ORIGINAL

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

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

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

THE SOLAR ALLIANCE'S PRELMINARY COMMENTS ON APS 2012 RES PLAN

The Solar Alliance ("Solar Alliance"), by its counsel undersigned, hereby offers its preliminary comments on Arizona Public Service Company's ("APS") 2012 Renewable Energy Standard Implementation Plan ("RES Plan" or "Plan") filed on July 1, 2011, attached hereto.

Dated this 27th day of July, 2011.

RIDENOUR, HIENTON, & LEWIS, P.L.L.C.

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The Solar Alliance's Preliminary Comments on APS 2012 RES Plan

Preface

The Solar Alliance[1] hereby responds 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.

The Solar Alliance comprises 33 of the largest photovoltaic (PV) manufacturers, financiers, integrators and installers in the U.S., of whom five have opened offices in Arizona in anticipation of the RES-driven solar market growth. The Solar Alliance has participated in various dockets regarding implementation of the Commission's Renewable Energy Standard (RES) Rules with the intent of ensuring that overarching polices as well as implementation plans are crafted in a manner that spurs new development of solar facilities, eradicates unnecessary barriers to facilities coming on line, and provides such facilities with a rate for their power which truly reflects its underlying value to the utility as well as the state. With those goals in mind, the Solar Alliance offers the following preliminary comments on APS' proposed RES Plan.

Overall, the RES Plan will enhance Arizona's energy supply diversity and energy security through the continued deployment of clean energy. Although the annual budgets may appear large, this up-front investment will reap the State many returns over the coming decade in the form of hedging against rising energy costs by locking in fixed energy costs for ratepayers; siting generation directly where it is needed to relieve stress and losses on the power grid; reducing water use associated with energy generation; reducing SOx, NOx, and other emissions; and attracting new investment and jobs to the State.

The Solar Alliance applauds APS for advancing a plan that lays out options

[1] The comments contained in this filing represent the position of the Solar Alliance as an organization, but not

exceeding minimum compliance with the State's renewable procurement goals. The diverse offering of solar incentive programs laid out in the RES Plan demonstrates APS' commitment to advancing all segments of the solar market in Arizona. Member companies of the Solar Alliance look forward to partnering with APS to ensure that it over-complies as planned, that the solar programs offered are successful, and that solar is quickly and cost-effectively deployed.

However, even given these laudable goals, the RES Plan is bedeviled by confusing data on progress and costs, despite its hefty 130-page girth. Unfortunately, APS reports, workshop presentations, website data reports, and other documents are repeatedly inconsistent on claims of actual installations and remaining procurement needs. Even the RES Plan presents internally inconsistent data as described below. Efforts throughout 2011 to reach out to APS to clarify these questions have had little success (see the Solar Alliance's May 27, 2011 letter to APS, attached as Exhibit A). The following comments delve into some of these areas of confusion and lay out a specific actionable recommendation for the Commission to pursue as it considers the RES Plan.

Recommendation: The Commission should hold an Open Meeting in August to review key data questions that underlie its RES Plan. To ensure that the meeting is productive, the Commission should require APS to address the following concerns prior to the Open Meeting and submit written responses to all intervening parties seven business days before the Open Meeting. Before the Solar Alliance and presumably other stakeholders can make specific recommendations on the proposed plan, APS should be required to provide the following information:

A. Clearly Demonstrate Compliance for 2011 – Fix Inconsistencies in Data

The accuracy of APS's assertion that they are in full compliance with their 2011 goals is questionable for three primary reasons: 1) highly varied reported data; 2)

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necessarily the views of any particular member with respect to any issue.

counting of applications and demand before they materialize; and 3) extraordinary levels of cancellations. In the RES Rules, the Commission has wisely constructed a competitive renewable program among 10 generation technologies in which the market is to compete. However, the market is not free to compete in the absence of clear market data. (See Appendix 1 for detailed information on this request).

B. Break out Program Costs and Benefits from Proposed Options

To fulfill its 300 MW gap arising out of the 2009 Settlement Agreement renewable requirement, APS has bundled together a set of distributed generation and wholesale options, as well as private and utility ownership options, into seemingly simple pre-packaged options. This bundling approach obscures costs and ratepayer impacts and is not appropriate for a thorough review by stakeholders or the Commission. The bundling of program components masks costs, particularly on the utility-owned programs, and prevents a thorough consideration of options. What would the cost impacts be, for example, for a platform of 220 MW of private wholesale purchased power agreements (PPAs), 30 MW of residential incentives, and 50 MW of commercial DE distributed energy (DE) incentives, with no utility-owned generation? It is essential that APS present this data in such a way that Commissioners and stakeholders are able to draw their own conclusions regarding an appropriate mix of program elements.

C. Clarity Needed on Monthly Rate Payer Impact Estimates

APS's stated budget costs for all of its proposed Option packages may also be unnecessarily high, since cancellations from current 2011 applications would be reprogrammed at lower incentive rates, thereby saving money from the 2012 budget. APS states that "the three proposed budget options include these on-going commitments, as well as varying levels of program expansion, resulting in total budgets that range from $129.2 million to $151.5 million. This would result in an increase in the range of $1.38 per month to $2.36 per month to the current residential RES surcharge cap." The Solar Alliance cannot find these results in the RES Plan's subcomponent costs. Moreover, if

current high percentage rates of withdrawals and cancellations in 2012 continue, the RES surcharge could be far less. Costs could potentially be even lower if the Option packages were unbundled and revealed cost savings from unnecessarily high-cost initiatives.

D. Substantiate Claim that Utility-Owned Assets Are More Cost-Effective than Private Sector Installations

In general, the Solar Alliance supports limited utility ownership of solar assets where cost-effective and fulfilling a particular niche value to ratepayers. However, in this plan, APS has not proven the merit of, nor ratepayer savings for, expanding its utility-owned solar generation (UOG). The Commission should be aware that APS's request contradicts other U.S. utility movements to decrease utility-owned solar generation in recognition that third-party owned solar resources are more cost-effective. The Solar Alliance strongly urges the Commission to require APS to provide real data backing up its claims that utility-ownership is a 'better deal' for rate payers. Solar Alliance is prepared to have a robust conversation on this topic when an Open Meeting is called on this matter. (See Appendix 2 for more for detailed information on this request).

E. Clarify Aspects of the Third-Party Schools and Government Program

It is unclear from the RES Plan whether APS is proposing new funding for the third-party portion of the program or whether it represents the amount of money saved by the increased volumes engendered by the reduced incentive levels. APS states "[t]he third-party incentive offerings for the 2011 Solar for Schools and Government Program will be expanded to offer an additional $65.8 million in lifetime commitments for PV and solar thermal applications, as well as $562,500 in upfront incentives for solar daylighting installations (Exhibit D)." If this represents new funding, APS should clarify how much that represents in 2012 and how many MWs will be added.

Next, APS proposes to pare down Schools and Government incentives due to high demand; however, this is misleading. The truth is that the current program is small and

only a few school and government projects win awards each year. This suggests the need for more capacity in the program, not lower incentives.

Finally, as stated previously, the Solar Alliance are very concerned that APS is misrepresenting the costs and benefits of the third-party owned portion of the program against the utility owned portion. Although APS, as the administrator of this program (which itself is within the utility's monopoly franchise territory) can review third-party bids against its own bids, the industry is not allowed to review what APS is offering against bids from the private sector. Stakeholders have access to APS tariff prices for participating schools, but we have heard from schools that APS is offering bundled packages with energy efficiency and other services (such as incentives for daylighting modifications), such that the solar providers cannot compete on equal footing. Given this, comparisons of the cost competitiveness of APS and third party providers are not an apples-to-apples comparison.

F. Justify Meter Installation Proposal

APS is proposing to install and monitor production meters on all residential and small commercial systems that have received upfront incentives to date. The Solar Alliance is concerned about the value of this proposal given the lack of justification contained within the RES Plan and the scale of failure or error as compared to larger projects. We are also unclear as to who would bear the cost of retroactively installing these meters. What is the justification for this potentially expensive plan and who will fund the installations of the meters?

G. Justify Certain Marketing, Research and Developemtn (R&D), and Administrative Programs

1) Solar Coaches: Given that there is overwhelming demand for both residential and non-residential incentives, APS should provide justification for continuing to spend ratepayer dollars on the Solar Coaches program. Just as in other industries, the industry

can and should be marketing the incentive program and working with customers to compare bids. More rigorous security deposits and deadlines should help consumers weed out bad bids.

2) Integrated Pilot Program: APS should also justify why it is proposing to take $1.5M from the REST budget to fund a 2-year integrated pilot program that explores 'coordinated integration' of smart grid technologies, customer offerings, energy efficiency, DE and demand response. This appears to pass off normal distribution grid maintenance onto renewable program incentive budgets. Given a lack of relevance of the Smart Home technologies to renewable DE installations, the money for any such pilot should come from another source.

3) Misc. R&D Funds: APS should justify its request to allocate $1.8 million for "continued research and study of renewable resources, with the focus on ways to enhance and accelerate the development, deployment, commercialization and utilization of renewable resources for the benefit of APS customers." It is unclear what this offers as benefit to ratepayers and unclear why the R&D should be funded from these resources and not from APS shareholder resources. Moreover, APS should provide improved reporting on what it has achieved from past authorizations for renewable R&D.

To ensure effective deployment or ratepayer funds, whenever an investor-owned utility seeks to use RES funding for studies and R&D, the Commission should require appropriately scoped stakeholder review process. The Solar Alliance suggests an open and collaborative stakeholder engagement process via a Technical Review Committee, to include at least one representative from the Solar Alliance.

Conclusion

The Solar Alliance thanks the Commission in advance for requiring APS to provide needed clarity on several aspects of its RES Plan. The Solar Alliance, along with many other stakeholders, looks forward to participating in an Open Meeting to go over

stakeholders' concerns and hear APS' responses.

Respectfully Submitted on the 27th day of July, 2011.

Appendix 1

Clearly Demonstrate Compliance for 2011 – Fix Inconsistencies in Data

APS has a worrying track record of presenting significantly inconsistent progress data. APS progress must be substantially clarified before stakeholders can properly review this 2012 proposal. APS' data on installations and demand varies across documents, from the 2010 Progress Report, its Spring 2011 RES workshop presentations, the Arizona Goes Solar website, and other major reporting documents.

In just one set of examples from this plan, Exhibit A of the filing shows a number of discrepancies:

- Expected Portfolio Year-End 2011 (p. 10): third-party financed projects are listed at 330 MW, though a reader would count 340 MW, with 227 MW from pre-2011 renewable projects, and 113 MW from three 2011 projects.
- APS states that they will have over 390 MW of renewables in operation at year-end 2011 on p. 19, compared to 381 MW on p. 10.
- Existing Commitments Expected to Be in Operation Between 2012 and 2013 (p. 13): 3rd-party financed projects are listed at 300 MW, but the subsequent project list indicates 268 MW (Solana and Small Generator Standard Offer projects).
- Expected Portfolio Year-End 2013 (p. 13): 3rd-party financed projects listed at 630 MW, but the combination of listed projects in portfolio at year-end 2011 (340 MW?) and in operation between 2012-13 (268 MW?) equals 608 MW. APS then states that 638 MW of 3rd-party PPAs (p. 15) are in contract and expected to be in service by year-end 2016.

In another example, these two statements from the RES Plan appear self-contradictory:

- "By year end 2011, APS expects to have approximately 381 MW of RG in operation. While the Company will continue to bring projects online between 2012 and 2015, no new additional RG procurement is needed in order to achieve RES compliance in 2012 or during this planning period. However, APS *will need to continue to develop additional RG between 2012 and 2015 to achieve the requirements* set forth in the Company's Settlement, as described in Section V (italics added) (Executive Summary, p.2)."
- "APS expects to exceed the non-residential DE compliance target in 2012 and for all five years covered by this Plan ... Therefore, *no additional non-residential DE installations are needed* for APS to achieve compliance with its non-residential program *in 2012 or any other year of this Plan* (italics added) (p.21)."

Similarly, Decision No. 71958 requires APS to report to Staff, on a confidential basis, the annual KWh output of the Freeport-McMoran solar installation and the amount deposited into the RES fund as a result of this transaction for the relevant reporting period. APS was to overcomply on 2011 DE MWh equal to the project in return for its unique approval to draw from DE budgets. APS' 2010 progress report states that it will not provide this information until after the system is in service, or April 2012. Stakeholders cannot gauge APS' over compliance in 2011 if APS will not report the amount until later in 2012.[2]

The Commission and Stakeholders need clearer reporting to make sure APS subtracts unbuilt projects, from when it began counting compliance (at cash on delivery (COD) or at application acceptance), and how they measure compliance (in real production or in nameplate capacity).

Numerous Extensions

APS's 2010 report states that the utility grants PBI extensions on a strict case by case basis. At the same time, APS states in its April 15, 2011 response letter to Commissioner Newman that 25% (47 projects) of all reserved PBI non-residential projects are requesting an extension. To look at it another way, approximately 90% of the 55 projects were still not on-line after the 270 day mark for which extension have been granted. The extensions provided to these projects tie up the queue and prevent new projects which are ready to go, from moving forward in the reservation process. The lack of information on when these extensions are due also makes it difficult to track the utility's expected achievement for the year.

Moreover, APS's data on extensions do not match between the April 1, 2011 filing on its 2010 Plan and its response to Commissioner Newman. In the 2010 report, APS shows 10 extended reservations for pre-2010 projects, and no extended reservations for 2010 projects. In the April 15 response, APS states that it has extended 47 PBI projects.

Extraordinary Rates of Cancellations

The Solar Alliance has asked APS several times to document the number of cancellations by number of applications and MW, differentiated by residential and non-residential DE, and most importantly with a date of application attached to each record. The cancellation data could be a source of the significant amount of confusion between applications and actual achievements. APS staff repeatedly responds verbally to the effect that the cancellations are from 2009 projects. Stakeholders cannot know this to be true without seeing the facts.

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[2] APS 2010 Renewable Energy Compliance Report Summary, p. 23.

As an example, APS revealed an extraordinary rate of cancellations through the first four months of 2011 during its June 16, 2011 RES workshop. Slide 16 shows the following data:

2011 Standard Non-Res Program

Updated scores and amount of funds actually reserved will be updated on aps.com after each nomination period.

- Preserves integrity of the program.
- Delivers best value to rate payers.

2011 Incentive Cutoff Scoring:

	Jan/Feb	Mar/Apr	May/Jun	Jul/Aug	Sep/Oct	Nov/Dec
UFI	465	401	--------	--------	--------	--------
Original Budget	*$333k*	*$333k*	*$333k*	*$333k*	*$333k*	*$333k*
Actual Funds Reserved	*$900k*	*$642k*	--------	--------	--------	--------
Medium PBI	1260	1090	--------	--------	--------	--------
Original Budget	$3 M	$3M	$3M	$3M	$3M	$3M
Actual Funds Reserved	*$5.6 M*	*$3.1 M*	--------	--------	--------	--------
Large PBI	1003			--------		
Original Budget	$27.5M			$27.5M		
Actual Funds Reserved	*$52 M*			--------		

When questioned why the Actual Funds Reserved line items were in some cases 200-300% of the original budget, APS responded that the figures represented returned funds from cancellations, rejections, and withdrawals. APS then argued that these represented 2009 projects, but one cannot be certain of this without seeing APS's records of cancelled projects by date of application and so on.

Given the extraordinary scope of recent cancellations, the Solar Alliance questions whether stakeholders can rely on APS projections of 2011 and 2012 compliance. Even though cancelled project funds are returned to the budget, the high cancellations, combined with long extensions, could mean that APS is not in compliance until 2014 or later. Before stakeholders and the Commission can review any of APS's RES Plan, The Commission should require APS to provide a full and thorough review of 2010 and 2011

achievements, applications, reservations, extensions, and cancellations, organized by date, and split out per program.

Appendix 2

Substantiate Claim that Utility-Owned Assets Are More Cost-Effective than Private Sector Installations

APS's presentation of its three options and each option's projected MW volumes and costs intimate that larger projects are cheaper and that third-party owned projects cost more per MW. APS provides no comparison of apples-to-apples component costs for utility-owned and third-party-owned systems. Moreover, if larger projects are indeed cheaper and cost is of paramount concern, why has APS removed larger non-residential DE from the third-party incentives in Option 2, and minimized it in Option 3?

Although APS has provided comparative budget impacts for the three third-party options in its workshops throughout the Spring, it failed to provide comparable costs for each of its proposed utility-owned programs. APS should provide these costs broken out in a format similar to the third-party costs so that stakeholders and Commissioners may compare them against one another. APS should also outline how they calculate their UOG cost-effectiveness compared to the costs of third-party providers.

The industry also finds fault with APS' position that PPAs and performance-based incentives put a unique 20-year burden on the ratepayer. The reality is that the utility pays for almost all other generation assets for decades but the costs are ratebased (so the utility can earn a rate of return on the assets) and are therefore less visible.

APS states in the RES Plan, "The cost to customers as a whole is significantly less for utility-owned projects over the life of a renewable energy asset, as compared with the cost of purchased power." Stakeholders need to see the justification for a broad statement such as this one. APS argues that "this is because all APS customers benefit from low cost energy production that occurs beyond the expected 30-year life of the facility. This does not occur under a PPA procurement model, where the future cost of continuing to

purchase energy through a renegotiation of contract terms or executing new contracts for energy generated by other facilities is an unknown variable." Theoretically, though, the opposite of this statement is just as true (that the PPA rate could be less than the original price). Additionally, third-party companies would be willing to sign 30-year contracts if they were offered by APS.

APS intimates, but does not prove, that they can attain better financing. Indeed, APS purchases facilities once they reach COD, which means that the third-party developers carry all financing risk and also that any final rates that APS pays are exactly equal to third-party financing rates. To properly review this, APS should provide data on how many of the AZ Sun projects were purchased at COD and how many were pre-financed by APS.

APS states that "Maturing renewable technologies, challenging financial markets and evolving tax laws have combined to allow the Company to pass along the advantages of owning and operating renewable facilities to its customers." In this, APS appears to admit that private sector developers do not have an even playing field because APS can own and finance the project. Following this through to its logical conclusion underscores the fact that a monopoly utility is 'competing' with companies that are participating in a free market. It is precisely the competition among these companies that leads to reduction in costs over the long-term versus the lack of incentive on the part of a monopoly to lower costs.

Stakeholders cannot review a proposal to expand utility-owned generation without better performance and cost data of existing and proposed installations. The Commission should approve additional UOG until it can carefully scrutinize the performance and cost of these ratepayer-funded assets.

APS' Interest to Expand Utility-Owned Solar Seems to Contradict Other Utility Trends

APS' interest to expand utility-owned solar is in direct contrast to a California utility with the most experience on utility-owned solar, Southern California Edison (SCE). In February 2011, SCE petitioned to shift half its utility-owned program to private sector PPAs, essentially arguing that they are unable to compete with the private sector on costs and are disinterested in ensuring rooftop integrity.

When SCE proposed a 250 MW program of utility-owned generation (UOG) in 2008, it calculated its PV UOG program costs at a levelized cost of 26 ¢/kWh. In January 31, 2001, two weeks before petitioning to shift 125 MW of its UOG program to PPA solicitations, SCE filed 250 MW of 20-MW PV PPA contracts that were below the state-determined "avoided cost" price referent for combined cycle gas turbine energy (then 14-15 ¢/kWh including a time-of-generation multiplier). In filing the wholesale PPA contracts for approval, SCE stated, "Solar PV is a mature and proven renewable energy technology that has been supplying a substantial amount of renewable energy to SCE and other California load-serving entities ("LSEs") for several years. All RSC Contracts are priced below the approved 2009 market price referents ("MPRs"), the most current MPRs available when the offers for the RSC Contracts were received."[3]

In petitioning regulators to approve this shift towards PPA contracts, SCE stated, "SCE is the nation's leader in purchasing renewable energy on behalf of its customers. In fact, in 2009, SCE purchased roughly 80% of all solar power generated in the United States. From this experience, SCE has witnessed firsthand the benefits that can accrue to customers because of greater competition."

The utility went on to state, "SCE believes that the revisions proposed in this Petition will significantly reduce the costs of the Solar PV Program going forward... The Commission has recognized that SCE's Solar PV Program and its other procurement

[3] Southern California Edison Advice Letter 2547-E, "Submission of Contracts for Procurement of Renewable Energy Resulting from Renewables Standard Contracts Program." Filed with the California Public Utilities

efforts "suggest[] that the market for smaller scale projects appears robust with a significant number of competing sellers... SCE is strongly committed to the systematic development of PV generation via the knowledge transfer of lessons learned in its implementation of the utility-owned generation ("UOG") portion of the Solar PV Program. In a reduced-size UOG Program of not to exceed 125 megawatts ("MW"), SCE can and will continue with its knowledge transfer activities... Given that the Commission's objectives have been or can be met at a reduced cost through the revised Solar PV Program, the granting of SCE's Petition is reasonable, justified, and in the public interest."[4]

Finally, SCE also

argued that the economic downturn had reduced the amount of newer, suitable rooftops, which, coupled with the robust private sector competition, left the utility less interested in ensuring appropriate structural or roofing work for UOG systems. Given these findings on wholesale solar PV, the Solar Alliance questions APS' ability to compete on costs with private developers in any market segment.

The Solar Alliance is open to having a detailed conversation on this topic at an Open Meeting devoted to this subject. The Solar Alliance can go into greater depth on this subject at that time, but as a closing point, we remind Commissioners that it is important to note the role that normalization accounting rules play in the financing of utility owned solar assets. Utilities must levelize the benefits of the Federal ITC over a period of thirty years in order to benefit all customers over the life of the project (so as not to favor current ratepayers at the expense of future ratepayers). Third party providers,

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Commission on January 31, 2011.

[4] Southern California Edison, Southern California Edison Company's (U 338-E) Petition For Modification of Decision 09-06-049. Filed with the California Public Utilities Commission on February 11, 2011.

however, are able to capture tax benefits immediately and pass them on to ratepayers, thereby providing a lower levelized cost of energy to utility customers.

Between the Federal ITC and Accelerated Depreciation (MACRS), approximately 45% of total project cost can be turned into a reduction in taxes paid. As a very simple example: If a project costs $100 million, the value of the Investment Tax Credit is $30 million if an owner can take it all in Year 1, which a private investor can do. Therefore a PPA rate would be based on a total project cost of $70 million. However, that same $30 million tax credit is only worth about $15 million to a utility since they have to spread that benefit over the life of the project. Therefore the utility's rate impact would be based on a total project cost of $85 million. Hence, a third-party financed system is cheaper.[5]

[5] Renewable Energy World. "Utility-Owned Solar PV and the Renewable Energy Expansion Act of 2010." May 20, 2010. http://www.renewableenergyworld.com/rea/news/article/2010/05/utility-owned-solar-pv-and-the-renewable-energy-expansion-act-of-2010.

EXHIBIT A

The Solar Alliance

May 27, 2011

Mr. Eran Mahrer
Director, Renewable Energy
Arizona Public Service
MS: 9674; PO Box 53999
Phoenix, Arizona 85072-3999

Dear Mr. Mahrer;

On behalf of the Solar Alliance[i], we thank you for the opportunity to submit comments on the progress of Arizona Public Service (APS) in its 2010 and 2011 implementation of its Renewable Energy Standard (RES) plans, regarding the procurement of solar photovoltaic (PV) energy at the wholesale and Distributed Energy (DE) levels.

Overall, we laud APS's continued progress towards its RES obligations, its reporting of progress that has been made, and particularly the attempts to make the DE programs smoother and more predictable for the solar industry. APS has made a number of advances in the last year, particularly on residential distributed energy compliance, and has also improved on the public reporting of data.

At the same time, the Solar Alliance wishes to raise a number of issues to APS' attention. First among these are reporting practices. We believe that clearer reporting will mitigate unnecessary confusion between APS and program stakeholders. Clearer reporting would help solar installers better understand their chances to obtain an incentive and at what level that incentive is being offered. This would therefore assist in reducing the number of non-viable project applications to APS.

Another prominent issue for us is the substantial lack of compliance on customer-sided non-residential distributed energy, particularly in the Performance-Based Incentives (PBI) programs, where a security deposit or fee appears to be needed to prevent cancellations and non-viable projects.

Since we are still reviewing the many different forms of reporting in APS documents and reports, we may identify new issues to discuss later. We have reached out numerous times to discuss this issues, and we retain our hope that we can meet by phone or in-person to thoroughly discuss the questions.

Residential and Non-Residential Incentive Programs:

1. ***Reporting of Reserved Capacity vs. Actual Generation***

- On Slide 5 of the April 2011 stakeholder meeting presentation, APS reports the following compliance targets vs. actual generation below. We would like to note that 75,524 MWh of required DE generation appear to be missing. In addition, Table 1 of the 2010 report shows different data than the text of the same report which states that APS achieved only 60,444 MWh (44% of its non-residential DE compliance of a total 138,547 MWh obligation), further adding to our confusion. Also note that this information differs from other reporting further below where APS states that it has applications exceeding 2.5 times its DE requirements. Please clarify

exactly how many MWh of generation occurred in 2010, and how and when APS will make up for past shortfalls.

Year	2008	2009	2010
Overall DE RES Requirement (MWh)	50,580	84,520	138,547
Actual DE Generation (MWh)	17,324	49,386	131,413
Shortfall (MWh)	**33,256**	**35,134**	**7,134**

- APS's reports often bundles "applications" for incentives into "achievement" numbers. For example, APS stated in its 2010 report that APS customers and programs "installed and reserved 383,845 mWh of generation, about two and a half times the 2010 DE Compliance target". (At the same time, APS verbally relays that the cancellation rate is only 5%, which should mean that APS will either be significantly overbudget and overcompliance for 2010 or that APS will have significant cancellations due to lack of budget.) We request that reserved capacity not be reported as compliance capacity until those projects are constructed and in-service.

  For reporting going forward, the Solar Alliance suggests that APS must be sure to distinguish between actual generation and "reserved," "applied," "committed," "estimated projections," etc. This clearer breakout should also be tracked on www.arizonagoessolar.org and updated weekly. Furthermore, on the Arizona Goes Solar website, we ask that you include the following new elements:

  - Under the "installations" tab that exists on each IOU's section of the website, allow data to be downloaded/exported into an excel spreadsheet for easy tallying and sorting.
  - Under the "installations" tab that exists on each IOU's section of the website, include an additional column: Days until In-Service Deadline (counting down from 365 once the incentive is awarded)

  Moreover, we would like to see a separate chart that summarizes progress in each year, in the following format:

Year (starting with 2009)	MWh Generation Required for Residential DE Target	Expected MWh Generation from Approved Res. Reservations	Actual MWh Generation Online from Residential DE projects	MWH Generation Required for Non-Residential DE Target	Expected MWh Generation from Approved Non-Res. Reservations	Actual MWh Generation Online from Non-Residential DE projects

2. ***Breaking Out Compliance Per Year***

- We also question whether APS may be inappropriately bundling 2010 and 2011 numbers. For example, in the April 15, 2011 response to Commissioner Newman, Question #3, APS seems to be providing Q1 2011 data on Performance Based Incentive projects but including projects that must have been applied for, and reserved, in 2010, since the project durations began earlier than Q1 2011.
- Similarly, we believe that the 2010 compliance report is mixing 2011 funds into its residential compliance figures. We believe that APS was directed by the Arizona Corporation Commission (ACC) to fund the residential backlog in Q4 2010 with a portion of the 2011 budget. We seek 2010 compliance figures that only count projects using 2010 dollars. APS should provide separate data on 2011 residential reservation and compliance progress, per the above format.

3. ***Meeting Non-Residential Capacity Targets***

- APS is obligated to achieve a 50-50 split between residential and non-residential DE, as measured by MWh. However, APS did not achieve this division for non-residential DE in 2010. Please explain why.
- *PBI security deposit:* Please explain why APS did not develop and implement a security deposit/application fee as directed by the ACC. We believe that the lack of a deposit or fee is a substantial reason for the cancellations in non-residential distributed energy projects. A reasonable deposit or fee would help "weed out" nonviable projects of the many PBI applications that APS has received. In its January 2011 response to the Commission on the issue, APS stated that it was determining an approach for its 2012 filing on July 1, 2011. Can APS provide more information at this time on the methodology, use for the resulting pool of funds, and use of the funds should the project eventually cancel?
- APS's 2010 report states that the utility grants PBI extensions on a strict case by case basis. At the same time, APS states in its response letter to Commissioner Newman that 25% (47 projects) of all reserved PBI non-residential projects are requesting an extension. To look at it another way, approximately 90% of the 55 projects are still not on-line after the 270 day mark for which extension have been granted. The extensions provided to these projects tie up the queue and prevent new projects which are ready to go, from moving forward in the reservation process. The lack of information on when these extensions are due also makes it difficult to track the utility's expected demand for the year.

  Moreover, APS's data on extensions do not match between the April 1, 2011 filing of the 2010 plan and the April 15, 2011 response to Commissioner Newman. In the 2010 report, APS shows 10 extended reservations for pre-2010 projects, and no extended reservations for 2010 projects. In the April 15 response, APS states that it has extended 47 PBI projects.

  The Solar Alliance seeks the following information to clarify available funding:

  - Please provide one set of consistent data on the projects that were extended and information on the reasons for extensions per project.
  - Please specify the length of the extension granted per project.
  - Please clarify what APS's final due date is whereby failure to complete results in dropping the project.

Finally, APS should add another column in its chart after the 270+ day period to specify another period (e.g., 270-330 days, and 330+ days) to track the laggard projects.

4. ***Accounting for Wholesale DE Projects***

- In April 2011, the ACC approved two wholesale DE projects from the APS April 2010 auction. Is APS going to count those projects in its 2010 progress, and if not, where will those projects be counted?
- APS assisted Freeport McMoran with installing 18 MW of solar through a creative Energy Contract Model. In its 2011 plan, APS stated that it intended to over procure DE at least by the amount of the Freeport mine project that used 2010 DE funds. Then-Commissioner Mayes' amendment would have directed APS to ask the ACC for more funds if projects were being denied as a result of having reached its obligations with Freeport included. Is APS going to need to request more funding to complete its stated intention to over comply on DE targets to an amount equal to the Freeport project?
- Further, Decision 71958 requires APS to report to staff, on a confidential basis, the annual KWh output of the Freeport solar installation and the amount deposited into the RES fund as a result of this transaction for the relevant reporting period. APS' 2010 plan states that it will not provide this information until after the system is in service, or April 2012. APS had also pledged to over procure in the 2011 non-residential DE program by the amount of the Freeport project. Please clarify how stakeholders will be able to gauge APS' over compliance in 2011 if APS will not report the amount until later in 2012.

5. ***Schools and Government Program***

- *Lack of Progress:* The 2010 report states that APS committed the entire $15 million Schools and Government budget but only installed 18% of the planned capacity (670 kW of 3.75 MW). Please explain why.
- *Full transparency of Utility-Owned Generation (UOG) costs:* Please provide the full, all-in cost of utility-owned installations on a per kW basis and then separately break out the cost of the equipment, labor, and administration costs from the other program costs for those systems. At present, we can only identify $227,000 of maintenance costs on those assets in Table 2. Providing this full spectrum of information will allow us to see an apples-to-apples comparison against the $8.2 million that APS identifies as the cost of third-party owned systems.
- *APS rate rider for APS Owned Schools:* We understand that APS plans to offer schools a new tariff arrangement when they participate in the APS owned portion of the Schools and Government Program. We request that the rate rider be presented clearly to Solar Alliance member companies so that we can better understand the economics of the offering APS is presenting to school customers.
- *Underperformance of UOG:* Why are the utility-owned projects expected to perform 5% less than the industry's residential installations? APS' 2010 report states that there is an expected total production of 6060 MWh from 3.75 MW of capacity. At the same time, the report also shows that the 100 meters placed on residential incentive recipients' systems are showing an average 1694 kWh/kW performance. At that rate, APS's utility-owned systems should be getting roughly 6353 MWh -- or more, given that residential roof tilt and orientations offer

limited flexibility and no opportunities for trackers compared to the flat roofs of schools and most public buildings. Please explain.

6. *Documenting Cancellations in the Programs*

- We encourage APS to document the number of cancellations by number of applications and MW, differentiated by residential and non-residential DE. This lack of distinction is the source of a significant amount of confusion between applications and actual achievements. Moreover, if only 18% of the schools and governments program plan has been installed in 2010, it raises the question whether APS is seeing significant cancellation rates in other areas of the program.

7. *General Administration of the Programs*

- *Staff:* How many Full Time Employees work on processing applications for the solar PV incentive program?
- *Interest:* Please relay how much interest accrues on the program annually, where it is held, and what happens to it at the end of each quarter or year.
- *Quarterly reports:* We believe that the ACC approved an amendment by former Chairwoman Mayes that requires APS to provide quarterly reports on unused funds, split by program dollars and administrative dollars. However, we cannot find this information in the 2010 RES plan discussion of quarterly reports nor on the web. The biweekly website updates provide some information on unused dollars, but this update is not split by administration and program dollars. Please help direct us to this quarterly report.

Wholesale Programs:

Small Generator Standard Offer Program

- *The 13 c/kWh LCOE bid cap*: What percentage of the April 5 bids came in under the LCOE bid cap?
- *PTC:* It appears that APS is asking for conferral of at least a portion of Arizona Production Tax Credits to APS as a part of the bid process for the Small Generation Standard Offer program. Since APS is solely buying output, it does not make sense that the utility should require conferral of PTCs. Please explain.
- *Range of bids:* We look forward to a full reporting of the results of the April 5 APS solicitation with the highest, lowest, and median bids. Please clarify when we can expect to see this.

AZ Sun Program

- Please provide a comparison of project costs on a per kW basis, with highest, lowest, and median prices for both UOG and Solar Service Agreements, with a break out of utility administration costs, labor, and equipment.

We realize that we are requesting a significant amount of detailed information regarding the residential and non-residential DE programs, and the wholesale program. However, we believe this information will help not only us understand the Arizona DE market better, but also assist APS in developing approaches that enhance opportunities for their customers to install more solar systems. Thank you for your cooperation in this matter. We are more than happy to discuss the contents of this letter with you.

Regards;

Carrie Cullen Hitt

President

Cc: Greg Bernosky, Regulatory and Planning Supervisor, Renewable Energy

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[i] The views expressed in this letter are those of the trade association and not necessarily those of any individual member company.