

NEW APPLICATION



0000154478

1 Melissa M. Krueger
2 Pinnacle West Capital Corporation
3 400 North 5th Street, MS 8695
4 Phoenix, Arizona 85004
5 Tel: (602) 250-3630
6 Fax: (602) 250-3393
7 E-Mail: Melissa.Krueger@pinnaclewest.com

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8 Attorney for Arizona Public Service Company

ORIGINAL

BEFORE THE ARIZONA CORPORATION COMMISSION

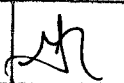
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JUL 1 2014

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E-01345A-14-0250

15 IN THE MATTER OF THE APPLICATION
16 OF ARIZONA PUBLIC SERVICE
17 COMPANY FOR APPROVAL OF ITS 2015
18 RENEWABLE ENERGY STANDARD
19 IMPLEMENTATION FOR RESET OF
20 RENEWABLE ENERGY ADJUSTOR

DOCKET NO.

APPLICATION FOR APPROVAL
OF 2015 RES IMPLEMENTATION
PLAN

21 The attached 2015 – 2019 Renewable Energy Standard (“RES”) Implementation
22 Plan (“2015 RES Plan” or “Plan”) continues APS’s commitment to the renewable
23 energy targets established by the RES as well as the Company’s obligations under its
24 2009 Rate Case Settlement (“2009 Settlement”). See Decision No. 71448 (Dec. 30,
25 2009). APS’s 2015 RES Plan requests funding for existing programs and commitments,
26 including the solar water heating incentive program approved in 2014. In addition, the
27 plan requests approval of a battery-solar PV integration research and development
28 program and, as requested by the Commission during the proceedings on the 2014 RES
Plan, proposes a modification to the monthly RES adjuster caps to address the concerns
of small and extra small commercial and industrial customers. The Plan seeks budget
approval in the total amount of approximately \$154 million for 2015, including
approximately \$124 million that will be collected through the RES adjuster in 2015.
The Plan also includes estimated RES budgets through 2019 as required.

1 APS submits its 2015 RES Plan (attached as Exhibit A) pursuant to A.A.C. R14-
2 2-1813 and in accordance with Staff's standardized reporting format developed pursuant
3 to Decision No. 72737 (Jan. 18, 2012). Also attached is a two-page summary of the
4 Plan (Exhibit B) and a PowerPoint presentation outlining highlights of the Plan (Exhibit
5 C) as required by Decision No. 72022 (Dec. 12, 2010).

6 **I. APS'S PLAN KEEPS THE COMPANY ON TRACK TO MEET ITS RES**
7 **AND SETTLEMENT COMPLIANCE OBLIGATIONS**

8 By the end of 2015 and consistent with its intent to make best efforts to fulfill the
9 RES and its 2009 Settlement obligations, APS projects it will have a total of
10 approximately 1250 MW of installed renewable capacity within its service territory,
11 including approximately 930 MW of solar capacity. Based upon currently installed DE
12 resources and commitments, APS is forecasting RES compliance with the non-
13 residential DE target through mid-2021 and residential DE target through 2016.¹

14 **II. APS'S PLAN CONTINUES AUTHORIZED PROGRAMS AND**
15 **COMMITMENTS**

16 APS plans to continue all existing authorized programs and commitments in
17 2015. Specifically, APS proposes to continue the solar water heating direct cash
18 incentive program that the Commission authorized in 2014. APS proposes continuing
19 this program with an incentive budget of \$500,000 for 2015. To date this program has
20 received 141 residential applications requesting incentives of approximately \$114,000.
21 No applications requesting commercial applications have been received.

22 APS also proposes to extend for one year its Green Choice Program and
23 associated Green Power Rate Schedules GPS-1, GPS-2 and GPS-3. Currently there are
24 approximately 2300 customers participating in these rate schedules and the program is
25 projected to collect \$1.7 million in 2015. The revenues generated from this program are
26

27
28 ¹ If APS owned the RECs generated by non-incented systems it would be in compliance with the residential DE target through 2019.

1 used to offset the amount of budget funds that need to be collected through the RES
2 adjustor.

3 APS will also be continuing deployment of two AZ Sun projects in 2015.
4 Development of the 10 MW project at Luke Air Force Base and the 10 MW project at
5 City of Phoenix is ongoing. Requests for proposals were recently issued for these
6 projects and it is anticipated that they will come online in 2015. In addition, on April
7 15, 2014, APS filed a request to move forward with a 20 MW AZ Sun project at APS's
8 Redhawk facility. These AZ Sun projects will help the Company ensure that it can meet
9 its 2009 Settlement obligations.

10 **III. PROPOSED NEW PROGRAMS**

11 **a. Battery-Solar PV Integration Program**

12 APS understands that successfully integrating a high penetration of intermittent
13 distributed renewable resources in its service territory over the long run will likely
14 include the adoption of energy storage in the form of battery technology. The Company
15 believes that battery technology may be a particularly important tool in helping APS
16 manage and mitigate the impact that DE solar PV systems will have on the operation of
17 an efficient grid. In response, the Company believes it is important to better understand
18 how battery storage can be used to maximize the benefits of DE solar PV systems.

19 The Plan seeks \$2 million to conduct a battery-solar PV integration
20 demonstration research program. Under this program, it is anticipated that APS would
21 purchase, install, monitor, and manage battery storage systems that would be integrated
22 into the APS distribution system. The project will increase APS's hands-on technical
23 capabilities and understanding of the impacts of storage, so that it is prepared to
24 integrate this evolving technology into the system in the future.

25 **IV. PROPOSAL TO MODIFY THE RES ADJUSTOR CATEGORIES**

26 In the 2014 Plan, the Commission expanded the REST customer categories from
27 three to five and approved new monthly payment caps for each category. Under the five
28 category approach, APS's customers were divided into categories based upon their rate

1 class, including residential, small commercial, medium commercial, large commercial
2 and industrial. The small commercial class includes both extra small and small classes.
3 Charges are applied based on kWh consumed, with an adjustor cap for each category.
4 Customers that receive a direct cash incentive are required to pay the average cap for the
5 relevant customer category. *See* Decision No. 73660 (Feb. 6, 2013).

6 During the 2014 Plan proceedings, the Commission directed APS to explore and
7 submit a proposal that would add a sixth customer category to address concerns
8 regarding small and extra small commercial and industrial customers. To address those
9 concerns APS proposes for Commission consideration a “bifurcated cap and floor
10 structure” that would apply only to small and extra small commercial and industrial
11 customers. Under this proposal, a small or extra small customer’s usage would be
12 evaluated each month to determine whether they fall into the extra small (20 kW or less
13 per month) or small category (between 21 and 100 kW per month). Extra Small
14 customers would pay a minimum charge of \$9.55 and the cents per kWh charge for each
15 kWh above 835 kWh, up to the cap for the Extra-Small/Small category. Small
16 customers would pay a higher minimum charge of \$46.93 and the cents per kWh charge
17 for every kWh above 4175 kWh up to the cap for the Extra-Small/Small category. APS
18 believes that this proposed methodology is consistent with the original intent of the
19 Commission that a customer who installs a renewable facility should pay into the RES
20 fund what they would have paid prior to the installation of the renewable (usually solar)
21 facility. Figure A on page 10 of the Plan compares the current five category
22 methodology to the proposed bifurcated floor and cap proposal. Figure A also provides
23 an illustration of how much the adjustor charge would be per category if the caps were
24 removed and customers were charged a straight \$/kWh charge based on their usage.

1 **V. APS'S PLAN REQUESTS A BUDGET OF APPROXIMATELY \$154**
2 **MILLION TO SUPPORT ON-GOING AND PROPOSED PROGRAMS**

3 **a. Proposed 2015 Budget**

4 APS's Plan requests a budget that will enable it to remain on track to meet the
5 RES and the Company's Settlement obligations, while moderating rate impacts. APS's
6 Plan requests a total 2015 RES budget of \$153.8 million in order to meet previously
7 authorized commitments, including PBI legacy payments, PPAs, the AZ Sun program,
8 among others, and the financial requirements of newly proposed programs. As part of
9 standard program management practice and to moderate the 2015 budget impact on
10 customers, APS intends to apply certain budget offsets that will reduce the amount APS
11 must collect through the RES adjustor for 2015 to approximately \$123.8 million. This
12 approximate \$30 million in offsets for 2015 is comprised of approximately \$6 million
13 collected from base rates, production tax credits of approximately \$8.3 million, green
14 choice revenue of approximately \$1.7 million, and \$14 million in reallocated program
15 funds. See RES Plan at Exhibit 1A.

16 **b. Reallocation of Program Funds**

17 A total of approximately \$14 million in reallocated program funds is available to
18 mitigate the effects of the 2015 budget and to correspondingly reduce the amount of
19 funds that needs to be collected through the RES adjustor. This \$14 million was
20 identified in Decision No. 75237 and includes variances in power purchase costs,
21 programs being completed under budget, rate program revenues, cancellation of prior
22 authorized contracts and rollover funds. Per Decision No. 75237, APS is paying interest
23 of 1% on this \$14 million in 2014. In addition to the previously identified \$14 million,
24 there is an additional \$14 million in carry over funds available to be reallocated for
25 future years. APS proposes that these additional funds be applied to offset the 2016
26 RES budget. The use of these carry over funds to offset the 2015 and 2016 budgets is
27 shown on Exhibit 1A.
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c. Production Tax Credits (“PTCs”) from AZ Sun

As discussed in the Plan, APS receives PTCs from the state of Arizona as a result of its ownership of the AZ Sun projects. These PTCs vary from year to year depending on, among other factors, actual energy production. APS projects that it will receive approximately \$8.3 million in PTCs for AZ Sun projects in 2015, up from \$8.2 in 2014. APS intends to apply these funds to its 2015 budget to reduce the amount that must be collected through the RES adjustor.

VI. CONCLUSION

APS’s 2015 RES Plan provides continued support and funding for all previously approved RES programs and commitments and proposes certain new programs, which combined, will enable APS to continue to meet its obligations under the RES and 2009 Settlement while moderating incremental rate impact. Accordingly, APS requests that the Commission approve APS’s 2015 RES Plan and budget as proposed, including:

1. Approve the continuation of all existing programs and commitments, including the continuation of the Company’s Green Choice rate schedules GPS-1, GPS-2 and GPS-3;
2. Approve the new battery-solar PV integration study program;
3. Determine whether to adopt the proposed “bifurcated floor and cap structure” REST surcharge modifications for Extra Small and Small commercial and industrial customer classes; and
4. Approve a 2015 RES Plan and budget that (i) supports APS’s continued progress toward meeting the RES and its 2009 Settlement obligation, (ii) allows APS to continue all approved programs and commitments, including AZ Sun, and (iii) allows the offsets and reallocations of funds proposed in the Plan.

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RESPECTFULLY SUBMITTED this 1st day of July, 2014.

By: Melissa M. Krueger
Melissa M. Krueger

Attorney for Arizona Public Service Company

ORIGINAL and thirteen (13) copies
of the foregoing filed this 1st day of
July, 2014, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Stephanie J. [Signature]

EXHIBIT A

aps

**Renewable Energy Standard
Implementation Plan 2015 – 2019**

July 1, 2014

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Attachment A: Distributed Energy Administration Plan

I. Executive Summary

The 2015-2019 Renewable Energy Standard (RES) Implementation Plan ("Plan") requests funding approval for existing program commitments and deployment of previously authorized programs, as well as requests funding approval for new programs. APS expects to achieve compliance with its 2015 RES requirements and maintain its renewable energy obligations in 2015 in accordance with APS's 2009 Settlement Agreement (2009 Settlement),¹ provided all the resources discussed herein are authorized and continued as previously approved in prior Commission decisions.

APS is required by the RES to achieve 5.0 percent of retail sales with renewable resources by 2015, increasing annually to 9.0 percent in 2019. The 2009 Settlement required, among other provisions, "that Arizona Public Service Company shall acquire new renewable energy resources with annual generation or savings of at least 1.7 million Megawatt hours to be in service by 2015..."² It further states that "These new resources shall be in addition to existing resources or commitments as of the end of 2008, as identified in APS's 2008 RES Compliance Report..."³

Renewable Generation

In Decision No. 74237⁴, the Commission authorized APS to move ahead with 20 MW of Renewable Generation (RG) projects under the AZ Sun Program – Luke Air Force Base (10 MW) and City of Phoenix (10 MW). APS has issued a Request for Proposal (RFP) and expects to place the projects in-service by the end of 2015.

Also in Decision No. 74237⁵, the Commission ordered APS to submit information regarding whether it would be necessary to continue the final 30 MW phase of AZ Sun in order to comply with the 2009 Settlement Agreement. On April 15, 2014, APS responded⁶ to the Commission's inquiry, indicating 20 MW of the final 30 MW phase of AZ Sun would be necessary to ensure that the Company can meet compliance, given the uncertainty of the distributed generation market. APS is proposing in this plan that the Company be authorized to proceed with the construction of a 20 MW utility-owned solar project to be located at APS's Redhawk Power Station. If approved, the Company expects the project's in-service date to meet APS's 2009 Settlement obligation in 2015.

Distributed Energy

Consistent with ACC requirements on incentive funding step downs and APS performance with the DE requirements, APS ceased offering direct cash incentives for residential and non-residential solar PV grid-tied resources as of the end of 2013. APS is not requesting any new solar PV grid-tied resource incentives in the Plan.

¹ Decision No. 71448 (December 30, 2009).

² *See, Id.*

³ *Id.*

⁴ Decision No. 74237 (January 7, 2014)

⁵ Decision No. 74237 (January 7, 2014)

⁶ Response to Commission Inquiry in Decision 74237 (April 15, 2014)

Based upon currently installed resources and commitments from previously approved program budgets as of year-end 2014, APS projects it will be in compliance with non-residential energy targets through 2020 and residential DE energy targets through 2016. This forecast does not include RECs associated with non-incented DE installations. Through the end of May 2014, 3,354 residential PV systems for 33.8 MWac and 162 non-residential PV systems for 3.9 MWac have been installed and interconnected without receiving a direct cash incentive.

In this Plan, APS is seeking authorization for two distributed energy programs, including 1) an extension of the existing solar water heating incentive program and 2) a battery-solar PV integration research and development program.

Budget

The budget for APS's 2015 Plan consists of funding for previously authorized programs including PBI legacy payments, purchased power and revenue requirement costs, and prior initiatives currently being implemented; as well as requests for additional funding for proposed programs.

APS expects the total base budget for PBI and other DE legacy costs, PPA projects, and APS-owned projects in 2015 to be \$153.8 million and the five year total for the 2015-2019 Plan to be \$562.1 million, not including any funding offsets.

RES Adjustor

In Decision No. 75237⁷, the Commission approved collections from the RES adjustor to expand from three to five customer categories. In this Plan, to address Commission and customer concerns in the extra small commercial and industrial classes, APS proposes adding a 'bifurcated floor and cap' structure to the extra small/small commercial category. To show the impact of altering the current five customer class approach, APS provides three examples of possible adjustor cost allocations for the Commission's consideration.

⁷ January 7, 2014

2. Introduction

The 2015-2019 Renewable Energy Standard (RES) Implementation Plan ("Plan") requests funding approval for existing program commitments and deployment of previously authorized programs, as well as requests funding approval for new programs. APS expects to achieve compliance with its 2015 RES requirements and maintain its renewable energy obligations in 2015 in accordance with APS's 2009 Settlement Agreement (2009 Settlement).⁸

The 2015 Plan provides 1) an update on APS's authorized renewable programs, including customer incentive programs, generation projects, production meter installations, and Green Choice rates, 2) descriptions of additional proposed renewable programs, and 3) APS's supporting budget requirements.

A. 2015-2019 RES Requirement

The Arizona RES was established in August 2007, and requires APS to file a Plan each year for review and approval by the Arizona Corporation Commission (Commission).⁹ The Plan describes the Company's strategy to meet the requirements of the RES for the next five calendar years, identifying the eligible technologies, the expected schedule for the resource incorporation on a year-by-year basis, and the megawatts (MW) and megawatt-hours (MWh) expected to be added to the APS portfolio by the incorporation of those resources. Further, the RES provides that implementation of the approved Plan by the utility shall serve to measure the utility's compliance with the RES.

APS has prepared this Plan for the five year period 2015-2019 in compliance with the RES Rules. The RES requires that affected utilities satisfy an annual renewable energy requirement by providing a percentage of their electric retail sales from renewable resources. The required percentage for the current implementation period begins at 5 percent in 2015 and increases to 9 percent in 2019. The RES requires that the minimum percentage increases to 15 percent of the utility's total retail sales by the year 2025.

As of the time of this filing, Docket No. E-01345A-12-0290¹⁰ is currently pending and addresses how RES compliance with the Distributed Energy (DE) rules can be met absent direct cash incentives. However, the Commission has yet to rule on this issue. Any action taken by the Commission in the aforementioned docket may affect the Company's RES compliance reporting moving forward. Accordingly, the Commission has requested that APS include information in its Plan on the Company's compliance standing both with and without being able to record renewable energy installed independently by a customer without receiving a direct cash incentive (described herein as "non-incented installations"). Exhibits 2B and 2C identify distributed energy production under both scenarios requested by the Commission. Other Exhibits in this Plan show existing and projected non-incented

⁸ Decision No. 71448 (December 30, 2009).

⁹ A.A.C. R14-2-1801 et. seq.

¹⁰ Track and Record hearings, in the matter of APS's 2013 RES Implementation Plan.

installations, but this energy is not used in reporting renewable resources available to meet RES compliance needs.

B. 2009 Settlement Agreement Requirements

The Company's 2009 Settlement¹¹ adopted provisions that exceed the requirements of the Arizona RES. The 2009 Settlement required, among other provisions, "that Arizona Public Service Company shall acquire new renewable energy resources with annual generation or savings of at least 1.7 million Megawatt hours to be in service by 2015..."¹² It further states that "These new resources shall be in addition to existing resources or commitments as of the end of 2008, as identified in APS's 2008 RES Compliance Report..."¹³ As a result of current economic and sales forecasts, APS expects approximately 12 percent of the Company's retail sales will be met by renewable resources by year end 2015, more than double the 2015 RES requirement of five percent of retail sales.

II. Renewable Generation

This plan reviews a number of APS's renewable programs that have been authorized through prior Commission orders and are continued through approval of APS's annual Plan filings. Also in this Plan, APS proposes new programs that would be included under the renewable program portfolio.

A. Authorized Renewable Generation Programs

Renewable Generation (RG) resources within the APS portfolio are generally larger-scale renewable resources that serve the energy demand of all APS customers. These resources are part of the Company's energy portfolio as provided to the Commission in the Company's 2014 Integrated Resource Plan¹⁴ and are applied to APS's overall RES requirements. APS is required to include estimated pricing information related to RG projects. Similar to prior Plans, APS has included a redacted version of the information in Exhibits 3B and 3D and is providing un-redacted pricing information directly to the Commission.

In Decision No. 74237¹⁵, the Commission authorized 20 MW of RG projects under the AZ Sun Program – Luke Air Force Base (10 MW) and City of Phoenix (10 MW). APS expects to place the projects in-service by the end of 2015.

Also in Decision No. 74237¹⁶, the Commission ordered APS to submit information regarding whether it would be necessary to install the final 30 MW of the AZ Sun Program in order to comply with the 2009 Settlement Agreement. On April 15, 2014, APS responded¹⁷ to the

¹¹ Decision No. 71448 (December 30, 2009).

¹² *Id.*

¹³ *Id.*

¹⁴ Docket No. E-0000V-13-0070, filed in compliance with Ariz. Admin. Code R14-2-703.

¹⁵ Decision No. 74237 (January 7, 2014)

¹⁶ *Id.*

¹⁷ Response to Commission Inquiry in Decision 74237 (April 15, 2014)

Commission's inquiry, indicating 20 MW of the final 30 MW phase of AZ Sun would be necessary to ensure that the Company can meet compliance, given the uncertainty of the distributed generation market. APS is proposing in this plan that the Company be authorized to proceed with the construction of a 20 MW utility-owned solar project to be located at APS's Redhawk Power Station, which is a previously identified site where the Company has already initiated pre-development activities. If approved, the Company expects it will be able to conduct the final RFP, sign a contract, and begin construction in 2014. The Company expects the project's in-service date to meet APS's 2009 Settlement obligation in 2015.

III. Distributed Energy

A. Existing Distributed Energy Programs

1. Direct cash incentives

Consistent with ACC requirements on incentive funding step downs and APS performance with the DE requirements, APS ceased offering direct cash incentives for residential and non-residential solar PV grid-tied resources as of the end of 2013. APS is not requesting any new solar PV grid-tied resource incentives in the 2015 Plan.

Based upon currently installed resources and commitments from previously approved program budgets as of year-end 2014, APS projects it will be in compliance with non-residential energy targets through 2020 and residential DE energy targets through 2016. This forecast does not include RECs associated with non-incented DE installations.

In Decision No. 74237¹⁸, the Commission ordered APS to offer solar water heating incentives in 2014. The Commission established a 2014 incentive budget of \$500,000 and set the incentive for qualified systems at \$0.30 per first year kWh savings.

2. Lifetime Production Based Incentive (PBI) Payments

Since 2009, APS has been authorized to implement annual PBI program expansions, each of which provide customers with long-term, ongoing RES budget commitments that are gradually paid out over a period of up to 20 years. As shown in Exhibit 3C, a total of \$771.8 million in authorized PBI funding has been approved by the Commission over the life of APS's RES programs. To date, APS has entered into long-term PBI contracts totaling \$668.5 million and the Company has paid \$98.2 million cumulatively against the total. APS forecasts at the end of 2015, \$529.4 million in lifetime PBI payments will remain to be collected and paid for through future RES budgets, with \$40.9 million projected to be paid during 2015.

¹⁸ Decision No. 74237 (January 7, 2014)

Exhibit 3C also includes the amortization of PBI commitments through ongoing incentive payments as well as the reduction in remaining PBI authorizations no longer needed to complete prior programs.

3. DE Compliance Status

On March 5, 2013, the Commission requested that APS disclose its 2012 and future compliance status both with and without the ability to track and record non-incented DE installations absent a REC transfer (see Exhibits 2B and 2C). APS forecasts in the 2015-2019 Plan anticipate the continued growth of non-incented DE installations, particularly within the residential PV segment as well as modest growth in the non-residential segment.

As shown in Exhibit 2B, if APS were able to count generation from non-incented installations towards its RES DE compliance requirements, APS anticipates generation from total systems projected to be installed though 2015 would 1) advance residential compliance from 2016 to 2019, 2) have little impact on non-residential compliance, and 3) advance overall DE compliance from 2018 to 2019. Assuming generation from non-incented systems were able to be counted for compliance through 2019 rather than 2015, APS anticipates that generation from the total systems to be installed would 1) advance residential compliance from 2016 to 2022, 2) advance non-residential compliance from 2020 to 2022, and 3) advance overall DE compliance from 2018 to 2022.

Through the end of May 2014, 3,354 residential PV systems for 33.8 MWac and 162 non-residential PV systems for 3.9 MWac have been installed and interconnected without receiving a direct cash incentive.

B. Proposed Distributed Energy Programs

1. Continuation of direct cash incentives for solar water heating

In Decision No. 74237¹⁹, the Commission ordered APS to offer solar water heating incentives in 2014. The Commission established a budget of \$500,000 for the solar water heating incentives and set the incentive per system at \$0.30 per first year kWh savings. In order to provide consistency for the solar water heating industry, APS requests that the Commission approve maintaining a total solar water heating incentive budget of \$500,000 in 2015, with any of the unreserved 2014 incentive budget to be used to buy down the program budget in 2015.

2. Battery-solar PV integration program

APS understands that successfully integrating a high penetration of intermittent distributed renewable resources in its service territory over the long run will likely include the adoption of energy storage in the form of battery technology. The Company believes that battery technology may be a particularly important tool in helping APS manage and mitigate the

¹⁹ *Id.*

impact that DE solar PV systems will have on the operation of an efficient grid. In response, the Company needs to better understand how battery storage can be used to maximize the benefits of DE solar PV systems.

In this Plan, APS seeks authorization for research and development funding for a battery-solar PV integration demonstration program. Under this program, APS would purchase, install, monitor, and manage battery storage systems that would help integrate distributed solar PV into the APS distribution system. APS requests a budget approval of \$2 million for this program in 2015.

IV. Program Administration

A. Customer Production Meter Deployment

In March 2013, APS residential PV grid tied customers began receiving production meters, as required by Decision No. 72737. As of the end of May 2014, nearly 21,000 production meters had been installed. By the end of 2014, APS expects production meters will be installed on all PV systems previously placed in service. Consistent with the Commission's order, all new systems will continue to receive production meters, including any non-incented installations. As reported last year, the production meters will enable APS to transition to meeting RES compliance requirements by collecting and reporting data on actual performance of DE systems interconnected within its service territory.

B. Distributed Energy Administration Plan (DEAP)

The DEAP is a master program administration guideline that APS posts on its public website. APS has rewritten the DEAP to reflect current Commission policies and programs. While a majority of the DEAP is specific to administration of active incentive programs, it is particularly important to ensure that absent incentives, customers remain aware of the Company's interconnection requirements, reporting requirements, and recent program standards. The most recent version of the DEAP is included with this Plan as Attachment A.

C. Educational Outreach

Under the Education Outreach budget, APS publicly posts and maintains information about the current status of DE adoption and programs on ArizonaGoesSolar.org. In addition, the Education Outreach budget includes expenses associated with developing and updating RES-attributable educational and program materials that are made available to inform public stakeholders through website updates and print materials. APS requests \$100,000 in 2015 for the Education Outreach budget.

D. High Penetration Photovoltaic Deployment Study

APS was awarded funding from the Department of Energy, beginning in 2010, for a multi-year commitment to study the impacts of high penetrations of renewable resources on the

electric distribution grid, and to develop tools to support the reliability of the utility's distribution system under these conditions. As of June 30, 2014, APS has completed four of five project phases. The study's phases have been funded primarily through DOE grants, with some support from RES funding, and is scheduled to end in January 2015 with a final public report to be issued by Q1 of 2015 in conjunction with the DOE.

E. Green Choice Program

APS requests that the Commission approve a one year extension of the Company's Green Choice Program and the associated Green Power Rate Schedules GPS-1, GPS-2, and GPS-3. The Green Choice Program provides customers with the ability to participate in a renewable energy resource program by purchasing electricity generated from renewable resources for their homes and businesses. APS seeks approval to continue the Green Choice Program for an additional calendar year beginning January 1, 2015.

V. Budget

The budget for APS's 2015 Plan consists of funding for previously authorized programs including PBI legacy payments, purchased power and revenue requirement costs, and prior initiatives currently being implemented; as well as requests for additional funding for proposed programs. APS projects that support for prior authorized and proposed programs, less the Company's already deferred and cancelled programs, will provide sufficient funding for the Company to make its best efforts to meet its near-term RES and 2009 Settlement energy requirements.

On May 24, 2012,²⁰ the Commission resolved APS's most recent rate case in Decision No. 73183. That Decision impacted the RES program as the Commission reaffirmed that APS can recover, through the RES adjustor, the revenue requirements associated with those APS renewable energy-related capital investments made in compliance with Decision No. 71448.²¹ APS may do so until it is specifically authorized to recover those costs in base rates or another adjustor.²² The Commission has approved several APS-owned capital investments for purposes of compliance with Decision No. 71448, including the AZ Sun Program and the Schools and Government Program.

As planned resources are placed into service to support the Company's annual RES requirement and its 2009 Settlement Agreement target, APS expects the total budget for PBI and other DE legacy costs, PPA projects, and APS-owned projects to increase in 2015 before declining in 2016 and beyond.²³ The total base RES budget in 2015 is \$153.8 million and the five year total for the 2015-2019 Plan is projected to be \$562.1 million, not including any funding offsets.

²⁰ Decision No. 73183; Docket No. E-01345A-11-0224.

²¹ Decision No. 73183, Settlement Agreement, paragraph 8.2.

²² *Id.*

²³ This assumes a mid-2016 rate case adjudication.

APS intends to apply several credits and revenue streams to lower total RES adjustor collections needed in 2015 and 2016. Offsets to the 2015 budget (see Exhibit 3A) include \$6.0 million from the System Benefit Charge included in base rates and \$24.0 million in budget reductions from Production Tax Credit (PTC) funds, rate program revenues, and general reallocation offsets due to variances in power purchase costs, programs completed under budget, and cancelled projects. After applying these funding offsets, the total requested RES adjustor collection for 2015 is \$123.8 million.²⁴

A. Production Tax Credit (PTC)

Through APS's ownership of its AZ Sun projects, the Company will receive tax credits from the Arizona state PTC program in 2015-2019.²⁵ Actual PTC amounts will vary each year depending on actual energy production from each eligible project compared to its forecasted annual production, as well as an annually declining credit per MWh produced. PTC credits have already been approved for the Company's Paloma, Cotton Center, Hyder, Chino Valley, and Foothills facilities, which were placed in-service in 2011-2014. As shown in Exhibit 3A, expected PTC available in 2015 is \$8.3 million, compared with \$8.2 million in 2014. The AZ Sun projects listed above are forecasted to contribute a total of \$36.4 million in PTC revenue between 2015-2019 and approximately \$64 million over the life of the PTC.

Consistent with the 2014 Plan, APS is using its full AZ Sun PTC to offset the cost of the 2015 RES budget.

B. Reallocation of Program Funds

In its 2014 RES Plan, APS applied a portion of the Company's unallocated, existing program funds as a direct offset to the 2014 RES budget, with the remainder applied to the 2015 budget. APS identified \$14 million in prior year unallocated funds available for the 2015 budget.²⁶ Additional collected program funds are available for budget offsets due to variances in power purchase costs, programs completed under budget, rollover funds, and cancelled projects. A total of \$28 million is available for future RES budget offsets. APS proposes to apply \$14 million of the available funds towards reducing RES adjustor collections from the 2015 budget and \$14 million towards the 2016 budget in order to minimize year over year budget impacts. Any additional budget under-spend from 2014 programs, if any, will be identified prior to the Commission's approval of the 2015 Plan.

C. RES Adjustor Proportionality

APS currently collects annual, Commission-approved RES program budget requirements in its REAC-1 rate rider on a monthly basis, with customers divided into five residential, commercial, and industrial categories. Charges are applied based on kWh consumed, with

²⁴ See Exhibit 3A.

²⁵ 2010 Senate Bill 1254 established Arizona's Production Tax Credit.

²⁶ See, APS 2013 Renewable Energy Standard Compliance Report dated April 1, 2014.

an adjustor cap for each category. Decision No. 73660²⁷ requires that any customer receiving a direct cash incentive is required to pay the average cap for the relevant customer category.

Decision No. 73183²⁸ removed the requirement to continue the existing adjustor structure and the proportional allocations of REAC-1 charges. Subsequently, in Decision No. 73636,²⁹ the Commission ordered APS to study and propose the expansion of the existing three RES adjustor customer categories into more distinct categories and the re-allocation of 2014 proportional RES adjustor charges to any new categories. Decision No. 75237³⁰ approved collections from the RES adjustor move to the current five customer class approach, which are defined as follows:

- **Residential** – Applicable to all residential customers. Any customer consuming 400 kWh or above pays the cap.
- **Small Commercial** – Applicable to customers on rate schedules E-32 XS/S, E-32 TOU XS/S (General Service Extra Small and Small, both Standard and Time of Use) E-20 (Church Rate), and E-221 with a demand of less than 100 kW (Water Pumping) and those rates with any applicable riders. Any customer consuming 14,857 kWh or above continues to pay the cap.
- **Medium Commercial** – Applicable to customer on rate schedules E-32 Medium, E-32 TOU Medium, and E-221 (Water Pumping) with 100-400 kW of demand, and those rates with any applicable riders. Any customer consuming 25,000 kWh or above would pay the cap.
- **Large Commercial** - Applicable to customers on rate schedules E-32 Large and E-32 TOU Large customers and E-221 (Water Pumping) with 400-3000 kW of demand, and those rates with any applicable riders. Any customer consuming 50,000 kWh or above would pay the cap.
- **Industrial** – Applicable to Industrial customers, generally E-34 and E-35 customers. Any customer consuming 100,000 kWh or above would pay the cap.

During the 2014 Plan proceedings, the Commission directed APS to explore and submit a proposal that would add a sixth customer category to address concerns regarding small and extra small commercial customers. APS seeks Commission direction on an appropriate method for proportionally allocating costs to each group. Figure A on page 10 shows three examples of adjustor cost allocation for informational purposes.

Example 1: Shows the 2015 adjustor using the current five class method and a proportional cost allocation.

Example 2: Decision No. 73183 requires that any customer receiving a direct cash incentive is required to pay the average cap for the relevant customer category. For customers in the

²⁷ February 6, 2013.

²⁸ May 24, 2012.

²⁹ January 31, 2013.

³⁰ January 7, 2014

Residential, Medium, Large, and Extra Large Commercial and Industrial classes, there is no proposed structural change to the average cap. However, to address Commission and Customer concerns in the Extra Small/Small Commercial and Industrial classes, APS proposes a 'bifurcated floor and cap' structure that works in this fashion, as shown in Example 2. Each month, the customer's usage is evaluated as being either Extra Small or Small. Extra Small customers would pay a minimum charge of \$9.55 and the cents per kWh charge for each kWh above 835 kWh, up to the cap for the Extra-Small/Small category. Small customers would pay a higher minimum charge of \$46.93 and the cents per kWh charge for every kWh above 4175 kWh up to the cap for the Extra-Small/Small category. APS believes that this is in keeping with the original desire of the Commission that a customer who installs a renewable facility should pay into the RES fund what they would have paid prior to the installation of the renewable (usually solar) facility.

Example 3: Reflects a scenario in which all customers would pay an equal share of the RES program costs based on their individual kilowatt-hour energy consumption should the Commission wish to consider an adjustor that charges customers based upon their true proportional energy consumption with respect to all other consumers.

Figure A: RES Adjustor Examples

Example 1: Continue five customer classes without extra small/small commercial cap floors								
		Residential	Small Commercial		Medium Commercial	Large Commercial	Industrial	
			Extra Small Commercial	Small Commercial				
2015	RES Budget (in \$M)	\$ 123.8						
	\$/kWh	\$ 0.011270	\$ 0.011270	\$ 0.011270	\$ 0.011270	\$ 0.011270	\$ 0.011270	\$ 0.011270
	Cap	4.51	167.44	167.44	281.75	563.50	3,662.00	
	Average Cap	4.07	25.60	25.60	246.00	542.03	3,662.00	
2016	RES Budget (in \$M)	\$ 100.4						
	\$/kWh	\$ 0.008933	\$ 0.008933	\$ 0.008933	\$ 0.008933	\$ 0.008933	\$ 0.008933	\$ 0.008933
	Cap	3.57	132.72	132.72	223.33	446.65	2,902.00	
	Average	3.22	20.14	20.14	194.99	429.64	2,902.00	
2017	RES Budget (in \$M)	\$ 85.1						
	\$/kWh	\$ 0.007387	\$ 0.007387	\$ 0.007387	\$ 0.007387	\$ 0.007387	\$ 0.007387	\$ 0.007387
	Cap	2.95	109.75	109.75	184.68	369.35	2,400.00	
	Average	2.66	16.59	16.59	161.25	355.28	2,400.00	
2018	RES Budget (in \$M)	\$ 74.1						
	\$/kWh	\$ 0.006272	\$ 0.006272	\$ 0.006272	\$ 0.006272	\$ 0.006272	\$ 0.006272	\$ 0.006272
	Cap	2.51	93.18	93.18	156.80	313.60	2,038.00	
	Average	2.27	14.10	14.10	136.91	301.65	2,038.00	
2019	RES Budget (in \$M)	\$ 75.8						
	\$/kWh	\$ 0.006263	\$ 0.006263	\$ 0.006263	\$ 0.006263	\$ 0.006263	\$ 0.006263	\$ 0.006263
	Cap	2.51	93.05	93.05	156.58	313.15	2,035.00	
	Average	2.27	14.04	14.04	136.71	301.22	2,035.00	
Example 2: Five customer classes with extra small/small commercial cap floors								
		Residential	Small Commercial		Medium Commercial	Large Commercial	Industrial	
			Extra Small Commercial	Small Commercial				
2015	RES Budget (in \$M)	\$ 123.8						
	\$/kWh	\$ 0.011241	\$ 0.011241	\$ 0.011241	\$ 0.011241	\$ 0.011241	\$ 0.011241	\$ 0.011241
	Cap	4.50	167.01	167.01	281.03	562.05	3,652.00	
	Average Cap	4.06	n/a	n/a	245.37	540.64	3,652.00	
	Cap Floor	-	9.55	46.93	-	-	-	
2016	RES Budget (in \$M)	\$ 100.4						
	\$/kWh	\$ 0.008905	\$ 0.008905	\$ 0.008905	\$ 0.008905	\$ 0.008905	\$ 0.008905	\$ 0.008905
	Cap	3.56	132.30	132.30	222.63	445.25	2,893.00	
	Average	3.21	n/a	n/a	194.38	428.29	2,893.00	
	Cap Floor	-	7.57	37.18	-	-	-	
2017	RES Budget (in \$M)	\$ 85.1						
	\$/kWh	\$ 0.007373	\$ 0.007373	\$ 0.007373	\$ 0.007373	\$ 0.007373	\$ 0.007373	\$ 0.007373
	Cap	2.95	109.54	109.54	184.33	368.65	2,396.00	
	Average	3.21	n/a	n/a	194.38	428.29	2,893.00	
	Cap Floor	-	7.57	37.18	-	-	-	
2018	RES Budget (in \$M)	\$ 74.1						
	\$/kWh	\$ 0.006252	\$ 0.006252	\$ 0.006252	\$ 0.006252	\$ 0.006252	\$ 0.006252	\$ 0.006252
	Cap	2.50	92.89	92.89	156.30	312.60	2,031.00	
	Average	2.26	n/a	n/a	136.47	300.69	2,031.00	
	Cap Floor	-	5.31	26.10	-	-	-	
2019	RES Budget (in \$M)	\$ 75.8						
	\$/kWh	\$ 0.006243	\$ 0.006243	\$ 0.006243	\$ 0.006243	\$ 0.006243	\$ 0.006243	\$ 0.006243
	Cap	2.50	92.75	92.75	156.08	312.15	2,028.00	
	Average	2.26	n/a	n/a	136.28	300.26	2,028.00	
	Cap Floor	-	5.31	26.06	-	-	-	

Example 3: No Caps, kWh only rate

			Small Commercial					Industrial
			Residential	Extra Small Commercial	Small Commercial	Medium Commercial	Large Commercial	
2015	RES Budget (in \$M)	\$ 123.8						
		\$/kWh	\$ 0.004323	\$ 0.004323	\$ 0.004323	\$ 0.004323	\$ 0.004323	\$ 0.004323
2016	RES Budget (in \$M)	\$ 100.4						
		\$/kWh	\$ 0.003450	\$ 0.003450	\$ 0.003450	\$ 0.003450	\$ 0.003450	\$ 0.003450
2017	RES Budget (in \$M)	\$ 85.1						
		\$/kWh	\$ 0.002869	\$ 0.002869	\$ 0.002869	\$ 0.002869	\$ 0.002869	\$ 0.002869
2018	RES Budget (in \$M)	\$ 74.1						
		\$/kWh	\$ 0.002445	\$ 0.002445	\$ 0.002445	\$ 0.002445	\$ 0.002445	\$ 0.002445
2019	RES Budget (in \$M)	\$ 75.8						
		\$/kWh	\$ 0.002447	\$ 0.002447	\$ 0.002447	\$ 0.002447	\$ 0.002447	\$ 0.002447

Exhibit 1A: APS 2015 - 2019 RES Program Summary

Line No.	APS RES Targets (MWh)	2015	2016	2017	2018	2019
1	APS Estimated Retail Sales	28,698,987	29,160,799	29,685,603	30,290,199	30,915,937
2	APS RES Target - % of Retail Sales	5.0%	6.0%	7.0%	8.0%	9.0%
3	APS Total RES Requirement	1,434,949	1,749,648	2,077,992	2,423,216	2,782,434
4	RES Generation Target	1,004,465	1,224,754	1,454,595	1,696,251	1,947,704
5	Distributed Energy % of RES Requirement	30%	30%	30%	30%	30%
6	Distributed Energy Requirement	430,485	524,894	623,398	726,965	834,730
7	Residential Distributed Energy (50%)	215,243	262,447	311,699	363,483	417,365
8	Non-Residential Distributed Energy (40%)	172,194	209,958	249,359	290,786	333,892
9	Wholesale Distributed Energy (10%) ¹	43,048	52,489	62,340	72,696	83,473
10	Renewable Generation (MWh)	2015	2016	2017	2018	2019
11	RES Generation Target	1,004,465	1,224,754	1,454,595	1,696,251	1,947,704
12	Existing/Planned Generation Owned/Contracted	2,541,774	2,606,753	2,585,693	2,571,649	2,557,196
13	Energy Applied To/(Withdrawn From) APS Bank for RES (line 18 - line 16)	1,537,309	1,381,999	1,131,097	875,398	609,492
14	Customer Sited Distributed Energy (MWh)	2015	2016	2017	2018	2019
15	RES Distributed Energy Requirement	430,485	524,894	623,398	726,965	834,730
16	Estimated Existing Distributed Energy ²	754,490	763,495	772,913	782,840	793,187
17	Energy Applied To/(Withdrawn From) APS Bank for RES (line 25 - line 23)	324,005	238,601	149,515	55,875	(41,543)
18	Non-Incented DE Installations	163,748	247,987	301,766	359,547	430,401
19	Total RES Energy (MWh)	2015	2016	2017	2018	2019
20	Total RES Requirement	1,434,949	1,749,648	2,077,992	2,423,216	2,782,434
21	Total Expected RES Production (line 18 + line 25)	3,296,264	3,370,248	3,358,606	3,354,489	3,350,383
22	Energy Applied To/(Withdrawn From) APS Bank for RES (line 34 - line 32)	1,861,315	1,620,600	1,280,614	931,273	567,949
23	Non-Incented DE Installations	163,748	247,987	301,766	359,547	430,401
24	APS RES Budget Summary (\$ M's)	2015	2016	2017	2018	2019
25	Total Renewable Generation ³	\$ 99.6	\$ 80.9	\$ 53.9	\$ 42.2	\$ 42.9
26	Total Distributed Energy ³	54.2	49.2	46.3	46.4	46.5
27	Base RES Program Budget	\$ 153.8	\$ 130.1	\$ 100.2	\$ 88.6	\$ 89.4
28	Base Rates	(6.0)	(6.0)	(6.0)	(6.0)	(6.0)
29	Production Tax Credits	(8.3)	(8.0)	(7.4)	(6.8)	(5.9)
30	Estimated Green Choice Revenue Credit	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)
31	Previous Years Rollover Funds and Other Credits	(14.0)	(14.0)	TBD	TBD	TBD
32	RES Adjustor Collection	\$ 123.8	\$ 100.4	\$ 85.1	\$ 74.1	\$ 75.8
33	APS RES Adjustor Schedule & Caps ⁴	2015	2016	2017	2018	2019

Notes:
¹ Per AAC R14-2-1805.
² Does not include non-incentive installations from residential and non-residential energy sources towards compliance. Non-incentive installations defined as installations made by customers without taking a direct cash incentive and without transferring REC ownership to APS.
³ Assumes July 2016 rate case adjudication.
⁴ Refer to page 10 of Exhibit 1 regarding RES Adjustor Schedule.

Exhibit 2A: Targeted Resources

Line No.	Targeted Generation Resources: 2	Ownership ¹	Actual / Expected Completion	2015-2019 Total MWac	Targeted Energy Production (MWh or Equivalent)					Total
					2015	2016	2017	2018	2019	
1	Solar:									
2	Ajo	3rd Party PPA	Online	4.5	10,307	10,285	10,204	10,153	10,102	51,050
3	Prescott	3rd Party PPA	Online	10	24,839	24,657	24,344	24,101	23,860	121,801
4	Badger	3rd Party PPA	Online	15	39,902	39,675	39,338	39,056	38,773	196,744
5	Gillespie	3rd Party PPA	Online	15	42,429	42,341	42,006	41,796	41,587	210,159
6	Saddle Mountain	3rd Party PPA	Online	15	34,511	34,235	33,961	33,689	33,420	169,817
7	Solana CSP	3rd Party PPA	Online	250	934,819	937,739	934,819	934,819	934,819	4,677,014
8	Small Solar Sites	APS	Online	4.6	9,953	9,953	9,953	9,953	9,953	49,766
9	Paloma	APS	Online	17	40,889	40,602	40,318	40,036	39,756	201,600
10	Hyder I	APS	Online	16	40,264	40,181	39,862	39,464	39,066	199,433
11	Cotton Center	APS	Online	17	45,394	45,442	45,122	44,802	44,482	226,203
12	Chino Valley	APS	Online	19	47,743	47,504	47,267	47,030	46,795	236,539
13	Foothills I/II	APS	Online	35	111,480	111,272	110,368	109,816	109,267	552,205
14	Foothills II	APS	Online	14	45,711	45,619	45,255	45,029	44,804	226,418
15	Gila Bend	APS	Online	32	108,426	108,225	107,344	106,808	106,274	537,076
16	Lupe Bend	APS	Apr, 2015	10	22,174	27,855	27,175	27,439	27,759	132,759
17	Lupe AFB	APS	Jun, 2015	10	16,212	27,809	27,670	27,531	27,394	126,615
18	City of Phoenix	APS	Dec, 2015	20	2,886	55,797	55,518	55,240	54,964	224,404
19	Redhawk Solar									
20										
21	Wind:									
22	Aragonne Mesa	3rd Party PPA	Online	90	269,239	270,240	269,239	269,239	269,239	1,347,194
23	High Lonesome	3rd Party PPA	Online	100	298,592	300,495	299,592	299,592	299,592	1,498,863
24	Perrin Ranch	3rd Party PPA	Online	99	226,416	227,074	226,416	226,416	226,416	1,132,739
25										
26	Geothermal:									
27	Salton Sea/CE Turbo	3rd Party PPA	Online	10	66,160	66,352	66,160	66,160	66,160	330,992
28										
29	Biomass/Biogas:									
30	Snowflake	3rd Party PPA	Online	14	60,293	51,151	40,996	30,688	19,951	203,079
31	Sexton (Glendale Landfill)	3rd Party PPA	Online	2.9	19,576	19,630	19,576	19,576	19,576	97,934
32	Northwest Regional Landfill Gas	3rd Party PPA	Online	3.2	22,560	22,622	22,560	22,560	22,560	112,862
33										
34										
35	Total Targeted Generation			823	2,541,774	2,606,753	2,585,693	2,571,649	2,557,196	12,863,065
36										
37	Targeted Distributed Energy Resources: 3									
38	Residential:									
39	UFI Installations	Customer-Sited DE	Various	Various	287,510	287,510	287,510	287,510	287,510	1,437,550
40	Non-Incentive Installations ⁴	Customer-Sited DE	Various	Various	145,256	217,526	259,302	303,177	351,073	1,276,334
41	Flagstaff Community Power Project	APS	Online	0.4	775	775	775	775	775	3,875
42										
43										
44	Subtotal Residential				433,541	505,811	547,587	591,462	639,358	2,717,759
45	Non-Residential:									
46	UFI Installations	Customer-Sited DE	Various	Various	34,678	34,678	34,678	34,678	34,678	173,390
47	PBI Installations	Customer-Sited DE	Various	Various	211,573	211,573	211,573	211,573	211,573	1,057,865
48	Non-Incentive Installations ⁴	Customer-Sited DE	Various	Various	18,492	30,461	43,464	56,370	79,338	227,115
49	DE RFP	Customer-Sited DE	Online	35	75,477	75,212	74,949	74,687	74,425	374,750
50	Schools & Government (3rd-Party Owned)	Customer-Sited DE	Various	45	75,843	75,843	75,843	75,843	75,843	379,215
51	Schools & Government (Utility-Owned)	APS	Online	13	24,367	24,197	24,028	23,859	23,692	120,143
52	Flagstaff Community Power Project	APS	Online	0.9	1,218	1,218	1,218	1,218	1,218	6,090
53	Wholesale DE	3rd Party PPA	Online	NA	43,048	52,489	62,340	72,696	83,473	314,047
54										
55										
56										
57	Subtotal Non-Residential				484,697	505,671	527,092	550,925	584,230	2,652,616
58	Total Targeted DE				918,238	1,011,482	1,074,679	1,142,387	1,223,588	5,370,375
59										

Notes:
¹All utility-owned and Third Party generation projects are developed through a competitive RFP process, and all DE systems are built independently by Third Party developers and installers.
²Reported as incremental production (non-annualized).
³Reported as annualized production.
⁴Non-Incentive Installations defined as installations made by customers without taking a direct cash incentive and without transferring REC ownership to APS, and are not counted towards RES compliance.

Exhibit 2B: Distributed Energy Track and Record Table (MWh) ¹

Per Commission request on March 5, 2013, this exhibit represents actual and forecasted 2013-2019 RES DE compliance totals compared with where APS's compliance position would be if the Company were allowed to count independent, non-incentive customer installations towards its RES compliance reporting. The non-incented installations shown below represent actual non-incentive installations to date for 2013 and 2014, as well as forecasted DE customer growth absent any new incentive program funding for 2015-2019.

Line No		2013	2014	2015	2016	2017	2018	2019
1	Residential DE (MWh)							
2	Residential (incented/owned) ²	278,161	288,285	288,285	288,285	288,285	288,285	288,285
3	Non-incented Installations ³	4,751	72,986	145,256	217,526	259,302	303,177	351,073
4	Total	282,912	361,271	433,541	505,811	547,587	591,462	639,358
5								
6	Non-Residential DE (MWh)							
7	Non-Residential (incented/owned) ⁴	418,214	458,044	466,205	475,210	484,628	494,555	504,902
8	Non-incented Installations ³	2,250	6,631	18,492	30,461	42,464	56,370	79,328
9	Total	420,464	464,675	484,697	505,671	527,092	550,925	584,230
10								
11	Total DE (MWh)							
12	Residential & Non-Residential (incented/owned)	696,375	746,329	754,490	763,495	772,913	782,840	793,187
13	Non-incented Installations ³	7,001	79,617	163,748	247,987	301,766	359,547	430,401
14	Total	703,376	825,947	918,238	1,011,482	1,074,679	1,142,387	1,223,588
15								
16	RES DE Requirements (MWh)							
17	Total DE Requirements	337,526	388,082	430,485	524,894	623,398	726,965	834,730
18	Residential/Non-Residential Requirements	168,763	194,041	215,243	262,447	311,699	363,483	417,365
19								
20								
21								

Notes:

¹ If APS were allowed to count non-incented installations towards its RES DE compliance requirements, APS anticipates total installations projected to be installed through 2015 would:

- 1) advance residential compliance from 2016 to 2019,
- 2) have no impact on non-residential compliance, and
- 3) advance overall DE compliance from 2018 to 2019.

If APS were allowed to count non-incented installations towards its RES DE compliance requirements, APS anticipates total installations projected to be installed through 2019 would:

- 1) advance residential compliance from 2016 to 2022,
- 2) advance non-residential compliance from 2020 to 2022, and
- 3) advance overall DE compliance from 2018 to 2022.

² Includes UFI DE and Flagstaff Community Power Project.

³ Non-incented installations defined as installs made by customers without taking a direct cash incentive and without transferring REC ownership to APS, and are not counted towards RES compliance.

⁴ Includes UFI, PBI, and Wholesale DE programs.

Exhibit 2C: Distributed Energy Track and Record Graph

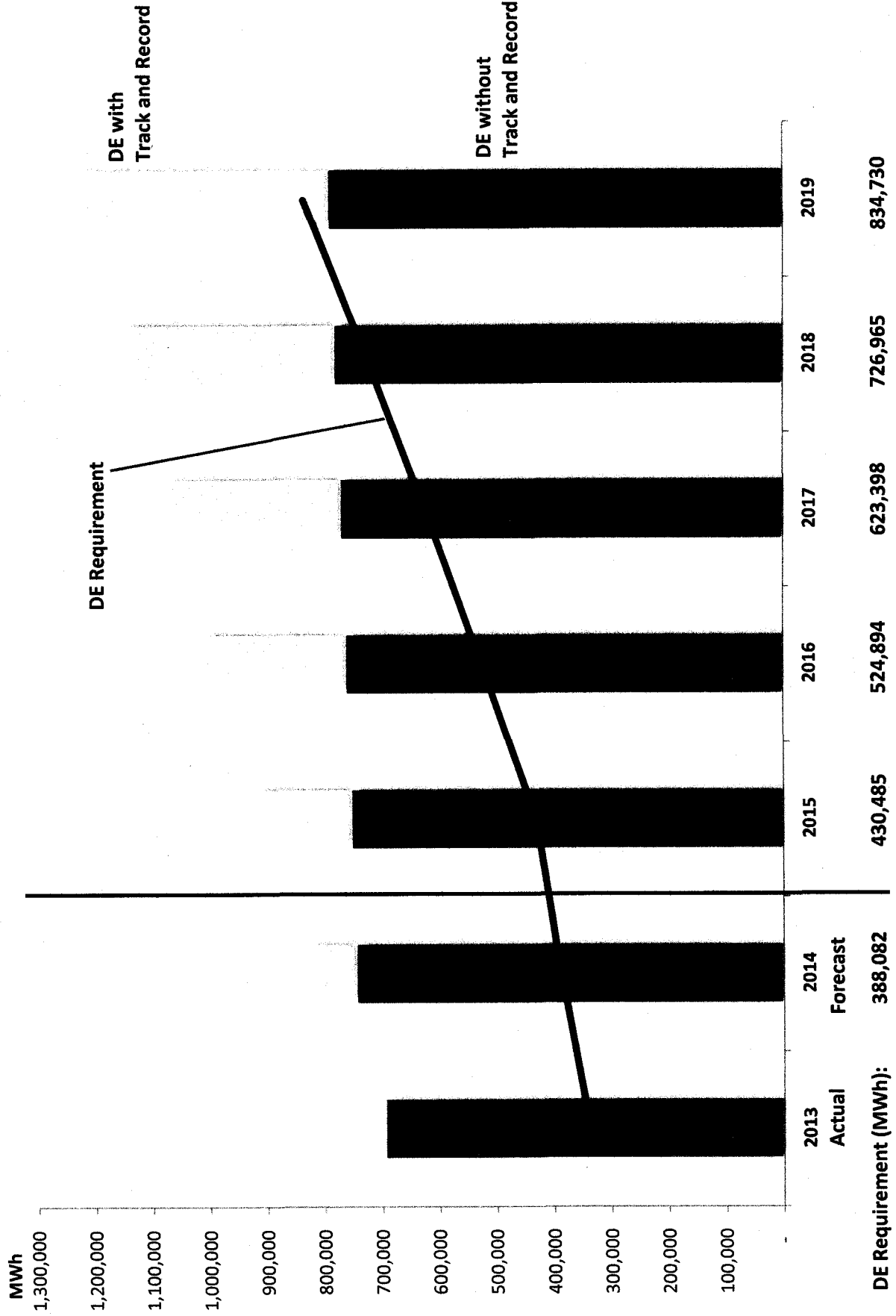


Exhibit 3A: 2015 RES IP Summary Budget

Line No.	2015	2016	2017	2018	2019	Total
Renewable Generation						
Renewable Generation Contracts and Operation and Maintenance						
1						
2						
3	\$ 98.1	\$ 79.4	\$ 52.4	\$ 40.7	\$ 41.4	\$ 312.0
4	0.2	0.2	0.2	0.2	0.2	1.0
5	1.3	1.3	1.3	1.3	1.3	6.5
6	\$ 99.6	\$ 80.9	\$ 53.9	\$ 42.2	\$ 42.9	\$ 319.5
7						
8						
9						
Customer Sited Distributed Energy						
Existing Contracts and Commitments						
10	\$ 0.2	\$ 0.1	\$ -	\$ -	\$ -	\$ 0.3
11	5.8	5.7	5.1	5.0	4.9	26.5
12	26.5	26.5	26.5	26.5	26.5	132.5
13	8.6	8.6	8.6	8.6	8.6	43.0
14	4.9	2.3	-	-	-	7.2
15	\$ 46.0	\$ 43.2	\$ 40.2	\$ 40.1	\$ 40.0	\$ 209.5
16						
17						
Proposed Programs						
18	\$ 0.5	\$ -	\$ -	\$ -	\$ -	\$ 0.5
19	\$ 0.5	\$ -	\$ -	\$ -	\$ -	\$ 0.5
20						
21						
Non-Energy Distributed Energy Costs						
22	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 1.5
23	5.2	5.4	5.6	5.8	6.0	28.0
24	2.0	0.1	-	-	-	2.1
25	0.1	0.1	0.1	0.1	0.1	0.5
26	0.1	0.1	0.1	0.1	0.1	0.5
27	0.1	0.1	0.1	0.1	0.1	0.5
28	\$ 7.7	\$ 6.0	\$ 6.1	\$ 6.3	\$ 6.5	\$ 32.6
29						
30	\$ 54.2	\$ 49.2	\$ 46.3	\$ 46.4	\$ 46.5	\$ 242.6
31						
32	\$ 153.8	\$ 130.1	\$ 100.2	\$ 88.6	\$ 89.4	\$ 562.1
33						
Offsets to Base Budget						
34	\$ (6.0)	\$ (6.0)	\$ (6.0)	\$ (6.0)	\$ (6.0)	\$ (30.0)
35	(8.3)	(8.0)	(7.4)	(6.8)	(5.9)	(36.4)
36	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(8.5)
37	(14.0)	(14.0)	TBD	TBD	TBD	(28.0)
38	\$ 123.8	\$ 100.4	\$ 85.1	\$ 74.1	\$ 75.8	\$ 459.2
39						

- Notes:**
- 1 Assumes rate case adjudication in July 2016.
 - 2 Includes RES costs totaling approximately \$0.2M for Sexton (Glendale Landfill) PPA for 2014-2017.
 - 3 Third-party owned portion of the current 2011, 2012, and expanded Schools and Government Programs.
 - 4 APS owned portion of the 2011 and 2012 School and Government Programs.
 - 5 Includes revenue requirements for the production metering as required by Decision No 72737.
 - 6 Details on the Battery Integration Intelligence project can be found on pg 5 of Exhibit 1 of the 2015 RES Implementation Plan.

Exhibit 3B: Targeted RES Resource Costs (in \$Ms)

Line No.	Targeted Generation Resources ¹ :	Ownership	Projected RES Cost per Year ^{1,2}					Total
			2015	2016	2017	2018	2019	
1	Solar:							
2	Ajo	3rd Party PPA						
3	Prescott	3rd Party PPA						
4	Badger	3rd Party PPA						
5	Gillespie	3rd Party PPA						
6	Saddle Mountain	3rd Party PPA						
7	Solana CSP	3rd Party PPA						
8	Chino Valley	APS						
9	Foothills I/II	APS						
10	Hyder II	APS						
11	Gila Bend	APS						
12	Luke AFB	APS						
13	City of Phoenix	APS						
14	Redhawk Solar	APS						
15								
16	Wind:							
17	Aragonne Mesa	3rd Party PPA						
18	High Lonesome	3rd Party PPA						
19	Perrin Ranch	3rd Party PPA						
20								
21	Geothermal:							
22	Salton Sea/CE Turbo	3rd Party PPA						
23								
24	Biomass/Biogas:							
25	Snowflake ³	3rd Party PPA						
26	Sexton (Glendale Landfill) ⁴	3rd Party PPA						
27	Northwest Regional Landfill Gas	3rd Party PPA						
28								
29	Subtotal Targeted Generation⁴		\$ 98.1	\$ 79.4	\$ 52.4	\$ 40.7	\$ 41.4	
30							\$ 312.2	
31	Targeted and Expected Distributed Energy Resources:							
32								
33	Residential:							
34	UFI Installations	Customer-Sited DE	\$ -	\$ -	\$ -	\$ -	\$ -	
35								
36	Subtotal Residential		\$ -	\$ -	\$ -	\$ -	\$ -	
37								
38	Non-Residential:							
39	PBI Installations	Customer-Sited DE	\$ 26.5	\$ 26.5	\$ 26.5	\$ 26.5	\$ 132.5	
40	Solar Hot Water Heater Incentives	Customer-Sited DE	0.5	-	-	-	0.5	
41	DE RFP	Customer-Sited DE	5.8	5.7	5.1	5.0	26.5	
42	Schools & Government (3rd-Party Owned)	Customer-Sited DE	8.6	8.6	8.6	8.6	43.0	
43	Schools & Government (Utility-Owned)	APS	4.9	2.3	-	-	7.2	
44	Flagstaff Community Power Project	APS	0.2	0.1	-	-	0.3	
45								
46	Subtotal Non-Residential³		\$ 46.5	\$ 43.2	\$ 40.2	\$ 40.1	\$ 210.0	
47								
48	SubTotal Targeted Distributed Energy (line 36 + line 46)		\$ 46.5	\$ 43.2	\$ 40.2	\$ 40.1	\$ 40.0	
49								
50	Total Targeted Energy Costs⁴ (line 29 + line 48)		\$ 144.6	\$ 122.6	\$ 92.6	\$ 80.8	\$ 81.4	

Notes:

- ¹ Redacted due to the competitively confidential nature of the information.
- ² Assumes July 2016 rate case adjudication.
- ³ Expected costs of Wholesale DE included in costs associated with Snowflake White Mountain Power, and not included in DE section.
- ⁴ Includes RES costs totaling approximately \$0.2M for Sexton (Glendale Landfill) PPA for 2014-2017.

Exhibit 3C: Lifetime Authorization Production Based Incentive status (\$M)

Line No.	Year	Authorization Description	PBI Lifetime Authorization:
1	2008 ^{1,2}	DE RFP Lifetime Budget	250.0
2	2009 ³	Standard PBI Lifetime Budget	220.0
3	2010 ⁴	Standard PBI Lifetime Budget	100.0
4	2011 ⁵	Standard PBI Lifetime Budget (\$73M), School and Government PBI (\$27M)	100.0
5	2012 ⁶	Standard PBI Lifetime Budget (\$30M), School and Government PBI (\$65.8M)	95.8
6	2013 ⁷	Expanded School and Government PBI	6.0
7		APS's Approved Lifetime PBI Authorization	771.8
8			
9			
10			
11		Retirement of Authorizations from Completed Programs:	
12		(74.9) DE RFP ⁸	(74.9)
13		(26.9) Standard PBI (2009 - 2012)	(26.9)
14		(18.5) School & Government PBI (2011-2012)	(18.5)
15		Retained for Expanded School and Government PBI ⁹	17.0
16		Total Remaining Lifetime PBI Authorization	668.5

Line No.	PBI Amortization Schedule			
	2015	2016	2017	2019
17				
18	Total PBI Commitment \$	668.5	\$ 668.5	\$ 668.5
19	Cumulative PBI Incentive Payments	98.2	139.1	179.8
20	Annual PBI Payment (Projected)	40.9	40.8	40.2
21	Remaining PBI Commitment \$	529.4	\$ 488.6	\$ 408.4
22				

- Notes:**
- Pursuant to Decision No. 71459, APS was authorized a total lifetime PBI Budget Authorization cap of \$250 million for the DE RFP.
 - Pursuant to Decision No. 72022, APS was authorized to commit \$25 million of its DE RFP authorization to the Innovative Technologies Program.
 - Pursuant to Decision No. 71254, the total lifetime PBI budget through and including 2009 is \$220 million of total contract commitments.
 - Pursuant to Decision No. 71459, APS was authorized an additional \$100 million per year lifetime commitment authorization.
 - Pursuant to Decision Nos. 72022 and 72174, in 2011, APS committed \$27 million of its Lifetime PBI Budget Authorization towards the Schools and Government program.
 - Pursuant to Decision No. 72737, \$30 million allocated to non-residential PBI and \$65.8 million to 2012 S&G.
 - Pursuant to Decision No. 73636, ACC authorized \$6M in new PBI program funds and a shift in \$23.5M of unallocated DE RFP funds to support anticipated 2012 S&G program needs.
 - Includes \$25M previously allocated to Innovative Technologies and \$49.9M in project commitment reduction due to cancellation of a portion of the DE RFP program.
 - Additional lifetime PBI authorization to complete program approved pursuant to Decision No. 72737.

Exhibit 3D: Third Party APS IP Renewable Generation RES Costs (\$/MWh)

Line No.	2015	2016	2017	2018	2019	Line No.
1	Existing Contracts: Solar: Ajo Prescott Badger Gillespie Saddle Mountain Solana CSP					1
2						2
3						3
4						4
5						5
6						6
7						7
8	Wind: Aragonne Mesa High Lonesome Perrin Ranch					8
9						9
10						10
11	Geothermal: Salton Sea/CE Turbo					11
12						12
13	Biomass/Biogas: Snowflake White Mountain Power ¹ Sexton (Glendale Landfill) Northwest Regional Landfill Gas					13
14						14
15						15
16						16
17	[REDACTED]					17
18						18
19						19
20						20

Notes:

¹ This project is split between Renewable Generation (RG) and Distributed Energy (DE).

Exhibit 3E: AZ Sun Program RES Revenue Requirements (in \$M's) ^{1, 2}

	<u>MW</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Hyder II	14	\$ 6.1	\$ 2.9	\$ -	\$ -	\$ -
Chino Valley	19	8.2	3.9	-	-	-
Foothills I/II	35	13.3	6.4	-	-	-
Gila Bend	32	12.1	5.8	-	-	-
Luke AFB	10	4.5	2.4	-	-	-
City of Phoenix	10	2.8	2.1	-	-	-
Redhawk Solar	20	-	4.1	-	-	-
RES Cost Total	140	\$ 47.0	\$ 27.6	\$ -	\$ -	\$ -

Notes:

¹ Assumes a total depreciable life of 30 years.

² Assumes July 2016 rate case adjudication for all Utility Owned Generation (UOG) assets.

ATTACHMENT A



Arizona Public Service Company

Distributed Energy Administration Plan

July 2014

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**ARIZONA PUBLIC SERVICE CORPORATION
2014 DISTRIBUTED ENERGY ADMINISTRATION PLAN**

1. OVERVIEW

The RES requires that a portion of the renewable energy requirements be obtained from distributed energy (“DE”), and that the installed resources result from residential systems and non-residential systems in equal proportions. As part of its RES Implementation Plan, APS facilitated the installation of DE systems partly by providing customers with financial incentives through APS’s Renewable Energy Incentive Program (“REIP”).

Commission Staff initiated the Uniform Credit Purchase Program (“UCPP”) working group in June 2006, and APS participated in all of the working group efforts. The working group made considerable progress towards identifying program workflows, technology sensitive incentive structures and levels, and technology specific requirements and limitations. APS will use the approach and technology requirements developed by the UCPP working group for this Plan. Further, APS has gained considerable experience in program implementation and has used that experience in developing many of the features presented in this Plan and will continue to do so as process improvements are developed.

The Plan and the associated planning models, implementation strategies, and budgeting for the DE program were all designed with specific consideration of the insights provided by the UCPP working group, program implementation and ongoing stakeholder input.

This Plan details the process by which customers will obtain a Solar Water Heating (SWH) incentive, the requirements associated with the selection, installation, and operation of the DE system, and the measurement of DE performance for compliance reporting and program evaluation. This Plan is designed to provide uniformity and consistency in the administration of APS’s DE program.

As part of the RES, the energy generated or displaced by the DE system is applied towards the DE percentage of APS’s renewable energy requirement.¹ The unit used to track kilowatt hours (“kWh”) derived from renewable resources for purposes of compliance with the RES is the Renewable Energy Credit (“REC”).² One REC equals one kWh or kWh equivalent (for systems that do not generate electricity). This method will continue to be used until a new value method has been approved by the Commission for tracking RES compliance.

This Plan will ensure that each customer installing SWH will be afforded the opportunity to obtain a reservation. The processes described herein are based on technologies and systems with which APS has considerable experience. Technologies, incentive configurations, and development models which are newly incorporated may require special consideration until new implementation strategies and methods can be defined.

¹ A.A.C. R14-2-1805(B).

² A.A.C. R14-2-1801(N) – “Renewable Energy Credit” means the unit created to track kWh derived from an Eligible Renewable Energy Resource or kWh equivalent of Conventional Energy Resources displaced by Distributed Energy Renewable Resources.

The following DE technologies are eligible for incentives as of January 2014:

- Solar Water Heating (“SWH”)

2. PROJECT CATEGORY

2.1 Standardized Projects

Unless noted otherwise in this Plan, all information contained herein applies to the administration of standardized projects. By definition, standardized projects follow the procedures and incentives described in this Plan. Incentives, if available, for these projects are described in Exhibit 1. APS anticipates that the vast majority of projects facilitated by this Plan will be standardized projects. The processes described for the standard projects are based on technologies and systems with which APS has considerable experience; technologies and incentive configurations, if available, which are newly incorporated may require special consideration until new implementation strategies and methods can be developed.

2.2 Customer Self-Directed

The Customer Self-Directed project funding option is available to eligible customers.³ The eligible customer must declare that it will self-direct on or before March 31 of the year prior to the year for self-direction. Customer Self-Directed funds can only be requested for prospective years, funds cannot include prior year payments, and funds cannot exceed the level of funding paid by the eligible customer towards the RES in the year prior to the requested allocation.

In order to be eligible for the incentives detailed in this Plan (Exhibit 1), Customer Self-Directed projects must achieve similar financial efficiency as the standardized and market-based projects discussed above. If the eligible customer wishes to apply Customer Self-Directed funds to a DE system or another application not described in the applicable Incentive Matrix, the customer must submit documentation describing the project economics and the requested incentive level. All projects proposed for Customer Self-Directed funding must meet the requirements described in the RES.⁴

Eligible customers who have facilities in the service territories of more than one affected utility can only apply for funds from APS that were collected by APS. The funds obtained from APS can only be used for projects in APS’s service territory. Customer Self-Directed projects are also subject to the general requirements set forth in this Plan including installation, operation, REC exchange, and system performance reporting.

For purposes of financing DE projects, funds for Customer Self-Directed projects may be assigned to third parties. Such assignment remains the sole right of the customer.

³ A.A.C. R14-2-1801(H) – “Eligible Customer” means an entity that pays Tariff funds of at least \$25,000 annually for any number of related accounts or services within an Affected Utility’s service area.

⁴ A.A.C. R14-2-1809.

2.3 General

Under some circumstances, such as new residential or non-residential construction, a project may not identify the account holder for the APS billing meter at the project site or the party holding legal right to the property in APS territory where the DE system will be located (referred to in the remainder of this Plan as the "Participant") at project initiation. Regardless of the project design, implementation, or timeline, a Participant must have installed a system that is ready for commissioning, have established an account to receive electrical service from APS before the incentive, if available, will be paid.

2.4 Residential Leased System:

Residential applicants are required to notify APS if a residential reservation application is for a leased system during the application process. The Lessor for residential applications must be registered with APS.com prior to a participant requesting an application so that Participants may identify the Lessor in the online application. Participant must also disclose to APS the length of the lease: any lease term less than 20 years submitted after June, 15th, 2010 will be denied by APS, and APS will send a written notification of this application deficiency where applicable. The Lessor, or owner, of a leased system will be required to submit a W-9.

Until such time as residential leased agreements are made available for signing within the online application, APS will require the Participant to submit a Leased Interconnection Agreement. For systems receiving an incentive, all forms must be completed and submitted to APS before the inspection will be scheduled.

3. INCENTIVE TYPES, IF AVAILABLE

Up-front Incentives (UFIs) are those incentives, if available, where the Participant receives a one-time payment based on the DE system's designed capacity, or a one-time payment based on the first-year energy savings provided by the DE system. This type of incentive, if available, is applied to both non-residential and all standard residential installations. Residential incentives, if available, will be paid directly to the installer.

4. PROGRAM REQUIREMENTS

Requirements detailed in this Plan are designed to provide clarity for program Participants and DE developers, to increase the certainty of energy generation and, as a result, production of the RECs for APS's compliance with the RES, and to ultimately drive cost-effectiveness for the DE requirement in the RES.

4.1 General

This program is designed to facilitate Participant installation of DE resources to displace Conventional Energy Resource usage.⁵ Systems must be located on the Participant's property.

⁵ A.A.C. R14-2-1801(C) – "Conventional Energy Resource" means an energy resource that is non-renewable in nature, such as natural gas, coal, oil, and uranium, or electricity that is produced with energy resources that are not Renewable Energy Resources."

All systems must be in APS territory. Gas customers within the APS service territory will only qualify for an incentive from one utility – to obtain a SWH incentive from APS, Participants must certify that they will only seek one incentive.

Funding is not guaranteed without confirmation of a reservation from APS. The Participant must follow the reservation procedure outlined in this Plan for APS to allocate incentive dollars, if available, for the specific DE system proposed. If a Participant is receiving electrical service from APS, the Participant must not be delinquent in payments to the Company before an incentive payment can be issued.

Specific funding allocations or funding cycles, if available, are used during any given year to implement the DE incentive program. Once funds have been exhausted in any one category or cycle, applications that were not funded may be put on a waiting list, or they may be considered in subsequent funding cycles during the same year. APS customers may only have one active application submitted per meter for a specific technology at any given time. No future request may be applied to that project or the same technology until the original request has expired.

4.2 Installation and Equipment Specifications

Systems receiving incentives under this program (if available) must be installed according to program requirements, including manufacturers' recommendations and generally accepted industry standards. Installation of the system must be completed by an installer meeting the requirements described in Section 5 of this Plan. In addition, the dealer for the system must meet the requirements described in Section 5 of this Plan. Other requirements which are applicable under this Plan include, but are not limited to, the following:

- The project must comply with all applicable local, state, and federal regulations.
- Installations must meet applicable governmental statutes, codes, ordinances, and accepted engineering and installation practices.
- Systems must be permitted with and pass inspection by the authority having jurisdiction (“AHJ”) over construction projects in the Participant’s locale, or, if the site is not governed by an AHJ, the Participant must provide a certification in lieu of AHJ clearance.
- .
- Domestic Solar Water Heater systems will be subject to an APS sponsored inspection to ensure that the installation meets the required guidelines.
- APS may request copies of any documents to assure compliance with government, institutional, or DE program requirements that are either explicitly or implicitly described by this Plan.

Distributed energy projects such as SWH systems are to be used to offset the Participant’s load.

All major components of the DE system must be new and must not have been previously placed in service in any other location or for any other application. A DE system purchased and installed more than 180 days before the date that APS reviews the reservation request will not be considered “new” under this Plan. APS may consider exceptions to this timeframe when justified by the Participant in writing. The DE system must also comply with the technology-

specific criteria detailed below. When technology-specific criteria reference third party standards, the requirements of those standards are fully applicable.

The rapid growth in national and international renewable energy programs is resulting in greater need for the development of standardization in design, performance measurement, system integrity/longevity/maintenance, and installation techniques. New standards are likely to develop in the near future for technologies included in the DE program, and APS reserves the right to incorporate new standards into plan requirements as necessary and appropriate.

The following standards or standard development bodies are referenced as part of the technology specific criteria.

- The Active Solar Heating Systems Design Manual developed by the American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. (“ASHRAE”) in cooperation with the Solar Energy Industries Association (“SEIA”) and the ACES Research and Management Foundation (the “Design Manual”).
- Arizona state boiler regulations (A.A.C. R20-5-401 to R20-5-420).
- Select technology specific qualification requirements developed by Go Solar California (“GSC”).
- Solar Rating and Certification Corporation (“SRCC”). The SRCC criteria and ratings can be viewed at www.solar-rating.org.
- The International Association of Plumbing and Mechanical Officials (“IAPMO”). The IAPMO ratings can be viewed at www.iapmo.org.
- American National Standards Institute (“ANSI”)
- Nationally Recognized Testing Laboratory (“NRTL”)
- The Underwriters Laboratory (“UL”).

The technology standards are relied upon, in part, to develop a clear understanding of the DE system capacity, energy savings and expected energy production. Incentives offered under this program, if available, are based on these system parameters. Therefore, to encourage transparency in program transaction and clarity for Participants, current and accurate technology standards are fundamental to the program’s success.

Some technologies included as DE under the RES tend to be designed as custom applications and vary from installation to installation. In other cases, technologies are generally standardized for all installations. In these situations, installation standards have been published under the end-use application. If no technology-specific standard is referenced, at a minimum, to qualify for DE incentives, an Energy Savings and Designed Output (“ES&D”) report is required for non-residential installations as part of the reservation process.

The ES&D report must include either a testing certification for a substantially similar system prepared by a publicly funded laboratory, or an engineering report stamped by a registered professional engineer. The ES&D report shall provide a description of the system and major components, designed performance, system output, and a brief history of the components used in similar applications. If the system design differs from the recognized industry best practices, as described in the equipment qualifications listed in the Plan for the qualifying technology, the ES&D report must contain a certification that the system design is at least as effective as the

specified requirements. For residential new construction, only one ES&D report is required per technology for each floor plan offered in the development for which the incentive is being requested.⁶

Where the equipment qualifications detailed below are required for program participation, the technology specific installation guidance is provided to program participants to convey information on installation and operation practices that are most likely to achieve the DE system's designed output. The requirements described herein are not intended as engineering recommendations, services, or technical advice. Engineering recommendations, design, and performance data will be provided to the Participant by their supplier, installer, or professional advisor. Although installation guidance is not currently mandated for a project to receive an incentive, the guidance does reflect both industry and utility concurrence on those practices that are important for a technology to best achieve the designed output. APS reserves the right to modify equipment qualifications and/or installation guidance if APS becomes aware that such qualifications or guidance results in unsafe conditions, provides inappropriate results for the customer, or is inconsistent with program objectives.

4.2.1 Non-residential Solar Water Heating

Equipment Qualifications

A complete ES&D Report must be submitted that includes certification that solar collector panels used shall have a SRCC OG-100 certification or laboratory documentation showing the panel energy output under controlled and replicable test conditions.

Installation Guidance

- The horizontal tilt angle of the collector panels should be between 15 and 60 degrees and the panel orientation should be between +/- 45 degrees of south.
- All systems should be installed such that the energy collection system is substantially unshaded, and systems should have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.
- Active, open-loop systems are not eligible for incentives except for active, open-loop systems that have a proven technology or design that limits scaling and internal corrosion of system piping, and includes appropriate automatic methods for freeze protection. Details disclosing conformance with this exception shall be submitted as part of the ES&D report or manufacturer's verification documentation.

4.2.2 Residential Solar Water Heating

Equipment Qualifications

⁶ Any deviations from the standard floor plan that the ES&D report was originally approved for will require re-submission of an ES&D report.

- Domestic Solar Water Heating systems must be tested and certified to the OG-300 standard by the SRCC or an APS approved NRTL or ANSI and have a rating that is accompanied by the certified system design schematic.
- The ‘high’ temperature limit shall be set at a maximum of 160 degrees Fahrenheit.
- Contractors must provide a minimum five year equipment warranty as provided by the system manufacturer, including a minimum warranty period of two years for repair/replacement service to the Participant. The remaining operational life must be supported by a planned maintenance or equipment replacement schedule.
- Systems shall be selected and sized according to the geographic location and hot water needs of the specific application.
- Active, open-loop systems are not eligible for incentives except for active, open-loop systems that have a proven technology or design that limits scaling and internal corrosion of system piping, and includes appropriate automatic methods for freeze protection. Details disclosing conformance with this exception shall be submitted as part of the manufacturer’s verification documentation.
- Integrated collector storage (“ICS”) systems shall have a minimum collector piping wall thickness of 0.058 inches. Details disclosing conformance with this requirement shall be submitted as part of the manufacturer’s verification documentation.

Installation Guidance

- All systems should be installed such that the energy collection system is unshaded, and systems should have substantially unobstructed exposure to direct sunlight between the hours of 9 am and 3 pm.

Incentive (%)	Tilt (in degrees)	Measured from North	Variation from South
		Azimuth (in degrees)	APS Azimuth (in degrees)
0	> 0	0-90	90-180
80	0-33	90-150	30-90
80	0-17	150-210	0-30
100	18-47	150-210	0-30
80	48-75	150-210	0-30
80	0-33	210-270	30-90
0	> 0	270-360	90-180

4.3 Inspections

All residential solar water heating systems will be required to pass program inspections. The systems will be examined to ensure the system is installed safely and according to the approved OG-300 standard installation guidelines. Payment of incentive funding is contingent on

successful passage of the APS inspections APS will conduct the inspection only after the system has passed inspection by the AHJ.

APS reserves the right to randomly select some DE Program installations whose systems will receive a maintenance inspection to field verify that the system is being operated in compliance with the terms and conditions agreed to in the Reservation Request and Credit Purchase Agreement and the requirements outlined in this Plan. The purpose of the maintenance inspection is to gather information that will assist APS in its evaluation of the effectiveness of the DEAP.

4.4 Metering and Meter Reading

All DE systems must include a system dedicated kWh meter, or meters, which allows for measurement of system energy production (the "Performance Meter"). The Performance Meter must be installed in compliance with the APS Electric Service Requirements Manual (ESRM) Section 300, which is available on APS's website, and must be installed so as to record the renewable energy A/C power output produced by the inverter or generator. If Performance Meter output data is used to calculate a PBI, other metering arrangements may be required depending on the configuration of the system. These arrangements may include wireless or telephone line telemetry at the customer's expense. The Performance Meters are in addition to the APS billing meter and must be appropriately identified as the "Photovoltaic, Wind, etc., Performance Meter." The Performance Meter must be calibrated to meet industry standards and must provide either direct kWh readings or readings which can readily be converted to kWh using standard engineering conversions. The Performance Meter is required to be located adjacent to the APS billing meter unless otherwise approved by APS.

In those circumstances where the DE system is a hybrid system (i.e., uses more than one technology), APS requires that a Performance Meter be in place to measure the kWh produced from each renewable resource so that the information can be accurately recorded.

APS may, at its discretion, install APS-owned Performance Meters for system monitoring purposes. A Performance Meter owned and read by APS may facilitate APS's ability to gather performance data and to report system performance to the Participant on their standard APS bill.

System generation (REC production) must be reported annually to APS for UFI Participants, unless other arrangements have been approved by APS or the ACC. Participants utilizing PBIs will be provided with monthly system production on a quarterly basis. The reported production is to be verified by the participant or authorized representative and returned to APS along with the REC documentation. Payment for system production will be made on a quarterly basis following APS's receipt of the REC documentation and production verification.

For compliance reporting purposes, all systems with a production meter installed on or before December 31 of the prior reporting year will be reported on actual production of the system. All systems with a production meter installed on or after January 1 of the current reporting year will be reported on an annualized basis determined based on the average production of the metered systems. If a system with a production meter fails to produce as expected, only actual energy produced will be counted towards compliance. For example: if a system is disconnected or a customer chooses not to repair a broken system, APS will only count the actual production.

4.5 REC Ownership

As part of APS's payment of a UFI, the utility will be given complete and irrevocable ownership of all RECs expected from system production for 20 years, the expected or planned effective life of the DE system. RECs provided to APS as a result of a DE system installation will be applied towards APS' RES targets.

4.6 System Maintenance

To ensure a system benefit received by the REC acquisition, APS requires that the Participant maintain and operate the DE system in APS territory for the specific duration detailed in the Reservation Request and Credit Purchase Agreement. If the DE system either needs to be removed from the Participant property or if it is no longer operational, the Participant must notify APS within five business days after the DE system is either removed from the property or is no longer operational. Short (those lasting less than one month) system "outages" as part of system repair or planned maintenance are anticipated as part of this program and need not be reported in accordance with the above requirement.

5. INSTALLER AND DEALER QUALIFICATIONS

The installer must possess a valid license on file with the Arizona Registrar of Contractors ("AZROC"), with a license classification appropriate for the technology being installed, or the installer must identify use of a contractor holding an appropriate license on file with the AZROC for the technology being installed.

If the equipment dealer is a party to the reservation request, the dealer must provide proof of possession of a business license that is in good standing with the appropriate agency (ies) and must also provide proof of liability insurance if the business license provided does not require liability insurance.

Installer has sole responsibility of informing APS in writing of any employee or company changes.

6. INCENTIVES, IF AVAILABLE

6.1 Funding Allocation

As described in historical RES Implementation Plans, the annual funding level for DE incentives has been established primarily based on previous year program installations and reservations with consideration for estimates of anticipated consumer demand for the various technologies, project sales and development time frames, variations in the levels of technology maturity, and availability of equipment for installation.

Funds, if budgets are approved, are made available for residential or non-residential project reservations on the first business day of the most current ACC approved budget.

As always, up-to-date incentive levels and budget status can be found on APS.com. The approved incentive budgets for 2014 are:

RESIDENTIAL UFI - \$400K /NON RESIDENTIAL - \$100K			
Technology	Beginning Budget	Incentive Level	Notes
Solar Water Heating (SWH)	\$500K	\$.30/kWh	Beginning September 1 st . all remaining funds will be awarded first come first serve. Projects are capped at 50% of the total project cost

6.2 Incentive Principles

As part of this Plan, both residential and non-residential SWH systems are only eligible for UFIs.

6.3 Standardized Incentives

Incentives levels provided as part of this Plan were collaboratively developed, and, in part, were created to help or expand incipient markets for DE, taking into account each technology's specific market conditions, and placing a portion of the cost on the Participant. Incentive levels, if available, are provided in accordance with the applicable year project incentive, as outlined in Exhibit 1.

6.4 Taxes

Program participants are solely responsible for the payment of any and all taxes applicable to the DE resource and/or the incentive payment(s).

6.5 Assignment of Payment

Systems may be owned by third parties, and in the case of non-residential Participants, APS may make payments to such third parties upon the written consent of the Participant. Participants may assign payments to an installer, dealer, or developer. APS will consider assignment to other parties upon request by the Participant.

APS will automatically pay the REC incentive to the installer so as to buy down the cost of the system for the Participant.

6.6 Default

If the Participant fails to maintain and operate the DE system in APS territory for the period detailed in the Credit Purchase Agreement, which is never less than ten (10) years, the Participant shall be considered in default of the terms and conditions of the incentive payment agreement. Participants in default will be subject to damages and must reimburse the Program for all or a portion of the incentive(s) received to that point, subject to the terms of the Credit Purchase Agreement. The default terms in the Credit Purchase Agreement are designed to

reimburse the Program for environmental credits that were paid and/or accounted for through the full incentive term, but not received. This is especially important for UFIs where APS is entitled to 20 years of credits through the payment of one up-front incentive.

7. RESERVATION PROCESS OVERVIEW

PLEASE NOTE: For the residential incentive program, Installers, Dealers, Lessors, and utility customers/Participants must be registered with aps.com prior to requesting an incentive application. Furthermore, all applications must be within APS service territory. Gas water heater customers within the APS service territory will only qualify for an incentive from one utility. Participants with gas water heaters will be required to certify that they will apply for only one incentive.

Participant submits application to APS: The Participant must submit a signed application supplied by APS. APS will review the applications in the order received.

Executed Contracts: All program applications are required to be accompanied by a complete executed contract between themselves and the developer/contractor for the installation of the proposed renewable technology.

Participant receives reservation confirmation: After reviewing the application, APS will, based on funding availability, issue a reservation. APS will send a written confirmation to the applicant.

If the application is deficient in meeting one or more of the program requirements, APS will inform the Participant of the nature of the deficiency and may allow the Participant to correct the deficiency. If the application is denied because funding is not available, the request may be placed on a waiting list and APS will notify the applicant.

Participant (or applicable party) must submit a W-9: APS will require Participant (or applicable party) to submit a W-9 form. The W-9 must be completed and submitted back to APS prior to the final incentive payment. As a result, APS will issue the Participant (or applicable party) a 1099 to assist with the Participant's claim of the federal investment tax credit. Additional IRS forms may be required.

Credit Purchase Agreement: Non-residential participants must execute a Credit Purchase Agreement within 45 days of the date of the reservation confirmation from APS. At the time of application, the customer must also provide a complete executed contract between themselves and the developer/contractor for the installation of the proposed renewable technology. Residential Credit Purchase Agreements are executed at time of application (see section 2.4 for leased systems).

Proof of Advancement: The Participant may be required to submit Proof of Advancement (written progress report) to APS within 120 days of reservation approval for UFIs, and within 180 days of reservation approval for PBIs to retain the reservation. The purpose of the Proof of Advancement requirement is to ensure that reservation dollars are allocated to projects that will advance to the installation stage. Reservations requiring Proof of Advancement will be notified at the time of reservation approval.

Interconnection Application: Residential installer applications and 3-line site plan diagrams are submitted to APS. Non-Residential Interconnection Applications, along with AHJ approved drawings, must be submitted within 90 days for UFI and 120 days for PBI's, of reservation date.

Participant Proceeds with Installation: The Participant must obtain all required permits, and then proceed with system installation.

Grid-tied systems: Systems are required to pass an interconnection inspection that will be conducted by APS before the system can be authorized to operate in parallel to the APS grid. APS will conduct the interconnection inspection/ only after the system has been inspected by the AHJ or if APS has received a Letter in Lieu of Electrical Inspection. If the DE system passes the interconnection inspection, APS will provide the Participant with a written document that provides "Permission to Operate." If the DE system fails the interconnection inspection, the reservation can remain active, as long as the deficiency is remedied within the defined reservation timeframe.

Commissioning Packet: Participant must submit a signed Commissioning Packet supplied by APS. At a minimum, the Commissioning Packet will include certification from the installer/dealer and Participant that the system installed was consistent with the terms and conditions of the Reservation Packet and this Plan. If a material change was made between the time APS approved the reservation and the date APS received the Commissioning Packet, the Participant must complete an Amended Application. If the change increases the incentive amount the system is eligible to receive, APS will confirm that DE program funding is available. If funding is not available, APS will only provide an incentive in the amount requested in the Reservation Packet. Changes in the project plan that result in increased system output will only result in additional incentives beyond the original reservation amount if RES funding is sufficient/available.

All installations will be inspected. For systems receiving an incentive, the incentive payment will not be processed until after the system has passed the inspection and all applicable paperwork has been received.

APS sends incentive payment: For all up front incentives, APS will send the incentive payment or initiate incentive payments upon successful inspection and submission of all required documents, including but not limited to W9, final paid invoice, installation and equipment certifications.

8. EXTENSIONS AND CANCELLATION POLICY

A Participant will be notified of a reservation cancellation if all program requirements have not been met during the reservation timeframe. The reservation timeframe for UFIs is 180 days from the reservation confirmation date to final completion and/or interconnection. Upon APS's sole discretion, the Company may grant a 30 day extension following timely receipt of a Participant's request for extension, up to a maximum of three extensions. All extension requests must be received before the reservation expiration date. Requests must document justification for the extension and must detail one of the following: 1) delays caused by APS or affiliated parties, 2) outstanding AHJ requirements, or 3) documented limitations on available material resources for

the project where material orders occurred within the reservation timeframe. APS may request additional support for the Proof of Advancement to be considered the extension. The Company may approve written extension requests beyond 30 days only under extenuating circumstances. Current APS extension forms must be used to make a formal extension request located at APS.com/gosolar (located under 'Forms and Resources').

If a residential Participant changes installers, the Participant must reapply.

9. ENERGY REPORTING PROGRAM MONITORING

APS will track progress toward program goals on an ongoing basis to monitor program effectiveness and sufficiency of the funding allocation. APS will compile data received from conducting the conformance and maintenance inspections, meter readings, and analyze trends in Participant participation and technology installation. The data will be evaluated on an ongoing basis to better understand critical factors impacting the incentive structures and the overall effectiveness of this Plan. If the DEAP needs to be adjusted to reflect new information, changing market conditions, incorrect initial assumptions, or technological innovations, APS will bring those issues to the attention of the Commission in a timely manner.

APS will report on the productivity of all distributed resources on an annual basis. For PBI systems, APS will report on the actual metered production of each system as reported by the Participant and confirmed by APS. For systems receiving a UFI, APS will report on the total installed capacity and projected productivity. APS will develop a method by which to calibrate the reported productivity and shall monitor that method for long-term accuracy.

On occasion, a DE system which received a UFI will be removed from the Participant property prior to the end of its agreement term without the permission of the utility. Also, on occasion, a DE system, which had received a UFI, will be in need of repair which the Participant does not plan to complete. If either situation occurs, and if despite reasonable efforts on the part of the APS the Participant will not reinstall or repair the DE system, then APS will continue to reflect in its annual compliance reporting the annual historic energy production for the system until the agreement term for the system has been completed.

In addition, APS will monitor that specific Participant and property to ensure that an additional incentive is not provided for any new DE system on that property until the operational life of the incented system has been completed. APS will attempt to monitor the number of missing and unrepaired DE systems and shall summarize its observations in its annual compliance report.

EXHIBIT B

Summary to APS's 2015 Renewable Energy Standard Implementation Plan

The 2015-2019 Renewable Energy Standard (RES) Implementation Plan ("Plan") requests funding approval for existing program commitments and deployment of previously authorized programs, as well as requests funding approval for new programs. APS expects to achieve compliance with its 2015 RES requirements and maintain its renewable energy obligations in 2015 in accordance with APS's 2009 Settlement Agreement (2009 Settlement), provided all the resources discussed herein are authorized and continued as previously approved in prior Commission decisions.

APS is required by the RES to achieve 5.0 percent of retail sales with renewable resources by 2015, increasing annually to 9.0 percent in 2019. The 2009 Settlement required, among other provisions, "that Arizona Public Service Company shall acquire new renewable energy resources with annual generation or savings of at least 1.7 million Megawatt hours to be in service by 2015..." It further states that "These new resources shall be in addition to existing resources or commitments as of the end of 2008, as identified in APS's 2008 RES Compliance Report..."

Renewable Generation

In Decision No. 74237, the Commission authorized APS to move ahead with 20 MW of Renewable Generation projects under the AZ Sun Program – Luke Air Force Base (10 MW) and City of Phoenix (10 MW). APS has issued a Request for Proposal (RFP) and expects to place the projects in-service by the end of 2015.

Also in Decision No. 74237, the Commission ordered APS to submit information regarding whether it would be necessary to continue the final 30 MW phase of AZ Sun in order to comply with the 2009 Settlement Agreement. On April 15, 2014, APS responded to the Commission's inquiry, indicating 20 MW of the final 30 MW phase of AZ Sun would be necessary to ensure that the Company can meet compliance, given the uncertainty of the distributed generation market. APS is proposing in this plan that the Company be authorized to proceed with the construction of a 20 MW utility-owned solar project to be located at APS's Redhawk Power Station. If approved, the Company expects the project's in-service date to meet APS's 2009 Settlement obligation in the end of 2015.

Distributed Energy

Consistent with ACC requirements on incentive funding step downs and APS performance with the DE requirements, APS ceased offering direct cash incentives for residential and non-residential solar PV grid-tied resources as of the end of 2013. APS is not requesting any new solar PV grid-tied resource incentives in the Plan.

Based upon currently installed resources and commitments from previously approved program budgets as of year-end 2014, APS projects it will be in compliance with non-residential energy targets through 2020 and residential DE energy targets through 2016. This forecast does not include RECs associated with non-incented DE installations. Through the end of May 2014, 3,354 residential PV systems for 33.8

MWac and 162 non-residential PV systems for 3.9 MWac have been installed and interconnected without receiving a direct cash incentive.

In this Plan, APS is seeking authorization for two distributed energy programs, including 1) an extension of the existing solar water heating incentive program and 2) a battery-solar PV integration research and development program.

Budget

The budget for APS's 2015 Plan consists of funding for previously authorized programs including PBI legacy payments, purchased power and revenue requirement costs, and prior initiatives currently being implemented; as well as requests for additional funding for proposed programs.

APS expects the total base budget for PBI and other DE legacy costs, PPA projects, and APS-owned projects in 2015 to be \$153.8 million and the five year total for the 2015-2019 Plan to be \$562.1 million, not including any funding offsets.

RES Adjustor

In Decision No. 75237, the Commission approved collections from the RES adjustor to expand from three to five customer categories. In this Plan, to address Commission and customer concerns in the extra small commercial and industrial classes, APS proposes adding a 'bifurcated floor and cap' structure to the extra small/small commercial category. To show the impact of altering the current five customer class approach, APS provides three examples of possible adjustor cost allocations for the Commission's consideration.

EXHIBIT C

Arizona Public Service Company

**2015-2019 Renewable Energy Standard
Implementation Plan**

July 1, 2014



2014 RES Implementation Plan Overview

- APS expects to achieve compliance with its 2015 RES requirements and maintain its renewable energy obligations in 2015 in accordance with APS's 2009 Settlement Agreement, provided all the resources discussed in the Plan are authorized and continued as previously approved in prior Commission decisions.
- Requests a \$153.8M budget (\$123.8M through RES adjustor) to meet prior commitments, on-going programs, and new programs

Renewable Generation

- AZ Sun program – approved Luke Air Force Base (10 MW) and City of Phoenix (10 MW). APS has issued a Request for Proposal (RFP) and expects to place the projects in-service by the end of 2015.
- Requests authorization to proceed with the construction of a 20 MW utility-owned solar project to be located at APS’s Redhawk Power Station. If approved, the Company expects the project’s in-service date to meet APS’s 2009 Settlement obligation in 2015.

Distributed Energy

- APS projects it will be in compliance with non-residential energy RES targets through 2020 and residential DE energy RES targets through 2016.
- Through the end of May 2014, 3,354 residential PV systems for 33.8 MWac and 162 non-residential PV systems for 3.9 MWac have been installed and interconnected without receiving a direct cash incentive.
- APS is seeking authorization for an extension of the existing solar water heating incentive program and a new battery-solar PV integration research and development program.

RES Adjustor Proportionality

- To address Commission and customer concerns in the extra small commercial and industrial classes, APS proposes adding a 'bifurcated floor and cap' to the current extra small/small category.
- APS provides three examples of possible adjustor cost allocations for the Commission's consideration
 - o Example 1 - Current 5 categories
 - o Example 2 - Current 5 categories with addition of a 'bifurcated floor and cap' for the extra small/small category
 - o Example 3 - A kWh only rate with no caps

Program Administration

- APS is on track to comply with Decision No. 72737 requirement to install production meters to track data for RES compliance
 - As of the end of May 2014, nearly 21,000 production meters had been installed. By the end of 2014, APS expects production meters will be installed on all PV systems previously placed in service.
- The DEAP has been rewritten to reflect current Commission policies and programs