



Arizona Public Service Company

**2011 AZ Sun
Request for Proposal (“RFP”)**

October 3, 2011

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A. OVERVIEW

1. Background

- a. AZ Sun Program. The AZ Sun Program was approved by the Arizona Corporation Commission (“ACC”) on March 17, 2010 (Decision No. 71502), which authorizes APS to develop and own 100 megawatts ac (“MW”) of photovoltaic generation with an investment of up to \$500 million between 2010 and 2014 (the “100MW AZ Sun Program” or the “Program”). This solicitation serves as the third requisition in a series of solicitations designed to implement the Program. The Program is a function of the Renewable Energy Standard codified at A.A.C. R14-2-1800 et. seq. (“RES”) approved by the ACC. To date, APS has procured 83MW of the authorized 100MW.
- b. Program Goals. The Program was created to attract economies of scale, placement of resources where they will offer the greatest benefit to APS customers, easier financing for developers supported by APS’ balance sheet, and increased certainty that projects will be developed according to plan.
- c. RES Implementation Plan. APS recently filed its 2012 RES Implementation Plan with the ACC and is seeking approval for the expansion of the Program. APS has proposed another 100MW to be developed between 2013 and 2015. In the event that APS receives regulatory approval for such program expansion APS may, in its discretion but consistent with the principles of an open and fair solicitation process, increase the product capacity to be procured through this RFP.

2. Purpose

- a. Proposal Guidelines. In this RFP, APS is seeking competitive proposals (each a “Proposal”) for the complete development, construction and startup of a single 17MWac utility-scale photovoltaic solar facility engineered, procured and constructed in accordance with APS

requirements as defined in this RFP and the EPC Agreement, to be interconnected at the 69kV level to be owned by APS on a site to be provided by APS in Yuma County, Arizona. This is referred to herein as a “Turnkey” Proposal. Persons or entities responding to this RFP are referred to herein individually as a “Respondent” or “Bidder” or collectively as “Respondents” or “Bidders.” APS encourages the submission of Proposals representing the photovoltaic technology described in paragraph A(4)(a) below. APS will only accept Turnkey Proposals. APS is NOT seeking proposals for the sale of energy from third-party owned generation resources in this solicitation. A Respondent may submit more than one Proposal subject to the provisions of the Bid Submittal section of this RFP (section B).

- b. Eligibility of APS Corporate Affiliates. APS corporate affiliates are NOT eligible to bid in this RFP.
- c. Eligibility of Sites. APS will NOT consider any Proposal for a facility to be developed on a site different than the site provided by APS for the purpose of this solicitation.
- d. Additional Services. APS is NOT seeking proposals for services in addition to what is identified in the EPC Agreement. For example, Operations and Maintenance services will not be considered.
- e. Independent Monitor. An independent monitor (“IM”) will be used in the RFP process to ensure that it is conducted in a fair and equitable manner. The IM will have access to all documentation provided by the Respondents in relation to this RFP and will produce a final report summarizing its observations for use by APS, which may be submitted to the ACC in connection with APS’ regulatory requirements.

3. RFP Website and PowerAdvocate

In order to participate in this RFP process:

- a. Registration. Respondents must register online via <http://www.aps.com/rfp> (the “RFP Website”). Registration will enable each Respondent to access

all RFP related documents, and to receive relevant messages and notices from APS through a web-based platform hosted by a third party (“PowerAdvocate”). APS will use PowerAdvocate for the acceptance and sorting of all Proposals. PowerAdvocate is a web-based platform on which RFIs and RFPs are hosted and is currently used by numerous U.S. utilities. PowerAdvocate is subject to a confidentiality agreement with APS that prohibits the disclosure of confidential information submitted via the platform to unauthorized third parties. APS encourages each Respondent to carefully review the PowerAdvocate Terms of Use before submitting a Proposal. The Terms of Use are located at the following web address: <https://www.poweradvocate.com/web/terms-of-use.html>.

- b. Communications. All communications from Respondents to APS, including questions regarding this RFP, should be submitted via the PowerAdvocate messaging system. Based upon the nature and frequency of the questions APS receives, APS will choose to either respond to individual Respondents directly, post a response to the question on PowerAdvocate (without disclosing the Respondent’s name), or address the question through the Bidder’s Webinar, which is referenced in paragraph A(7) below.
- c. Contact.

The APS official Contact for this RFP process is:

Mark Mullins, APS Resource Acquisition
Arizona Public Service Company
400 N. 5th Street, Mail Station 9674
Phoenix, AZ 85004

This is provided for Respondent information only. Respondents shall not attempt to contact the above person directly. All communication shall be through the PowerAdvocate messaging system.

4. Product Description

Proposals shall be developed based on the requirements described below:

- a. Technology Requirements. The proposed facility must utilize either Crystalline or thin-film (CdTe only) solar photovoltaic technology. APS is NOT seeking proposals utilizing technologies such as solar thermal or concentrated solar PV. Both fixed-axis and tracking systems will be considered. The technology for the proposed facility and key components must have a minimum of twelve (12) months of established production history at a scale of 2MWac or larger.
- b. Quantity. APS will consider Proposals for a facility with a net capacity of 17MWac at Design Point Conditions (DPC) as further defined in the EPC Agreement. The net capacity must represent the expected capacity during the first year of operation, less any line losses or transformer losses once the energy is delivered to the 69kV side of the step-up transformer. The DPC shall be 1000w/m² and 65 degrees C module cell temperature.
- c. Provisional Acceptance Deadline. The Provisional Acceptance Deadline for the proposed facility is March 31, 2013.
- d. Plant Site. The plant site is located in Yuma County, Arizona and will be provided by APS. The enclosed survey is consists of 357 acres, of which approximately 200 acres will be designated for development of this 17MW facility. Respondents are responsible for complying with the permitting requirements of Yuma County, including obtaining a Special Use Permit. The Proposal must be predicated on the use of the plant site. APS is providing the following plant site information to Bidders (via PowerAdvocate) so that they may prepare their Proposals based on site-specific criteria:
 - i. Phase I Assessment
 - ii. Cultural Study
 - iii. Yuma County Special Use Permit Information
 - iv. Survey with Topographical descriptions
 - v. Preliminary Geotechnical Report

5. Interconnection.

- a. General. The facility must deliver capacity and energy by directly interconnecting to the APS sub-transmission (69 kV) system. APS has initiated a FERC Small Generator Interconnection Application for the facility. The enclosed survey identifies a substation location on the project site which will serve as the point of interconnection to the APS sub-transmission system. The application will ultimately be assigned to the successful Bidder after contract execution. The Bidder is expected to manage the interconnection process as part of its scope of services. APS recognizes that the timeline for executing an interconnection agreement is a critical element in the development process. APS does not expect that the interconnection process will interfere with the successful Bidder's ability to satisfy the Provisional Acceptance Deadline specified in paragraph (A)(4)(c) above.
- b. Cost Assumptions. Bidders are required to include a fixed cost allowance in their Proposals for the interconnection facilities to be constructed by the transmission provider (the "Interconnection Cost Allowance"). The Interconnection Cost Allowance shall be three million dollars (\$3,000,000). The Interconnection Cost Allowance shall not be used to satisfy any costs for other work specified in the scope of services, or any project-site related costs. The Interconnection Cost Allowance shall be used only for costs that are required to be paid to the transmission provider for facilities needed based on the applicable transmission studies.

6. Pricing

- a. Terms, Conditions and Pricing. Proposals shall include all costs necessary to deliver capacity and energy from the facility to the APS system including, but not limited to, construction of the facility in accordance with the EPC Agreement referenced in paragraph B(3)(b)(ix) below, transmission costs referenced in paragraph A(5)(b) above, and Credit Support referenced in paragraph A(6)(b) below. All Proposal terms,

conditions, and pricing are binding through the final selection notification and subsequent EPC negotiations, as well as ACC approval (if required and as described in paragraph D(2) below).

- b. Credit Support Costs. Pricing shall contain all costs for credit support. The credit support must be in the form of a letter of credit or cash deposit and must be submitted to APS following contract execution as defined in the EPC Agreement. The amount of required credit support is three and a half million dollars (\$3,500,000).

7. RFP Schedule

The following schedule applies to this RFP:

<u>ACTIVITY</u>	<u>DUE DATE</u>
RFP Issued	October 3, 2011
Bidder's Webinar	October 12, 2011
Fully executed Confidentiality Agreement posted by Bidder to PowerAdvocate	November 23, 2011
RFP Response due and fee submitted	November 30, 2011
Shortlisted Bidders notified	January 2012
Execution of EPC Agreement	March 2012

8. Changes to RFP, Schedules and Addenda

APS reserves the right at any time to unilaterally revise, suspend or terminate this solicitation process and any schedule related thereto in its sole discretion without liability to any Respondent. Any such changes will be posted on the RFP Website and a message will be sent from the PowerAdvocate messaging system to all Respondents.

B. BID SUBMITTAL

1. General Information

- a. Currency. Prices and dollar figures must be clearly stated in United States Dollars.
- b. Schedule. Proposals shall be submitted in strict accordance with the RFP schedule.
- c. Extensions. APS will not grant any extensions to the RFP schedule and will not accept late Proposals. Any Proposal received after the scheduled date will be disqualified and the Respondent will be notified of their elimination.
- d. Reservation of Rights. APS reserves the right to accept or reject in its sole discretion any or all Proposals for any reason at any time after submittal. APS also reserves the right to select an offer that is not the lowest price, if APS determines that to do so would result in the greatest value to APS' retail customers.
- e. Failure to Comply. Failure to comply with all requirements of this RFP will be grounds for rejection of a Proposal in APS' sole discretion.
- f. No Liability. Respondents that submit Proposals do so without legal recourse against APS or its directors, management, employees, agents, contractors or independent monitor based on APS' rejection of any Proposal or for failure to execute any agreement in connection with this RFP. APS shall not be liable to any Respondent or to any other party, in law or equity, for any reason whatsoever relating to APS acts or omissions arising out of or in connection with this RFP.
- g. Return of Documents. None of the materials received by APS from Respondents in response to this RFP will be returned. All Proposals and exhibits will become the property of APS, subject to the provisions of the confidentiality agreement described in paragraph B(2) below.

2. Confidentiality Agreement

Each Respondent must sign a confidentiality agreement (“CA”) and submit it in accordance with the RFP schedule set forth in paragraph A(7) above. The CA is available on PowerAdvocate. Respondents shall execute and post the CA using PowerAdvocate. APS will then execute and return a copy for the Respondent’s records. Any Respondent that fails to have a fully executed CA on file with APS on or before **November 23, 2011** shall be ineligible to submit a Proposal in response to this RFP. APS and the Respondent MUST execute the CA on or before November 23, 2011 in order for such Respondent to be eligible to bid in this RFP.

3. Proposal Content

- a. RFP Submission Fee. A non-refundable RFP submission fee of five thousand dollars (\$5,000) per Respondent is required in order to qualify its Proposal(s) for consideration. Respondents may submit up to two (2) Proposal(s) to allow for varied component applications or configurations (e.g., fixed application proposal and a single axis tracking proposal). If a Respondent wishes to submit more than two (2) Proposal(s), an additional \$5,000 fee is required per every two (2) additional proposals. The fee must be received by the response date shown in paragraph A(7) above and shall be wired using the information below. Any costs or fees associated with wiring the funds shall be paid directly by the Respondent.

Company: Arizona Public Service Company
Bank: Wells Fargo
ABA/Routing No.: 121000248
Account No.: 4159540921
OBI Field: FBO (For Business Of) Respondent's company name

b. PowerAdvocate. Respondents are required to use PowerAdvocate to enter or upload all requested information. **In order for a Respondent's bid to be considered a conforming bid, the Respondent shall post to PowerAdvocate the following documents:**

- (i) Fully Executed CA.
- (ii) A complete response to each question, and a legible copy of each document specified on the commercial, technical and pricing tabs of PowerAdvocate.
- (iii) Executed certification page which demonstrates that the signatory has full authority to bind the Respondent to all of the terms and conditions contained in the Proposal. Respondents must use the certification page posted by APS on PowerAdvocate.
- (iv) A level-one project work schedule, based on an assumed date for contract execution (not earlier than March 31, 2012 and shall be stated clearly in the schedule). The schedule must include all work required for obtaining a Special Use Permit from Yuma County for the purpose of developing this project.
- (v) Conceptual Site Plan
- (vi) A project one-line diagram based on a 69kV interconnection.
- (vii) Completed production profiles using the templates provided by APS and available through PowerAdvocate. Any Respondent proposing a photovoltaic project shall include four (4) hourly (8760) production profiles, which represent the hourly output of the facility at the APS Delivery Point in Mountain Standard Time (MST) for years 2002, 2003, 2005 and Typical DNI Year (TDY). The TDY, 2002, 2003, 2005 profiles shall be based on site specific TM2 data which APS has provided and is derived from National Renewable Energy Laboratory (NREL) Solar Prospector. Refer to Attachment 1 to this RFP for APS Time of Day Relative Energy Factors and Relative Capacity Values.

- (viii) Bidders are required to complete the entire Technical Data form in PowerAdvocate which identifies certain criteria used to calculate the expected energy production for each facility. Although APS has provided certain default assumptions based on industry standards, Bidders may use criteria that differs from these assumptions by identifying the difference and reason for this variation. The energy production profile submitted by each Bidder must be calculated based on the same set of technical criteria supplied to APS in the Technical Data form of PowerAdvocate.
- (ix) EPC Agreement redlined to reflect Bidder's required modifications, if any. The form of EPC Agreement that APS will execute with the selected Bidder can be found on PowerAdvocate. **APS expects minimal, if any, redlines to the posted form of EPC Agreement. Any Proposal that requests material or voluminous changes to the EPC Agreement may not be considered for further evaluation by APS.**

4. Collusion

By submitting a Proposal to APS in response to this RFP, the Respondent certifies that the Respondent has not divulged, discussed or compared its Proposal with any other Respondent and has not colluded whatsoever with any other Respondent or third parties with respect to this or other Proposals.

C. EVALUATION PROCESS

1. Proposal Review

APS will use both quantitative and qualitative criteria to evaluate Proposals, all as described in this RFP. APS will first determine if each Proposal satisfies the threshold requirements summarized below. Those that do will be further evaluated through APS' screening evaluation described in paragraph C(3) below. Only those Proposals that satisfy the requirements of the screening evaluation will be further evaluated pursuant to paragraph C(4) below. If at any time during the

evaluation process APS determines that a Proposal does not meet its requirements, including timely submission of all documents pursuant to this RFP, such Proposal will no longer be considered for this RFP and APS will notify the Respondent accordingly.

2. **Threshold Evaluation**

- a. Compliance with Threshold Requirements. The initial stage of the evaluation process employed by APS will include a review of each Proposal's compliance with the following threshold requirements described below.
 - (i) The Proposal was posted to PowerAdvocate on time and complies with the submission instructions.
 - (ii) The Proposal's product description complies with paragraph A(4) above.
 - (iii) Proposal submittal includes all items listed in paragraph B(3) above.
- b. Failure of Proposal to Meet Threshold Requirements. APS, in its sole discretion, may reject a Proposal for further consideration if the Proposal fails to meet the threshold requirements or provides incomplete and/or inaccurate responses. APS may also seek clarification and/or remedying of a Respondent's Proposal.

3. **Screening Evaluation**

- a. Initial Screening of Proposals. If there are numerous Proposals that satisfy the threshold requirements, APS may choose to do an initial screening of such Proposals based on price alone. Proposals with prices significantly above the others will not receive further screening evaluation pursuant to this paragraph C(3).
- b. Screening Process. The screening process consists of quantitative and qualitative analyses to identify superior Proposal(s) for shortlisting. Respondents are advised that price will be a major factor in APS'

evaluation, but APS will consider other qualitative factors as described in paragraph C(3)(d) below.

- c. Quantitative Analysis. For its quantitative analysis, APS will compare the Respondent bid price plus additional costs against the market cost of comparable conventional generation as defined below.
 - (i) The additional costs added by APS include those necessary to incorporate the renewable resource into the APS system, including but not limited to system integration costs and related financing costs.
 - a) System Integration Costs: APS additional costs to account for its need for increased resources and regulating reserves depending upon the nature of the proposed project (i.e., degree of intermittency or forecast uncertainty inherent in the project). Based on the intermittent characteristics of photovoltaic generation resources, APS will add \$2.50/MWh to all Proposals to reflect System Integration Costs.
 - (ii) The “market cost of comparable conventional generation” as used in paragraph A(3)(c) means the energy and capacity cost to APS of producing or procuring the incremental electricity from a conventional resource that would be avoided by APS purchasing the output from the proposed facility, taking into account hourly, seasonal, and long-term supply and demand circumstances. APS will utilize production cost modeling of its system to determine the market cost of comparable conventional generation. A proposed facility does not need to supply a firm fixed amount of capacity (MW), but APS will consider the degree of capacity firmness when it assigns a capacity value to the project during its evaluation.
- d. Qualitative Analysis. The qualitative analysis is comprised of a high level risk assessment considering technology, project viability, developer

experience, safety record, QA/QC experience, credit, and contract risk related to the development of the project. APS will also evaluate the requested modifications to the EPC Agreement.

4. Short List Selection of Proposal(s)

- a. Short List. Proposals that are judged superior following the quantitative and qualitative screening process described in paragraph C(3) above may be shortlisted for further detailed evaluation by APS. APS will notify both the shortlisted Respondents, if any, and those Respondents whose Proposals have been eliminated from further consideration in accordance with the RFP schedule set forth in paragraph A(7) above.

5. Detailed Evaluation and Final Selection of Proposal(s)

- a. Meetings with Shortlisted Parties. Following shortlisting, APS will conduct meetings with shortlisted parties to gain a greater understanding of each Proposal. APS may also require Respondents to submit project-specific pro forma financial statements by year for the facility development and construction period including income statements, balance sheets and statements of cash flows. APS will re-evaluate any significant changes to or new understanding of the Respondent's Proposal as a result of the shortlist meetings in the same manner as described in paragraph C(3) above.
- b. Detailed Evaluation. APS will perform detailed evaluation of the shortlisted Proposals. The detailed evaluation is similar to the screening evaluation, except that it incorporates bid information into the production cost model and relies on a more detailed risk assessment.
- c. Final Evaluation and Selection. After conclusion of the shortlist meetings and detailed evaluation of the shortlisted Proposals, APS may make a final selection of one or more Proposals for negotiation of the EPC Agreement. APS will notify short listed Respondents whose Proposals are eliminated from further consideration in accordance with the RFP schedule.

- d. Right to Terminate Negotiations. If APS cannot reach acceptable terms with the final selected Respondent or Respondents, APS reserves the right to terminate negotiations with such Respondents and begin discussions with other Respondents, begin a new solicitation, or cancel this RFP. Furthermore, APS, in its sole discretion, reserves the right to not select any Proposals for negotiation of an EPC Agreement if warranted by its evaluation.

D. MISCELLANEOUS TERMS AND CONDITIONS

1. General

- a. Compliance. Each Respondent is responsible for acquiring and/or verifying that it is in compliance with all licenses, permits, certifications, studies, reporting requirements and approvals required by federal, state and local government laws, regulations and policies in order for it to contract for and perform in accordance with its Proposal.
- b. Binding Agreements. All executed contracts will be binding, in accordance with their terms.
- c. Costs. Respondent shall be liable for all of its costs and APS shall not be responsible for any of Respondent's costs incurred in responding to this RFP or in connection with the negotiation and execution of any contract as a result of the RFP process.

2. Regulatory Approval

Any final agreement resulting from this RFP may be conditioned upon actions and/or approvals by regulatory authorities, satisfactory to APS in its sole discretion.

Attachment 1

Time of Day Relative Energy Value Factors																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Jan	0.70	0.69	0.72	0.81	0.97	1.14	1.22	1.22	1.18	1.11	1.09	1.04	1.00	0.98	0.99	1.06	1.24	1.33	1.30	1.23	1.15	1.02	0.93	0.83
Feb	0.71	0.71	0.71	0.81	0.94	1.06	1.21	1.19	1.15	1.11	1.06	1.03	1.01	0.99	0.97	1.00	1.09	1.21	1.25	1.22	1.13	1.02	0.88	0.80
Mar	0.72	0.69	0.69	0.75	0.81	0.90	1.00	1.01	1.03	1.05	1.05	1.05	1.04	1.02	1.01	1.01	1.06	1.09	1.14	1.14	1.11	1.02	0.93	0.80
Apr	0.62	0.57	0.57	0.56	0.58	0.66	0.75	0.80	0.84	0.87	0.90	0.91	0.93	0.97	0.94	0.93	0.91	0.91	0.90	0.93	0.95	0.91	0.81	0.71
May	0.70	0.60	0.56	0.55	0.55	0.61	0.66	0.73	0.80	0.87	0.93	0.98	1.06	1.10	1.12	1.13	1.12	1.08	1.04	1.01	1.01	0.95	0.93	0.81
Jun	0.87	0.78	0.72	0.68	0.69	0.72	0.64	0.68	0.77	0.92	1.05	1.15	1.24	1.34	1.42	1.45	1.47	1.42	1.35	1.25	1.15	1.05	1.19	1.08
Jul	0.90	0.80	0.77	0.71	0.72	0.75	0.75	0.79	0.87	1.01	1.15	1.40	1.69	1.84	1.93	1.98	1.99	1.90	1.74	1.53	1.32	1.23	1.16	1.04
Aug	0.81	0.71	0.69	0.68	0.69	0.71	0.79	0.82	0.92	1.03	1.16	1.35	1.60	1.77	1.84	1.90	1.93	1.86	1.71	1.57	1.33	1.21	1.06	0.94
Sep	0.74	0.64	0.61	0.61	0.63	0.65	0.74	0.80	0.88	0.97	1.07	1.17	1.30	1.38	1.42	1.46	1.45	1.39	1.29	1.24	1.15	1.04	0.92	0.83
Oct	0.74	0.67	0.65	0.64	0.67	0.74	0.76	0.81	0.85	0.90	0.95	1.00	1.04	1.06	1.07	1.08	1.08	1.06	1.06	1.06	1.02	0.96	0.97	0.86
Nov	0.67	0.67	0.70	0.76	0.86	0.90	0.96	0.98	0.96	0.96	0.96	0.98	0.97	0.97	0.97	1.04	1.10	1.11	1.07	1.03	0.95	0.89	0.80	0.71
Dec	0.67	0.66	0.68	0.73	0.84	0.89	1.10	1.05	1.04	1.03	1.00	0.97	0.95	0.93	0.93	1.04	1.17	1.24	1.21	1.17	1.09	1.04	0.82	0.70

The Time of Day Relative Energy Value Factors table is based on hourly energy price curves for APS' system. The table shows the ratio of hourly 12 x 24 energy prices to the average annual energy price.

Relative Capacity Value																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Jan																								
Feb																								
Mar																								
Apr																								
May																								
Jun																1%	2%	1%						
Jul													1%	6%	9%	13%	14%	11%	6%					
Aug														3%	6%	7%	8%	6%	3%					
Sep																1%	1%	1%						
Oct																								
Nov																								
Dec																								

The Relative Capacity Values shown are a percentage of the total number of APS' top load duration hours in years 2002, 2003, and 2005. These top load duration hours occur during the months and hours shown in the table.

- Notes:
- (1) APS quantitative analysis of any proposed generating facility includes a capacity component and an energy component.
 - (2) This information is provided to give Bidders an indication of how APS may value Proposals.
 - (3) The higher the energy/capacity value, the more value APS places on the facility being operational during that time.
 - (4) The values above are based on historical data and are not necessarily indicative of future energy/capacity values.
 - (5) Actual values used in the evaluation of this RFP may differ.