 'Available Bonding' capacity per student criteria. Although not shown, in fact almost all the schools that qualify for APS ownership under the Free Lunch criteria also qualify under the Available Bonding capacity criteria. Based on this information, approximately 50% of Arizona schools will qualify for APS ownership and since these awards are given on a first come first serve basis there is just as much likelihood an incentive will go to a relatively non-disadvantaged school as it is to go to a significantly disadvantaged school. On the other hand since the third party ownership portion of the schools and government program is based on highly competitive selection criteria, only the neediest schools receive funding.

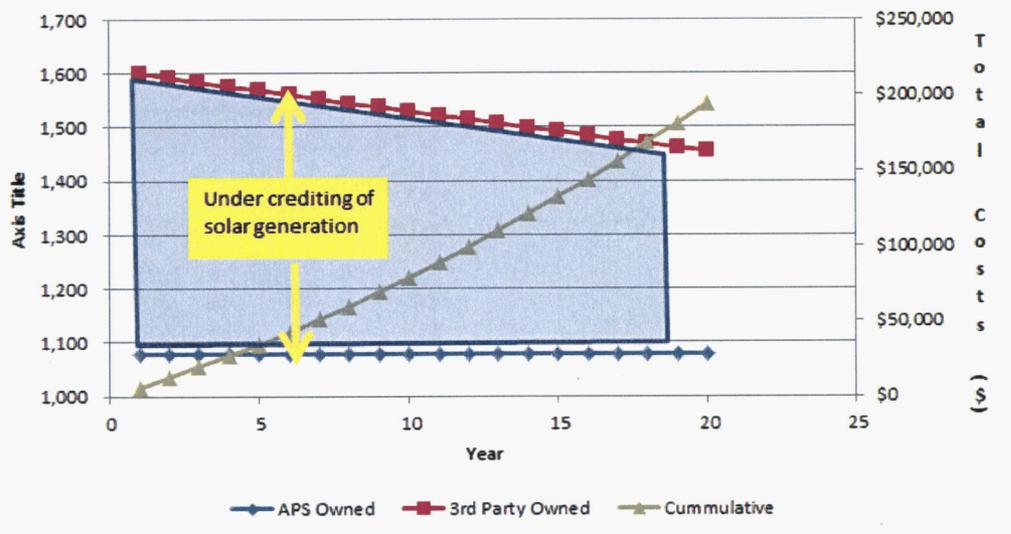
Free Lunch (%)	% of Total		Available Capacity/Student	% of Total	
80-100	26.4%	OK APS Own	0 to 4000	57.0%	OK APS Own
60-80	33.9%		4001 to 8000	15.7%	
40-60	27.3%		8001 to 10,000	5.0%	
20-40	10.7%		10,001 to 15,000	7.4%	
0-20	1.7%		> 15,000	14.9%	

- 2) A second issue with the current program is that in the APS owned program schools only receive 1080 kWh-AC/KW-DC per year credit for the solar that is generated on their facility. In fact it is expected that about 1600 kWh/kW will be generated. This difference results in schools paying over \$200,000 more for their electricity over the 20 year term of the contract than they would pay under similar conditions in a third party owned system.<sup>5</sup> This situation is shown graphical below

<sup>5</sup> Rate Rider schedule Schools and Government Solar Program

3) A third issue with the current program is that we believe APS has acted as if the schools are not required to get a competitive bid for their system. The current program requires schools to get a 'proposal' from a third party and while the RFP process is the way that schools normally acquire bids for this type of purchase, APS has apparently encouraged schools to do far less investigation than was intended. On APS's web site schools are only requested to 'speak with a solar developer' and this interpretation of the "proposal" requirement renders it nearly meaningless. Clearly, this is not in line with standard school procurement guidelines and provides almost no assurance the school has received a competitive bid from viable providers by which to compare APS's offer.

**Lost Credit and Total Higher School Costs 500 kW System**



There are several additional significant concerns about the current APS program that should be vetted before APS is allowed to modify its existing program. This includes an audit of its current activities under the 2011 RES Implementation Plan to verify the accuracy and validity of its claims, given the objections voiced by various industry stakeholders.

**SECURITY DEPOSITS FOR PERFORMANCE BASED INCENTIVE PROJECTS**

AriSEIA is concerned that the newly proposed APS deposit program for performance based incentive projects (ref. page 8) will have a substantial chilling effect on potential projects, especially in third party owned systems, as the deposit requirements are too great and too soon after contract award.

Background – APS proposes that a deposit of five (5) percent of the lifetime incentives requested for a project, with no cap, and payable within seven days after award. For projects less than 200 kW AC (middle category) this deposit could be as high as \$40,000 for a fixed system requesting a 20-year incentive of \$0.10 per kWh. In the case of a maximum 2 MW system, this would amount to \$330,000. The deposits are approximately 4% of the capital cost of a system and could be held by APS for a year or longer, adding substantial interest costs to projects.

Recognizing that there have been APS performance-based incentive auctions in the past where only 25% of the requests were awarded, there will be substantial reluctance on the part of customers to invest time and money in projects until they have been notified of a successful bid. This is a substantial difference from first-come-first-served programs where customers know they are very likely to secure an incentive if funds are still available. These investments include:

1. Perform a structural roof evaluation to determine if there is sufficient weight bearing capacity to install the added weight of a solar system
2. Perform a legal analysis of final contract language
3. Perform electrical engineering assessment of service equipment for suitability for interconnecting a solar system
4. Prepare and submit a loan package to a lender
5. Close the funding for a power purchase agreement, whose credit committee needs all of the above steps completed before funds can be released

The large deposit amounts will be impractical for most developers or customers who do not have approved financing in place, can have a significant impact on cash flow or reserves, and in the case of solar financiers who fund many projects per year, reduces the amount of capital available for projects overall with the added risk of loss of the deposit should some unforeseen event or Act of God cause the project to fail. This will prove chilling for most projects in the school and government markets as well as for other projects depending on lenders.

## RECOMMENDATIONS

AriSEIA recommends that the following actions be taken with regard to these three programs:

### RESIDENTIAL

- 1) Allocate \$40 million to the residential sector. Any MW's that could be considered over compliance in the REST program assign those to the Settlement Agreement requirements. This will allow for continued continuity in the market.
- 2) Require signed contracts for Residential PV applications made by APS customer.
- 3) Allow APS to accept incentive applications after October 1 to reserved in Q1 of the following year if the current year budget is completely allocated.

### NON-RESIDENTIAL DE AND SCHOOLS AND GOVERNMENT PROGRAM

- 1) Expansion of Schools and Government Program – APS Ownership: The objective of providing solar to impoverished school districts is better served through the highly competitive third party ownership portion of the SGSP than the 'most schools qualify first come first serve' APS ownership model. In addition AriSEIA questions APS's claim it is less expensive than third party. Therefore it is recommended to reject the proposal to have an additional 25 MW of an expanded SGSP owned by APS. In addition it is recommended APS ownership levels of new systems established during the 2011 SGSP be reduced to 0% from 25% for the same reasons.
- 2) Retention of original SGSP incentive pricing for 2012: Given the highly competitive nature of the SGSP third party ownership program, the neediest schools targeted by the Schools and Government program depend on it for successful project funding. Often these schools have needs for smaller systems (< 500 kW) which result in higher costs for PPA providers. Therefore it is critical to maintain the original incentive levels of \$0.145 per kilowatt hour for 15 years and \$0.132 for 20-year terms.
- 3) Lifetime Funding Reallocation: Reallocate a significant portion of the proposed \$65.8M expansion in lifetime funding of the 2012 SGSP performance based incentives to the general non-residential DE performance based incentive program. This is a more competitive program

that provides greater value for rate payers yet still is a major source of incentives for school and government projects while allowing other customer sectors to participate.

- 4) Non-residential DE and the 300 MW of added 2009 rate case settlement capacity needed: The REST principles of a 30% distributed energy share imply that 100 MW should be customer owned. As indicated above, the utility ownership of 150 MW should be either non DE and/or added to the remaining 50 MW of third party owned generation.

#### DEPOSITS FOR PERFORMANCE BASED INCENTIVE PROGRAM

Recommendation - AriSEIA recognizes the need for an appropriate deposit requirement. The deposit due date should allow sufficient time for customers to perform initial engineering studies after knowing they have secured an award. A two stage deposit program can more appropriately reduce the dropout rate of projects by creating sufficient investment early enough to prevent frivolous requests from customers who are not ready to proceed with projects, yet allow time for lending activities necessary to raise more substantial deposits and project funds. We propose that the commission adopt the following program:

1. An initial deposit is required for performance based incentive projects in the amount of \$3,000.00 for systems 200 kW AC and under, \$6,000 for systems greater than 200 kW AC and less than 500 kW AC, and \$10,000.00 for systems over 500 kW AC to the 2 MW limit. This deposit is due 30 days after APS notifies the customer of the incentive award. APS will continue to make new awards to replace forfeited awards until the category's next respective auction, and then roll unused funding into the next period.
2. A second deposit of two percent of the lifetime incentive funding requested shall be required. This deposit is due 120 days after notification of award. In lieu of a cash payment, customers may submit bonds or letters of credit for the corresponding amounts. APS will continue to make new awards from the most recent auction within the funding category to replace forfeited awards until two weeks before the category's next respective auction, and then roll unused funding into the next period.
3. Deposits may be submitted on behalf of APS customers by installers, dealers or other parties.
4. The current progress milestone requirement at 90 days shall be extended to 120 days, coinciding with the second deposit due date and 120 day milestone.