



**Arizona Public Service Company**

**2022 All Source  
Request for Proposals**

May 16, 2022

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## I. Overview

Arizona Public Service Company ("APS") is a regulated public utility that generates, transmits, and distributes electricity for sale in Arizona. APS is headquartered in Phoenix, Arizona. As Arizona's largest and longest-serving electric company, we generate safe, affordable, and reliable electricity for more than 1.3 million commercial and residential customers in 11 of Arizona's 15 counties.

Through a comprehensive planning process, APS determines how to meet future customer needs for reliable and affordable electricity while achieving regulatory targets and reducing environmental impacts during the planning period. APS has worked with our team of resource experts, energy planners, and cross-sector stakeholders to develop a strategic roadmap on our path to a 100% carbon-free generation mix by 2050.

This All Source Request for Proposals ("RFP") solicits competitive Proposals ("Proposal" or "Proposals") for approximately 1000 MW to 1500 MW of resources, including up to 600 MW to 800 MW of renewable resources to meet the needs identified through the Integrated Resource Plan ("IRP"), which is filed with the Arizona Corporation Commission ("ACC"). The IRP provides the strategic direction for APS's acquisition of a clean, diversified, balanced resource portfolio that meets customer needs, maintains reliability, results in reasonable energy supply costs, and mitigates market risks. It includes an interim target of achieving a 65% clean energy mix and a 45% renewable energy mix by 2030. APS is focused on integrating renewable resources, empowering customers with flexible energy options, and incorporating advanced technology to produce clean and affordable energy while providing reliable service and remaining good stewards of Arizona's diverse environment.

APS's IRP indicates a need for additional flexible summer capacity resources to meet reliability requirements and additional renewable energy resources. The identified resources support APS's commitment to clean energy and are necessary to maintain system reliability in an environment of continued customer growth, coal retirements and expiring wholesale contracts. APS's primary goal is to identify cost-effective resources that provide capacity while supporting APS's Clean Energy Commitment.

**Resources offered through this RFP will be evaluated on their ability to meet one or both of the reliability and clean energy objectives.**

## II. Administrative Information

### A. Role of 1898 & Co.

APS has retained the services of an independent consultant, 1898 & Co. ("1898 & Co."), a division of Burns & McDonnell Engineering Co. Inc. ("Burns & McDonnell"), to support the RFP process and work with APS to coordinate communications and perform the quantitative and qualitative evaluations of all Proposals. 1898 & Co. will assist with Proposal evaluations; however, APS will make the final decisions about this RFP at its sole discretion.

- 1. Communications.** All Respondents will interface with 1898 & Co. for all communications related to this RFP, including questions, RFP clarification issues, and RFP Proposal submittal. All communications from Respondents to 1898 & Co., including questions regarding this RFP, should be submitted in writing via the PowerAdvocate "Messaging" tab. Depending upon the nature and frequency of the questions 1898 & Co. receives, 1898 & Co. will either respond to individual Respondents directly or post a response to the question to all Respondents in PowerAdvocate (without disclosing the Respondent's name).
- 2. Questions.** Respondents can submit any questions related to the RFP on the "Messaging" tab in PowerAdvocate. However, 1898 & Co. will only respond to RFP questions received from Respondents who have submitted an executed confidentiality agreement ("CA") via the PowerAdvocate platform. As needed, a Frequently Asked Questions ("FAQ") document will be available in the "Download Documents" tab in PowerAdvocate.
- 3. 1898 & Co. Contact.** The PowerAdvocate "Messaging" tab is the sole medium of communication for this RFP and will be monitored and responded to by 1898 & Co. Respondents that experience any difficulty accessing PowerAdvocate should contact:

Email: [support@poweradvocate.com](mailto:support@poweradvocate.com)

Helpdesk: 857-453-5800

1898 & Co. will NOT respond to any questions about the RFP outside of PowerAdvocate.

### B. Role of Independent Monitor

APS has also engaged an independent monitor ("IM") throughout the RFP process to ensure that it is conducted in a fair and unbiased manner. The IM provides oversight during the selection process and will have access to all documentation provided by the Respondents in response to this RFP. The IM will produce a final report summarizing its observations for use by APS, which may include submission to the ACC in connection with APS's regulatory requirements.

The IM is obligated to maintain the confidentiality of all information that it reviews.

### C. PowerAdvocate Platform

Interested parties will be required to register online using the web form provided at <http://www.aps.com/rfp>. Registration will open on May 16, 2022. Registration enables each Respondent to access the 2022 RFP, the CA, and any FAQ document that is developed.

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: <https://www.poweradvocate.com/web/terms-of-use.html>.

### D. RFP Schedule

Proposals shall be submitted in strict accordance with the below RFP schedule. 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 rejected, and the Respondent will be notified accordingly.

Event	Important Dates
RFP Release	May 16, 2022
Confidentiality agreement DUE	May 30, 2022
Bidder's Conference	June 8, 2022
Proposal(s) DUE	July 8, 2022
Proposal fee(s) DUE	July 8, 2022
Shortlist Respondents notified	August 2022
Final selections	September 2022
Anticipated contract execution	September – December 2022

- 1. Bidder's Conference.** A bidder's conference will be held virtually on June 8, 2022, to provide information and answer questions that potential Respondents have about the RFP. We expect to focus on aspects of the RFP that may be new to our audience, such as the index pricing for solar and battery energy storage resources. Instructions on how to participate in the bidder's conference will be made available in PowerAdvocate.

### **III. Summary of Resources Needed**

APS is requesting resources that will provide reliable capacity to meet summer peak needs plus reserve margins and provide additional renewable energy as part of our energy mix. APS is seeking approximately 1000 MW to 1500 MW of resources, including up to 600 MW to 800 MW of renewable resources.

APS requests competitive Proposals for capacity resources and renewable energy resources providing a minimum of 5 MW with in-service dates in either 2025 or 2026. Several variables may impact the specific type and timing of resource additions, such as contribution to peak, higher production levels of renewables, and costs associated with project timing. Projects may achieve in-service in phases over multiple years, beginning as early as December 1, 2024, and as late as December 31, 2026. To further accommodate a phased-in approach and optimize customer value, APS will accept Proposals for projects that reach full completion and commercial operation as late as June 1, 2027, provided that construction on any such project must begin no later than 2026 and the project must be partially in service in 2026.

If a significant number of Proposals are received, APS will prioritize negotiations for 2025 resources ahead of 2026 resources. It is expected that 2026 negotiations may occur up to a few months after 2025 negotiations.

APS expects a resource that provides reliable summer capacity and energy to have significant economic value. Energy that is non-dispatchable by APS and is proposed as must-take energy will generally be viewed and evaluated less favorably. In addition, clean, flexible, dispatchable resources are increasingly important in helping APS meet its clean energy goals, maintain system reliability, and will be valued accordingly. APS needs flexible resources that are shapeable and responsive to changes in actual customer demand.

APS must maintain a reliable electric system, which includes having firm capacity plus reserves to meet customer demands and reliability needs during summer system peak load times. APS must be able to respond to changes in customer demands or supply needs in real-time, and APS seeks to develop a portfolio of resources that will enable it to do so.

APS will consider the value for both the capacity component and the energy component for all Proposals.

## **IV. Eligible Respondents and Resources**

### **A. Respondent Experience**

APS is seeking Respondents that have demonstrated significant previous experience developing resources (or resource options) of a similar nature to those resources included in Respondent Proposal(s).

For any Proposal with a project size greater than 25 MW, Respondent must demonstrate that it and its Partner(s), as applicable have previously developed a project to the point of commercial operation that is at least 50% of the MW or MWh of the size of the proposed project and have been operational for electric grid service for at least three years with an average annual availability greater than 90%.

In the case of a Proposal with a project size less than or equal to 25 MW, Respondent must demonstrate that it and its Partner(s), as applicable, have previously developed a project to the point of commercial operation that is at least ten percent (10%) of the size of the proposed project, and that is of similar technology.

Information about other characteristics that speak to Respondent experience is solicited in PowerAdvocate and will be considered in the Proposal evaluation process.

### **B. Front of the Meter Resources**

APS will accept Proposals for existing or new resources for the following supply side, or front of the meter ("FTM"), technologies (either stand-alone or in combination, such as solar plus storage):

- Solar
- Energy Storage
- Wind
- Biomass/Biogas
- Geothermal
- Landfill Gas
- Reciprocating Units
- Simple cycle combustion turbines
- Combined cycle combustion turbines
- Hybrid resources (alternating current ("AC") coupled)

APS will not accept Proposals for transactions not directly backed by a specific generating asset or utility system, such as call options or wholesale market products. In addition, APS is seeking Proposals for FTM resources that operate autonomously and can be controlled remotely with the APS Automatic Generation Controls ("AGC"), with an interface to APS's Energy Management System ("EMS") through APS's Remote Terminal Unit ("RTU") to be installed at

the Respondent's project site. APS may include the associated capacity and energy sold to APS for use in the California Independent System Operator ("CAISO") Energy Imbalance Market. APS will accept Proposals that offer a minimum of 5 MW per site with a preference for Proposals greater than 200 MW. For Proposals that combine technologies, the aggregate offering must be 5 MW or greater. To safeguard system integrity and mitigate risk, APS prefers proposed resource interconnection configurations that limit any single point of failure to 400 MW.

### **C. Behind the Meter Resources**

APS will accept Proposals for the following demand side, or behind the meter ("BTM"), resources or programs (either singular or in combination):

- Demand Response (both commercial & industrial and residential)
- Energy Efficiency

For BTM resources, APS is seeking Proposals that offer a minimum of 5 MW and aggregate APS customer load accordingly. For Proposals that combine resources or programs, the aggregate offering must be 5 MW or greater. Any Respondent that submits a Proposal for a BTM resource should consider whether such resource could be capable of AGC control by APS and potential use in the CAISO Energy Imbalance Market. Proposals that include such capability may be more favorably evaluated than those that do not.

### **D. Site/Land Control**

APS expects each Respondent to demonstrate sufficient site control, effective as of Proposal submission and continuing through the term of the associated agreement with APS. The types of agreements that can be used to demonstrate site control appear as a drop-down selection within each technical data sheet under the "Technical Data" tab in PowerAdvocate and do not include a letter of intent or any other similar non-firm agreement. Additionally, APS expects any Proposal for a resource to be developed wholly or partially on state-owned land to demonstrate that Respondent is scheduled for lease approval on the AZ State Land Board of Appeals Meeting Notice and Agenda on a date before Proposals are shortlisted (August 2022) to satisfy APS's site control requirement. APS will NOT consider any Proposal for a facility to be developed on an existing APS-owned site.

## V. Eligible Transaction Structures

APS will evaluate Proposals that incorporate any one of the transaction structures included in the list below. APS expects Respondents to submit a copy of the relevant term sheet, redlined to reflect Respondent's required modifications, if any. APS's term sheets for each type of transaction structure can be found in the "Download Documents" tab in PowerAdvocate.

### **Power Purchase Agreement ("PPA"):**

- Renewable energy Tolling\*
- Renewable energy plus energy storage Tolling\*
- Renewable energy
- Energy storage Tolling\*
- Thermal Tolling

### **Build-Transfer Agreement ("BTA"):**

- Renewable energy
- Renewable energy plus energy storage
- Energy Storage

### **Load Management Agreement:**

- BTM demand response programs
- BTM energy efficiency programs

\*For Proposals offering a PPA or tolling agreement structure (other than for a thermal resource), APS prefers that Proposals incorporate an option for APS to ultimately purchase the resource.

**NOTE: If the Respondent's Proposal represents a combination of technologies, it is incumbent upon the Respondent to review the term sheet applicable to each type of technology and include any applicable term sheet as part of its Proposal, together with any required modifications described above.**

## **VI. Proposal Pricing**

### **A. General**

APS expects final Proposal pricing to include all costs, including but not limited to interconnection network upgrade costs, financing costs, energy delivery costs, project direct interconnection costs, and provision of required collateral for pre-and post-development security. If specific interconnection costs are not known, Respondents are expected to make reasonable estimates and include those in their Proposal pricing. More specific information about pre-and post-security is set forth in Section VI.C. Pricing should assume the tax credit strategy applicable to the Proposal, as set forth in Appendix B and described in Respondent's Executive Summary. Pricing should also assume only such antidumping duty/countervailing duty ("AC/CVD") tariffs as apply to the Proposal at the time of submission and not any tariffs that may result from the current Department of Commerce investigation. The potential impact of any future AD/CVD tariffs that could be imposed in the future, and Respondents' risk mitigation strategies therefor, should be addressed in the Executive Summary as set forth in Appendix B.

Respondents should note that the "Pricing" tab in PowerAdvocate is not used for this RFP. Instead, APS expects Respondent to provide Proposal pricing with each applicable technical data sheet under the "Technical Data" tab in PowerAdvocate. All prices must be clearly stated in United States Dollars. Failure by a Respondent to include all costs in Proposal pricing, which enables fair comparison of all Proposals, may result in a Respondent's Proposal being eliminated from further evaluation.

### **B. Pricing Structure**

APS expects the Proposal price for a PPA tolling agreement to either be fixed for the duration of the proposed agreement term or to escalate at a fixed annual escalation rate. APS will not accept Proposals with escalation rates tied to any index, with the exception of the specific indices applicable to solar and battery storage technologies as described below. APS acknowledges the current uncertainty associated with tariffs, supply chain, and logistics for solar panels and batteries. To manage that uncertainty while also enabling fair comparison of prices for all Proposals, APS requires that Proposals for solar and/or battery storage resources include pricing based on costs expected at the time of Proposal submission. Then, APS requires that each Respondent indicate the weighted average impact of each of the indices listed below on the total Proposed price. Proposal pricing would be subject to fluctuations in the following indices, in proportion to the weighted averages proposed by Respondent, until contract execution:

- Marine cargo – Freightos FBXO1 Index
- Overland freight – Bureau of Labor Statistics Index # PCU484121484121
- Steel – CME Group CRU Index

- Aluminum – Mining.com Aluminum Index
- Copper – Mining.com Copper Index

In addition, the price of materials such as lithium carbonate and polysilicon may also materially impact the pricing of solar and battery storage Proposals. APS has not included specific indices for those materials in the weighted average, but is interested in knowing each Respondent’s assessment of the impact of price fluctuations for such materials on its Proposal(s). That assessment should be included in the appropriate fields where requested in PowerAdvocate.

APS anticipates that during negotiations for any solar or battery storage resource with index-based pricing that there will be established a price cap, above which APS would expect to terminate negotiations.

### C. Collateral

APS requires collateral to be posted, in the form of cash or a letter of credit only, to secure Respondent’s obligations in connection with any transaction contracted for as a result of this RFP. In the case of a letter of credit, it must be in the form and from an issuing bank acceptable to APS in its sole discretion. As described in Section VI.A, APS requires that all costs of such collateral be included in Proposal pricing. The following information should be used by each Respondent to determine the collateral that will be required in connection with its Proposal(s) and to include the costs of such collateral in Proposal price accordingly.

Resource	Contract Structure	Contract Execution	Post COD
New Energy Storage	PPA	\$70/kWh	\$55/kWh
Existing Energy Storage	PPA	\$55/kWh	\$55/kWh
New Energy Storage	BTA	\$70/kWh	\$55/kWh held until warranty period expires
New Renewable or Thermal	PPA	\$100/kW	\$40/kW
Existing Renewable or Thermal	PPA	\$40/kW	\$40/kW
Renewable	BTA	\$100/kW	\$40/kW held until warranty period expires
Energy Efficiency (EE)	Load Mgmt. Agreement	\$100/kW	\$40/kW
Demand Response (DR)	Load Mgmt. Agreement	\$100/kW	\$40/kW

*\*If a combined technology is being offered (i.e., solar plus battery storage), the higher of the two collateral requirement amounts (in such case, battery storage) is the collateral requirement that must be used.*

## D. Interconnection

The following information is intended to guide Respondents as they consider the interconnection of their proposed resources and include all the associated costs in their Proposal pricing. Note, however, that nothing in this Section VI.D. or elsewhere in this RFP is intended to provide definitive guidance to any potential Respondent regarding the specifics of the interconnection process that may apply to the Respondent's proposed facility.

APS is seeking Proposals that interconnect directly to the APS transmission system. Each Respondent must demonstrate that it has or can secure firm transmission for delivery from the facility to the APS transmission system for the entire proposed term of the relevant transaction. Respondents should be aware that connection to an APS substation may not guarantee connection to the APS transmission system as required. Any additional firm transmission service needed to connect a proposed facility to the APS transmission system is the Respondent's responsibility and should be included in the Respondent's Proposal.

Respondents are advised to review the most complete and up-to-date information regarding interconnection on APS's Open Access Transmission Tariff ("OATT"). <http://www.oasis.oati.com/azps/index.html>.

- 1. Interconnection Application and Studies:** APS recognizes that the timeline for executing an interconnection agreement is critical in the development process. For purposes of this RFP, APS will not require any Respondent to enter the APS interconnection queue process unless and until its Proposal is selected for Shortlist evaluation, which APS expects to determine on or around September 1, 2022. Respondents should note that there are locations within the APS system that have more interconnection requests than other locations; the application processing time for those more active locations may be greater. Each proposed facility must be constructed and interconnected to meet proposed capacity and energy deliveries by the in-service dates established in this RFP. The interconnection queue at each location is available to the Respondents at the APS OASIS site referenced above. Nevertheless, each Respondent is responsible for performing its diligence regarding the interconnection process and determining when it should submit its application to the APS interconnection queue and otherwise participate in the interconnection process to meet the requirements of this RFP.
- 2. Energy Delivery Costs:** Pricing included in any Proposal must be based on delivery to the APS system. If the Respondent proposes to interconnect directly to the APS system, all losses between the generating station and the demarcation point for equipment ownership and transfer to APS (typically referred to as the Delivery Point in the relevant agreement with APS) are the Respondent's responsibility. If the Respondent proposes to interconnect to another utility's system, all

transmission wheeling costs to transmit project energy to the APS system on a firm basis are also the Respondent's responsibility and must be included in the Proposal price.

- 3. Project Interconnection Costs:** Each Respondent must include reasonable interconnection cost estimates as part of its submitted Proposal. Interconnection costs must be provided within the appropriate technical data sheet under the "Technical Data" tab in PowerAdvocate. Respondents may, at their discretion, utilize third-party consultants to determine accurate interconnection estimates. A detailed description of such interconnection costs must accompany each Proposal and include a breakdown of the significant equipment costs. For interconnection related questions or information, please contact:

APS Interconnections

e-mail: INTERDEV@apsc.com

URL: <http://www.oatioasis.com/azps/index.html>

## VII. Technical Requirements

APS expects Respondents to provide technical information for each resource in the appropriate technical data sheet found in the "Technical Data" tab in PowerAdvocate. The technical data sheets identify specific criteria used to calculate the expected energy production for the proposed facility. Although APS has provided certain default assumptions based on industry standards, Respondents may use criteria that differ from these assumptions by identifying the difference and reason for this variation. The energy production profile submitted by each Respondent must be calculated based on the same set of technical criteria supplied to APS by the Respondent in the technical data form.

All available capacity, energy, and ancillary services are for use exclusively by APS. Ancillary services may include frequency response, spinning reserve, non-spinning reserve, reactive power control, fixed power factor, and automatic voltage regulation. Any Proposal for a generating or energy storage resource must include pricing for the proposed resource for any preceding ancillary service capabilities included in the Proposal.

The following sections list additional minimum requirements for each technology type and "APS Preferences" associated with each. Satisfaction with any APS Preferences is not required for a Proposal to be deemed conforming. Proposals that contain more of the APS Preferences may be more competitive than those with fewer APS Preferences.

### A. Energy Storage

- 1. Requirements:** Any energy storage Proposal must conform to the requirements for all Proposals set forth in Section IX and the following requirements:
  - a. Transaction Structure. PPA or tolling agreement term at least five (5) years and not more than twenty (20) years. If the proposed term is something other than ten (10) years, Respondent must provide indicative ten (10)-year pricing in its Executive Summary, as described in Appendix B.
  - b. Technology. Proposals may include only the following technologies:
    - i. Battery energy storage system ("BESS")
    - ii. Flywheel
    - iii. Pumped storage hydropower
    - iv. Compressed air energy storage system ("CAES")
    - v. Other energy storage technologies that meet the minimum requirements of this RFP
  - c. Technical Characteristics
    - i. Any proposed facility must meet all BESS safety requirements specified in the APS "Appendix W" (which specifies APS's safety standards and will be provided to Respondents separately through PowerAdvocate), which can be found in the "Download Documents" tab in PowerAdvocate. Proposal pricing shall include

- all testing, equipment, and design necessary to satisfy such safety requirements.
- ii. Any proposed facility must be capable of operating within the 50-year Extreme Annual Design Conditions, as detailed in the American Society of Heating, Refrigeration, and Air Conditioning Engineers ("ASHRAE") Handbook, using a weather station nearest to the project location, at 100% of the proposed contract capacity discharging for a minimum of four (4) consecutive hours.
  - iii. Proposed projects must allow for 365 equivalent cycles per year with an average annual state of charge of 50%. To maximize the flexibility that APS seeks, the 365 annual cycles can assume days where the resource is cycled more than once and days where the resource is not cycled at all. Information related to alternate duty cycles can be included in the Executive Summary. Respondents are encouraged to propose other technical or commercial methods that will enable APS flexibility to adjust the number of annual cycles over the term of the agreement (i.e., adjustments/credits, cycle banking, etc.)
  - iv. Any proposed facility must be capable of satisfying a monthly availability requirement (as that term is defined in the applicable agreement with APS) of at least 97% for non-summer periods and 98% for summer periods during the term of the agreement.
  - v. If included as a hybrid resource to utilize the value of the ITC, BESS must be capable of grid charging post expiration of the ITC.
  - vi. BTA agreements must be AC coupled and include an augmentation plan.
  - vii. PPA proposal pricing does not require an augmentation plan and can either be AC or DC coupled.

**2. Preferences:** Though not required, APS prefers the following characteristics in Proposals for energy storage resources:

- a. APS prefers a technology that has already undergone safety testing, safety evaluations, and safety designs, as evidenced by test results and other supporting documentation included in the Proposal in accordance with "Appendix W" (which specifies APS's safety standards and will be provided to Respondents separately through PowerAdvocate). Proposals that plan to undergo safety testing, safety evaluations, or safety designs for the proposed technology after contract execution will be viewed less favorably.
- b. APS prefers a facility able to deliver the full proposed contract capacity for a duration of longer than four (4) consecutive hours to meet peak needs.
- c. APS prefers a facility located in APS's service territory and interconnected to APS's transmission or sub-transmission system (69kV or higher).

- d. APS prefers a facility that charges in a timeframe as close to matching the amount of time it takes to discharge and does not de-rate the power capacity of the facility as it reaches the high or low end of the state of charge. A facility with the ability to have more than one equivalent cycle per day will be viewed favorably.
- e. APS prefers land owned by the developer or purchase option. For land lease agreements, APS prefers at least 42 years.
- f. APS prefers a facility that can provide reactive capabilities in excess of the minimum Interconnection Requirements and can also provide reactive capabilities without the need to be producing real power (i.e., grid-sourced reactive power).

## **B. Renewable Energy Technologies**

**1. Requirements:** Any renewable energy technology Proposal must conform to the conforming requirements for all Proposals outlined in Section IX and the following requirements.

- a. Transaction Structure. PPA or tolling agreement term at least five (5) years and not more than twenty (20) years, or build own transfer agreement. If the proposed term is something other than ten (10) years, Respondent must provide indicative ten (10)-year pricing in its Executive Summary, as described in Appendix B. The PPA or tolling agreement must give APS ownership of all environmental attributes, as that term will be defined therein.
- b. Technology. Eligible renewable energy resources are those defined in A.A.C. R14-2-1802(B): Eligible Renewable Energy Resources are applications of the following defined technologies that would otherwise be used to provide electricity to APS customers:
  - i. Biogas Electricity Generator
  - ii. Biomass Electricity Generator
  - iii. Eligible Hydro Facilities
  - iv. Fuel Cells that Use Renewable Fuels
  - v. Geothermal Generator
  - vi. Hybrid Wind and Solar Electric Generator
  - vii. Landfill Gas Generator
  - viii. Solar Electricity Resources
  - ix. Wind Generator
- c. Technical Characteristics
  - i. Renewable energy projects must offer operational flexibility, which can be achieved through a tolling agreement structure or a PPA that includes curtailment rights. Proposals should be clear about the operational flexibility being offered and how that flexibility can be maximized to achieve the greatest value for APS.
  - ii. Any proposed facility must be capable of operating within the fifty-year Extreme Annual Design Conditions, as detailed in the ASHRAE Handbook, using a weather station nearest to the project location at 100% of the proposed contract capacity.

- iii. Any Proposal for a solar photovoltaic facility shall include four (4) hourly production profiles (i.e., 8760 profiles), which represent the hourly output of the project at the APS Delivery Point in Mountain Standard Time ("MST") for years 2006, 2007, 2009 and Typical Meteorological Year ("TMY"). The TMY, 2006, 2007, and 2009 profiles shall be based on site-specific data derived from National Renewable Energy Laboratory ("NREL") Solar Prospector in .tmz and .csv file formats.
- iv. Any Proposal for a wind facility shall provide on-site wind data used in preparing 8760 production profiles as well as the method(s) for collecting on-site wind data in the
- v. spreadsheet found in the "Download Documents" tab in PowerAdvocate

**2. Preferences:** Though not required, APS prefers the following characteristics in Proposals for renewable energy resources:

- a. APS prefers a facility that maximizes the amount of energy production that it will generate and deliver during the months of June through September between the hours of 3:00 pm and 9:00 pm Arizona time.
- b. APS prefers a facility that can provide reactive capabilities in excess of the minimum Interconnection Requirements and can also provide reactive capabilities without the need to be producing real power (i.e., grid-sourced reactive power).

## C. Energy Efficiency

**1. Requirements:** Any Proposal for energy efficiency or other BTM, non-dispatchable resource (referred to herein as "Energy Efficiency") must conform to the minimum requirements for all Proposals outlined in Section IX and the following requirements.

Respondents assume the risk and impact of any future APS rate design changes when submitting a Proposal for an Energy Efficiency resource. In addition, nothing in this RFP shall limit APS's ability to offer its own Energy Efficiency programs in the future, regardless of whether or not it enters into a load management agreement for an Energy Efficiency resource as a result of this RFP.

- a. Transaction Structure. Must offer an energy efficiency resource pursuant to a Load Management agreement that satisfies the terms specified in the term sheet found on the PowerAdvocate "Download Documents" tab for a term of at least five (5) years but not more than ten (10) years. The agreement must permit APS to count any energy savings resulting from the proposed resource toward any established ACC Energy Efficiency goal and/or any other future regulatory requirements.
- b. Technical Characteristics

- i. Any proposed resource must pass the Societal Cost Test ("SCT") as defined by the ACC Energy Efficiency Standards defined in Arizona Administrative Code R14-2-2401(36). APS will screen all Energy Efficiency Proposals using the SCT as prescribed by the ACC. All Respondents must provide input assumptions and calculations to pass the Societal Cost Test.
- ii. Any proposed resource must be APS-branded.
- iii. Any proposed resource may only aggregate customers within the APS service territory.
- iv. Any Proposal must include a proposed Measurement and Verification Plan ("M&V Plan") to verify actual MWh & MW savings delivered, including estimated costs for implementing the M&V Plan. Load reductions must be verifiable by APS by using then-available APS metering. Resources that are educational in nature only (i.e., do not include tangible energy efficiency products) and do not result in MWh and MW savings delivered are not eligible.

- 2. Preferences:** Though not required, APS prefers the following characteristics in Proposals for energy efficiency programs
- a. APS prefers a system that passes the Ratepayer Impact Measure ("RIM") test and otherwise demonstrates cost-effectiveness through other tests such as the utility cost test and the participant test.
  - b. APS prefers a system capable of operating at 115° F and twenty percent (20%) humidity, at 100% displaced capacity for a minimum of four (4) consecutive hours.
  - c. APS prefers a system that displaces energy during the months of June through September and between the hours of 3:00 pm and 9:00 pm Arizona time.

## **D. Demand Response**

- 1. Requirements:** Any Proposal for demand response or other BTM dispatchable resource (referred to herein as "Demand Response") must conform to the minimum requirements for all Proposals outlined in Section IX and the following requirements.

Respondents assume the risk and impact of any future APS rate design changes when submitting a Proposal to APS. In addition, nothing in this RFP is intended to limit APS's ability to offer its own demand response programs of any type in the future, regardless of whether or not it enters into a demand response load management agreement as a result of this RFP.

Consistent with the premise that APS does not intend to provide multiple compensation streams for the same demand side management services, Proposals may not include capacity already participating in existing APS demand-side incentive programs. In other words, the capacity included

in the Proposal must be distinct from capacity that APS has already secured through existing APS demand response programs, including, but not limited to, the residential Cool Rewards, the Commercial/Industrial Peak Solutions program, and the Residential Energy Storage Pilot.

Similarly, while APS does not prohibit distributed demand side management technologies that have received a rebate or been counted towards energy efficiency, demand-side management, or renewable mandates from participating in this RFP, Proposals shall only include DDSRs that are incremental to and not in conflict with their participation in current APS programs. For example, a smart thermostat that received an APS rebate for energy efficiency at the time of installation would be eligible to participate in DDSR aggregation offering demand response services. However, if this same thermostat is currently enrolled in the APS Cool Rewards demand response program, it would be ineligible to offer demand response peak capacity value in a DDSR aggregation. This same thermostat could still participate by providing other grid services, such as load shifting. As another example, from the Residential Energy Storage Pilot, only those enrolled in the data-only portion of the pilot can participate. Customers enrolled in the capacity-sharing portion of the pilot will be ineligible. All Proposals that include dual participation DDSRs should clearly identify these resources in Proposals and clearly demonstrate how they provide incremental grid value. Note that the basis of compensation for these dual participation resources will be limited to their incremental value only after accounting for grid services that APS has already paid for through other mechanisms (i.e., incentives or retail rates). Respondents must also indicate how any grid services they propose for dual participation resources will not conflict with any current grid services that APS has already obtained from these DDSRs while considering potential customer experience issues that could occur related to dual participation (e.g., fatigue from too many demand response and load shifting events).

Proposals may also not include residential, commercial, or industrial customers enrolled on a rate schedule/tariff where third-party providers provide the generation component. These programs/rates currently include Alternative Generation-X, Interruptible Rate Rider, and Critical Peak Pricing-General Service.

- a. Transaction Structure. Must offer a demand response program pursuant to a load management agreement that satisfies the terms specified in the term sheet found on the "Download Documents" tab in Power Advocate with a term of at least five (5) years but not more than ten (10) years. The agreement must permit APS to count any energy savings that result from the proposed program toward any ACC Energy Efficiency goal and/or any other future regulatory requirements.
- b. Technical Characteristics

- i. Any Proposals must provide for commercial operation and delivery of capacity beginning on June 1, 2025 or June 1, 2026. All Proposals must provide capacity during the months of June through September during each year of the term of the load management agreement (the "Control Season").
- ii. Proposals must offer a minimum of 5 MW of (incremental or additional) capacity per year, aggregated from eligible APS commercial and industrial ("C&I") or residential customer load.
- iii. The resource must be dispatchable a minimum of eighteen (18) times during each Control Season, June through September, during any Program Availability Hour, 4:00 PM to 9:00 PM, Arizona Time.
- iv. The resource must respond with two (2) hours prior notice.
- v. The resource must be capable of delivering guaranteed load reduction for five (5) consecutive hours.
- vi. The resource must be capable of performing for a minimum of three (3) consecutive days.
- vii. The resource must provide one hundred percent (100%) of the contracted load reduction each Monday through Friday and eighty percent (80%) of the contracted load reduction each Saturday, Sunday, July 4th, and Labor Day during the Control Season.
- viii. Load reductions must be verifiable by APS using APS-owned Advanced Metering Infrastructure ("AMI") metering.
- ix. The resource may only aggregate eligible customers within the APS service territory.
- x. The resource must be APS-branded.

**2. Preferences:** Though not required, APS prefers the following characteristics in Proposals for energy efficiency programs

- a. APS prefers a resource capable of more than eighteen (18) dispatches per Control Season.
- b. APS prefers a resource that responds with one (1) hour prior notice. Respondents should explain (in the Executive Summary) if responding with one (1) hour prior notice will result in any cost increase to APS, as compared to a two (2)-hour prior notice requirement.
- c. APS prefers a resource that can reduce the load for longer than five (5) hours.
- d. APS prefers a resource that can reduce the load if called upon by APS for five (5) consecutive days or more.
- e. APS prefers a resource that can provide one hundred percent (100%) of the DR Capacity during all seven (7) days of the week, including July 4th and Labor Day, during the Control Season.
- f. APS prefers a resource that can be contracted with APS for a shorter term rather than a longer term to enable APS to be responsive to future load changes.

## E. Thermal Generation

1. **Requirements:** Any Proposal for a thermal generation resource must conform to the minimum requirements for all Proposals outlined in Section IX and the following requirements.
  - a. Transaction Structure. Must be in the form of a tolling power purchase agreement with a delivery term of at least three (3) years and not more than eight (8) years and a delivery period of May 1 through October 30. Proposals must also include the Respondent's plan, if any, to reduce carbon emissions over the term of the proposed transaction, including through the use of clean hydrogen or by other means. APS considers "clean hydrogen" to be hydrogen produced through means that release few to no carbon emissions during the reaction period.
  - b. Technical Characteristics
    - i. Proposed gas-fired generation resources must be able to connect to a viable interstate natural gas pipeline. APS will evaluate the proposed point of connection to see if any constraints are specific to that location.
    - ii. Proposed resource must have adequate water rights to support performance for the full contract capacity and the proposed term of the tolling agreement.
    - iii. Proposed resource shall be capable of operating at 100% contract capacity for a minimum of six (6) consecutive hours.
    - iv. The Proposed resource must be fully dispatchable by APS using AGC.
    - v. To the extent that carbon allowances are allocated to the proposed resource or part thereof, those allowances must be provided to APS for the term of the associated tolling agreement at no additional charge. APS may allocate them toward its requirements pursuant to any applicable regulatory requirements.
    - vi. APS evaluates gas turbine performance on the following parameters:
      1. Assumed elevation of 1,000 ft.
      2. June-September temperatures at 105°F and Relative Humidity of 19%
        - a. Equivalent to 115°F and Relative Humidity of 9.5%.
        - b. Assumes inlet cooling
      3. October, March-May temperature 73°F and Relative Humidity of 37%
        - a. Assumes inlet cooling
      4. November-February temperature 41°F and Relative Humidity of 51%
        - a. Inlet Cooling is assumed off

- 2. Preferences:** Though not required, APS prefers the following characteristics in Proposals for thermal resources
- a. APS prefers a resource capable of stable operation at a minimum operating level of twenty-five percent (25%) loading or lower without exceeding the legal limits for emissions (CO, CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, VOC, PM<sub>10</sub>) pursuant to an applicable air permit or otherwise.
  - b. APS prefers a resource capable of at least two (2) starts per day.
  - c. APS prefers a resource with a minimum ramp rate of ten percent (10%) per minute of summer capacity rating.
  - d. APS prefers a resource capable of full contract capacity at 118°F and Relative Humidity of 20%.
  - e. APS prefers a transaction that allows APS the option to supply any fuel and related gas transportation for delivery to the lateral pipeline interconnection for the facility.
  - f. APS prefers a connection to both the El Paso and Transwestern pipelines for a natural gas resource.

## **VIII. Selection Process**

If at any time during the Proposal evaluation process, APS determines that a Proposal does not meet the requirements, including timely submission of all documents and fees required pursuant to this RFP, or fails to remain competitive with other Proposals through screening or other more detailed analyses, such Proposal will be eliminated from further consideration and the Respondent will be notified accordingly.

The Proposal evaluation process includes three primary parts: initial screening, a qualitative/quantitative analysis, and a portfolio evaluation, the details of which are provided below. Additionally, APS is requesting a wide range of information that may not all be formally included in the three aforementioned parts of the evaluation. That does not mean that the information won't be factored into APS's short list or final selection of Proposals. Rather, that information, in the aggregate, will inform APS selections between otherwise competitive Proposals. APS will also apply an overall risk evaluation that considers diversity of suppliers and technologies in order to appropriately mitigate risks associated with single points of failure in our resource acquisition plan.

### **A. Initial Screening**

APS expects all Proposals to be complete in accordance with the requirements set forth in this RFP. APS and 1898 & Co. will initially screen all Proposal for completeness and APS reserves the right to make a reasonable judgment about the degree to which any Proposal does or does not conform to the requirements. Respondents may be given an opportunity to cure modest deviations from the requirements, but any significant deviations (either in substance or quantity) may result in a Proposal being rejected as non-conforming.

To facilitate the initial screening, each Respondent must complete the "Proposal Checklist" found in the "Commercial" tab in PowerAdvocate.

### **B. Quantitative/Qualitative Analysis**

For Proposals that satisfy the initial screening for completeness, APS and 1898 & Co. will perform an analysis that applies specific quantitative and qualitative criteria. Proposals will be grouped by technology and ranked following the application of the scoring matrix set forth in [Appendix C](#). Proposals that score competitively will be further evaluated through a portfolio evaluation.

### **C. Portfolio Evaluation**

The portfolio evaluation considers the fit of a Proposal relative to APS's existing resources, other Proposals, projected resource needs, and further qualitative evaluation.

APS will utilize resource planning models, and production cost modeling software to evaluate how well a Proposal meets system reliability requirements

while minimizing projected APS system costs. Resources will be evaluated within the APS portfolio based on present value revenue requirements ("PVRR") for the APS system. For non-supply side resources APS may perform Ratepayer Impact and Total Resource Cost tests.

APS will not disclose to Respondents the generation cost estimates used for Proposal evaluation but will provide that information to the Independent Monitor referenced in Section II.B. Further, APS's avoided capacity and energy values are proprietary data and will not be disclosed to Respondents.

#### **D. Shortlisting Process**

At APS's sole discretion, Proposals that satisfy the qualitative/quantitative screening and portfolio evaluation may be shortlisted for further evaluation. APS will notify shortlisted Respondents, if any, along with those Respondents whose Proposals have been eliminated from further consideration, in accordance with the RFP schedule outlined in Section II.D.

APS may conduct meetings or phone calls with shortlisted Respondents to better understand each Proposal. APS may also require shortlisted Respondents to submit the project and/or Respondent-specific pro forma financial statements by year for the applicable facility development and construction period, including income statements, balance sheets, and statements of cash flows. APS may then re-evaluate each shortlisted Respondent's Proposal, including any new information provided during or as a result of the shortlist meetings, in a manner similar to the evaluation process described above.

#### **E. Shortlisting Final Evaluation and Selection**

Following the shortlist process described above, APS may make a final selection of one or more Proposals for negotiation of an agreement in a form substantially similar to that set forth in the relevant term sheet. APS will notify shortlisted Respondents whose Proposals are eliminated from further consideration in accordance with the RFP schedule outlined in Section II.D. APS reserves the right, in its sole discretion, to not select any Proposals for negotiation of an agreement if warranted by its evaluation.

## **IX. Required Documents and Information**

### **A. Confidentiality Agreement**

Each Respondent must sign the CA available in the "Download Documents" tab in PowerAdvocate and upload the signed copy via the "Upload Documents" tab no later than May 30, 2022. Any Respondent that fails to upload in PowerAdvocate its executed CA by this deadline will be ineligible for further participation in this RFP.

APS requires all Respondents to execute the CA as written without any changes. Upon receipt, APS will execute and upload a copy of the fully executed CA to each Respondent in PowerAdvocate. Respondents can then download the executed CA from PowerAdvocate at their convenience. Once APS has executed the CA, the Respondent will receive relevant messages and notices through the "Messaging" tab in PowerAdvocate. Once the May 30<sup>th</sup> due date for CA agreements from Respondents has passed, the Respondent will have access to all RFP-related documents. RFP-related documents include term sheets and data sheets necessary to submit Proposals.

In some cases, a Respondent may partner with another entity (each such entity, a "Partner") to meet the minimum experience requirements established in this RFP. In such cases, the Respondent must include the signature of authorized representatives of each such Partner as part of its fully executed CA. Any Respondent that requires a Partner to submit the Proposal must also demonstrate to APS's reasonable satisfaction that the partner relationship has been legally established, is legally enforceable, and allows Respondent to meet the minimum experience requirements.

Without the signature of any applicable Partner, a Respondent does not have permission to share confidential information (as defined in the CA) with such Partner, and such Partners' experience will not be considered in APS's evaluation of the relevant Proposal.

### **B. Proposal**

The information provided by Respondent in PowerAdvocate constitutes the Proposal. Each Respondent must use the PowerAdvocate platform to upload all information pertaining to its Proposal(s), in accordance with all requirements and instructions set forth in this RFP and in PowerAdvocate. Respondents are encouraged to submit their Proposals as early as possible to avoid filing delays due to heavy use of PowerAdvocate immediately before the Proposal submission deadline of July 8, 2022.

For a Respondent's Proposal to be considered conforming, the Respondent must complete and/or upload (in the case of documents) the following, within the PowerAdvocate platform and in the format required, no later than July 8, 2022.

Non-conforming Proposals may be eliminated from further consideration, as described in Section VIII.A.

**1. Conforming Proposal:**

- a. A complete response to each question and a legible copy of each document specified in "Download Documents" tab in PowerAdvocate.
  - i. This includes, but is not limited to, the Cybersecurity Third Party Risk Review Questionnaire ("TPRR") and the Data Security and Privacy Addendum ("DSPA").
- b. Executive Summary, described in Section IX.C.
- c. Executed Proposal certification, described in Section IX.D.
- d. Project schedule, shown in weeks, based on an assumed date for contract execution (which shall be stated in the schedule).
- e. Preliminary one-line diagram for the project with meter location(s) and specified delivery location, which shall be the Delivery Point as that term is defined in the resulting agreement.
- f. Technical Data form, which identifies specific criteria used to calculate the expected energy production for the proposed facility. Although APS has provided certain default assumptions based on industry standards, Respondents may use criteria that differ from these assumptions by identifying the difference and reason for this variation. The energy production profile submitted by each Respondent must be calculated based on the same set of technical criteria supplied to APS by the Respondent in the Technical Data form.
- g. If proposing energy storage, include documentation that supports compliance with "Appendix W" (which specifies APS's safety standards and will be provided to Respondents separately through PowerAdvocate) and demonstrates product and personnel safety.

**C. Executive Summary**

Respondents are expected to provide an Executive Summary for ease of initial Proposal review by APS and 1898 & Co. Details and requirements for the Executive Summary are set forth in Appendix B to this RFP

**D. Proposal Certification**

APS expects Respondents to provide a Proposal certification form that demonstrates that the signatory has full authority to bind the Respondent to all of the terms and conditions contained in its Proposal. The Proposal certification document that all Respondents must use is located in the "Download Documents" tab in PowerAdvocate.

**E. Cybersecurity Documents**

Cybersecurity is critically important to the APS system and must be evaluated in connection with any resources that will directly or indirectly touch the

system. Following the CA deadline, APS will provide to participating Respondents certain documents that allow APS to assess Respondents' cybersecurity maturity and any cybersecurity risks that may be associated with proposed resources.

## **X. Proposal Fee and Proposal Submittal Guidelines**

Respondents may submit one or more Proposals. A Respondent that wishes to submit more than one Proposal must register on the PowerAdvocate platform as a separate entity for each Proposal in addition to its first Proposal. For example, if "Power Company" wishes to submit three (3) Proposals, it must register the three proposals as "Power Company 1", "Power Company 2", and "Power Company 3" separately on the PowerAdvocate platform.

Each Proposal is subject to a non-refundable RFP submission fee (the "Proposal Fee"), in accordance with the following fee schedule:

Project size less than or equal to 25 MW:	\$5,000
Project size greater than 25 MW:	\$10,000

A single Proposal fee allows a Respondent to offer both a PPA and BTA price for the same proposed resource. Further, Respondents are permitted to submit both a flat price and an escalating price within the same single Proposal for resource bid under a PPA transaction structure. Any other variations to project/Proposal characteristics are required to be submitted via a separate Proposal and additional Proposal fee:

- Pricing variations outside of fixed/escalated PPA pricing described above
- Term of transaction
- In-service date
- Technology
- Site/Location of facility
- Size/Capacity

Wiring instructions for the submittal of the Proposal fee will be made available to participating Respondents along with other documents following the CA submittal deadline.

## **XI. Miscellaneous**

### **A. Right to Terminate Negotiations**

If APS cannot reach an agreement 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, and/or cancel this RFP.

### **B. 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.

### **C. 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, in its judgment, the overall Proposal may result in the greatest value to APS's retail customers.

### **D. No Liability**

Respondents that submit Proposals do so without legal recourse against APS or its officers, directors, employees, agents, contractors, 1898 & Co. or the Independent Monitor based on APS's rejection of any Proposal or failure to execute any agreement in connection with this RFP. Neither APS nor any of its officers, directors, employees, agents, contractors, 1898 & Co. or the Independent Monitor shall be liable to any Respondent or to any other party, in law or equity, for any reason whatsoever relating to APS's acts or omissions arising out of or in connection with this RFP.

### **E. 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 CA described in Section IX.A.

### Appendix A – Table of Acronyms Used in this RFP

Acronym	Definition
1898 & Co.	1898 & Co., a division of Burns & McDonnell
AC	alternating current
ACC	Arizona Corporation Commission
AD/CVD	antidumping duty / countervailing duty
AGC	automatic generation controls
AMI	advanced metering infrastructure
APS	Arizona Public Service
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers
BESS	battery energy storage system
BTA	or any similar agreement that enables the development of the resource by Respondent and the ownership of the resource by APS
BTM	behind the meter
C&I	commercial and industrial
CA	confidentiality agreement
CAES	compressed air energy storage
CAISO	California Independent System Operator
CO	carbon monoxide
COD	Commercial Operation Date
DC	direct current
DR	demand response
DSPA	Data Security and Privacy Addendum
EE	energy efficiency
EMS	energy management system
EPC	engineering, procurement, and construction
FERC	Federal Energy Regulatory Commission
FMV	fair market value
FTM	front of the meter
IM	independent monitor
IRP	Integrated Resource Plan
ITC	investment tax credit
kW	kilowatt
kWh	kilowatt-hour
LMR	load modifying resource
MST	Mountain Standard Time
MW	megawatt
MWh	Megawatt-hour
NO <sub>x</sub>	nitrogen oxide(s)
NREL	National Renewable Energy Laboratory
OASIS	Open Access Same Time Information System
OATT	Open Access Transmission Tariff
OEM	original equipment manufacturer

<b>Acronym</b>	<b>Definition</b>
PM	particulate matter
PPA	Power Purchase Agreement
PTC	production tax credit
PVRR	present value revenue requirement
RFP	All Source Request for Proposal
RIM	ratepayer impact measure
RTU	remote terminal unit
SCT	societal cost test
SO <sub>2</sub>	sulfur dioxide
TA	tolling agreement
TMY	typical meteorological year
TPRR	Third-Party Risk Review

## **Appendix B – Executive Summary**

APS requires a brief Executive Summary to accompany all Proposal information. The summary should be no more than 10 pages and should serve as a general summary of the Proposal, including the information specified below, to the extent it is applicable to the Proposal.

### **I. Introduction / Overview**

- a. Proposed Project/Program overview, including company proposing project, and high-level summary of the project
- b. Describe if Proposal is for a new facility/Program, an existing facility, and if Respondent is proposing an asset sale

### **II. Capacity**

- a. Provide the nameplate capacity in MW
- b. Provide the maximum delivered capacity MWac
- c. What is the proposed project's annual capacity factor?
- d. What is the expected delivered annual energy (MWh)?

### **III. Transaction Structure/Term/Pricing**

- a. Provide transaction structure
- b. Provide PPA term length
- c. Provide baseline pricing structure
  - i. BTA price and/or PPA Price
  - ii. PPA base escalation rate, if applicable
- d. Provide indicative pricing on PPA for a ten (10)-year term if PPA term in Proposal is something other than ten (10) years. This applies only to renewable, energy storage, and combined renewable and energy storage projects, as described in Sections VII(A) and (B) in the RFP.
- e. Provide a description of any deviation from requirements set forth in the RFP that Respondent believes would result in greater efficiencies or cost effectiveness of its Proposal. Quantify any price impact that would result from such deviations.

### **IV. Summary of Technology including Key Equipment**

- a. Provide Gas Turbine Generators/reciprocating engines/PV Panels/Inverters/ Wind Turbines/Batteries/Thermostats, etc.
- b. Specify any emissions control equipment
- c. Include OEM, model, and quantity
- d. Specify the country of origin for all material equipment
- e. Provide a description of the configuration of equipment

**V. Interconnection Status**

- a. List the primary interconnection voltage
- b. What is the interconnection point (i.e., substation, developer property)? (“Interconnection Point” means the physical point at which electrical interconnection is made to allow parallel operation of the Facility with the APS electrical distribution system, as more fully described in the Interconnection Agreement)
- c. What is the APS delivery point (i.e., substation)?
- d. Has Respondent submitted an application for generator interconnection?
  - i. If yes, when did Respondent submit the application and what is the status of Respondent's interconnect application?
  - ii. If no, what is Respondent’s plan to ensure that the proposed resource will meet the proposed in-service date without any interconnection delay?

**VI. Past Experience**

- a. Number of projects larger than 25 MW in the past five (5) years
- b. Types/technologies for projects listed above
- c. Project locations for projects listed above
- d. Aggregate capacity installed by Respondent over time (MW)
- e. Highest single project capacity installed (MW)
- f. Total capacity of projects in pipeline (under contract) (MW)

**VII. Fuel and Water Supply Arrangements** (if applicable)

- a. Describe the fuel transportation and supply arrangements for the project. Describe the proposed interconnection point for Fuel, including distance needed for interconnection
- b. Indicate if Respondent has applied for a Request for Gas Service and if Respondent has firm water rights for the life of the proposed project.

**VIII. Project Development Schedule**

- a. Provide a summary of the project schedule for the project. Include a brief description of the key milestone dates for the project, including financing and construction milestones and execution of contracts for major equipment.
- b. Describe the process of signing up customers for non-supply side Proposals

**IX. Project Siting Strategy**

- a. Provide proposed site location (including map), coordinates and parcel size

- b. Include description of site's current and previous use
- c. Describe the status of site control including what type of site control has been exercised (e.g., ownership, option, Right of Way grant?)
- d. Any resource to be developed wholly or partially on state-owned land must demonstrate that Respondent is scheduled for lease approval on the AZ State Land Board of Appeals Meeting Notice and Agenda on a date prior to shortlisting

**X. Project permitting plan**

- a. Identify the permits required, status of approvals, and plans with schedules to finalize all required permits for construction and operation of the facility, including all certification and land use approvals
- b. If the project is permitted and in operation, list the following:
  - i. Permit source and expiration date (include all sub-conditions)
  - ii. Operating hours
  - iii. Emissions limitations
  - iv. Start/stop limitations
  - v. Minimum run times
  - vi. Other embedded permit limitations, e.g., zero discharge requirement, air-cooled condenser requirement, recycled cooling water requirement, etc.

**XI. Financial Strategy**

- a. Provide a description of the financing plan for the project including sources of debt and equity financing and recent experience financing similar projects

**XII. Tax Strategy**

- a. Provide a detailed description of Respondent's holistic strategy regarding the investment tax credit ("ITC")/production tax credit ("PTC") capture for the project
- b. Provide Respondent's specific strategy, including critical path items, to satisfy the ITC and PTC commence construction guidance, pursuant to either the "physical work test" or the "five percent (5%) safe harbor," at the earliest realistic time to capture the maximum ITC/PTC

**XIII. AD/CVD Mitigation Strategy**

- a. Provide Respondent's view of expected outcome of current Department of Commerce tariff investigation and impacts on proposed project (including price, availability of equipment, and schedule)
- b. Provide a detailed description of Respondent's strategy to

mitigate the impacts described above

**XIV. Slave Labor Strategy**

- a. Provide a brief description of Respondent's plan for avoiding the use of slave labor when building the proposed facility/program and acquiring equipment for the proposed facility/program

**XV. Safety**

- a. Provide a brief description of Respondent's strategy for ensuring safety at its project sites and in connection with any of its proposed programs.
- b. Provide current OSHA Total Recordable Injury Rate ("TRIR") and Worker's Experience Modification Rating ("EMR")

**Appendix C – Scoring Matrix**

<b>Categories</b>	<b>Criteria</b>	<b>Weightage</b>	<b>Total Points</b>	<b>Points</b>	<b>Proposed Scoring</b>
<b>Resource Alignment</b>	<b>Dispatchability</b>	25%	500	100	100-APS has full dispatchability 25- APS has limited dispatchability 0- APS has no dispatchability
	<b>Carbon Emissions Profile</b>			200	200 - zero emissions 50- Greater than zero but less than average APS emissions rate (lbs/MWh) 0 - Greater than average APS emissions rate (lbs/MWh)
	<b>Load Factor Impacts</b>			100	This category will only give bonus points for being available fully or partially during the High Energy and Capacity Value hours. 100 - Available all hours from HE17 to HE22 from June to September at full capacity (100% capacity factor) Points will be reduced by a formula to capture actual capacity factor of the project during those hours only. HE = Hour ending; (4pm-10pm).
	<b>Flexibility</b>			100	100- Ramp rates of 10% per minute of nameplate capacity or higher 50 - Ramp rates of at least 3% per minute of nameplate capacity 0 - Ramp rates less than 3% per minute of nameplate capacity
<b>Technology /Project Risk</b>	<b>Site Control</b>	12.5%	250	50	50: Respondent possess direct ownership of the site, free and clear with no encumbrances. 25: Respondent possess direct ownership of the site, with encumbrances OR Respondent is a lessee on an existing lease of the site OR Respondent possesses an exclusive and non-contingent option to purchase or lease the site. 0: Respondent does not possess direct ownership of the site, free and clear with no encumbrances. A letter of intent is NOT an acceptable form of site control.
	<b>Interconnection Status</b>			100	100- Executed IA/Negotiations. 75- FIS completed 25- SIS completed. 0 - Applied/Will apply
	<b>Supply Chain</b>			100	100 – New Project has less than 50% of major equipment of system sourced from China, Cambodia, Malaysia, Thailand, and Vietnam AND Respondent has a preferred supplier agreement for Proposal; OR Proposal is for an existing project 50 – Less than 50% of major equipment of system sourced from China, Cambodia, Malaysia, Thailand, and Vietnam OR Respondent has a preferred supplier agreement for Proposal 0 –More than 50% of major equipment sourced from China, Cambodia, Malaysia, Thailand, and Vietnam. Respondent does not have a preferred supplier agreement for proposal.

<b>Respondent Risk</b>	<b>Respondent Commercial Experience</b>	12.5%	250	100	For existing or new/to-be constructed projects 100 : Respondent has previously developed a project with a capacity over 75% of proposed project size 50: Respondent has previously developed a project with a capacity between at least 50%-75% of proposed project size
	<b>Respondent Safety</b>			50	50: – Respondent has NONE of the following; Worker's Experience Modification Rating (EMR) > 1.0, and OSHA Total Recordable Injury Rate (TRIR) - TRIR >2.0 25 - Respondent has ONE of the following; EMR > 1.0, TRIR > 2.0 12 – Respondent has both of the following; EMR > 1.0, TRIR > 2.0
	<b>Financial Strength</b>			100	100 - The Bidder has obtained financing for at least 3 projects of similar technology and size; has proven financial capability with a favorable bond rating; and provided 3 years of financial statements demonstrating it is financially capable; is not in bankruptcy proceedings; or any current or threatened litigation with APS. 50 - The Bidder has financed at least 1 power project; has demonstrated reasonable financial capability based on financials and/or has a favorable bond rating; is not in bankruptcy proceedings or any current or threatened litigation with APS. 0 - None of the above
<b>Cost</b>	<b>Reliable LCOC</b>	40%	800	800	800 points for top decile. 100 point reduction for each subsequent decile in LCOC value. Minimum score 100 points.
<b>Cost</b>	<b>LCOE</b>	10%	200	200	200 points for lowest LCOE. 1% reduction in point for every 1% increase in LCOE value. Minimum score 50 points.