CPA Storage RFO Q&A

# General Clarifications

1. **Cycling Limits:**
	1. In the Compliant Submission Specification section of the RFO Protocol, the section regarding “Operation” should be understood to mean that we expect storage resources to dispatch approximately 200 cycles/year. For purposes of PPA pricing for capacity maintenance, bidders can assume 200 cycles. CPA is also interested in the possibility of higher cycling limits and will accommodate pricing offers for alternative cycling options as described in ii below.
		1. All storage projects must be able to provide 200 cycles/year while maintaining nameplate capacity performance throughout the entire project tenor.
		2. CPA does wish to retain the option of more cycles per year. Please include in your narrative response potential alternative charge structures for additional cycles. These additional cycling options may be negotiated during the final negotiations phase.
			1. Projects can offer tiered capacity pricing based on yearly cycling totals (i.e. 100-200 cycles/year = $X/kW-mo; 200-300 cycles/year = $Y/kW-mo; 300-400 cycles/year; $Z/kW-mo, etc)
		3. Cycling limits (either 200 cycles per year or another agreed to cycle limit) will be incorporated in the final text of the Energy Storage PPA Agreement.
2. **Daily Dispatch Limits:**
	1. In section 3c of the RFO Protocol detailing “Compliant Submission Specifications” there is a line item “Daily Dispatch Limits”. This line item is meant to indicate that there should be no limit on the number of times a day that CPA may dispatch the storage resource, but the annual operational limit of 200 cycles per year holds. Effectively, this means that CPA must limit overall dispatch to 200 full cycles per year but may dispatch arbitrarily small or large amounts of energy in any given day.
3. **Acceptable Number of Bids:**
	1. Vendors are limited to submitting one completed bid package per facility location. Vendors are welcome to submit bids for as many distinct project locations as they wish. These submissions should be entirely distinct submission packages, each with their own copy of all relevant documents.
	2. However, for each unique project location vendors may submit a maximum of **one** submission package with up to **two** Offer Form Templates. One of the Offer Form Templates must represent a 4-hour duration storage project. At the bidder’s option (not required), a second Offer Form Template may be submitted presenting an alternative duration configuration (either longer or shorter than four hours); the storage duration is the only feature of the project that may differ between the two offer forms. Any additional configuration options must be detailed in writing in the Project Narrative component of the submission and will be assessed as options if the original proposal makes it to the shortlisting phase.
4. **Guaranteed Efficiency**
	1. Storage projects are required to provide an offer with a specified minimum round-trip efficiency throughout the contracted project tenor. CPA will only accept offers with a round-trip efficiency of 60-100%. Efficiency is measured by the total amount of energy going into the project and station versus the total amount of energy coming out of the project. All energy consumed on the project site will be counted against this measurement and will serve to reduce measured project efficiency.

# Questions & Answers

## Modeling and Storage Cycling

1. The overview states that we cannot limit the number of times that the battery is cycled daily. How can we price an offer if you cannot state a limit?
	1. See General Clarification 1, above.
2. Please provide a sample daily duty cycle showing expected dispatch of battery energy storage system (BESS) over the course of a year. If this is not available, then please describe how Buyer plans to dispatch the asset for ancillary services such as voltage support, spinning and non-spinning reserve etc. Seller needs to understand frequency of dispatch and type of product for optimizing BESS design.
	1. Daily cycling examples will not be provided with this RFO, but battery usage will by default be constrained by the cycling limits described in the General Clarification #1 above. Proposed resources will be analyzed via Ascend Analytics’ BatterySimm optimization platform, which will simulate storage dispatch across day-ahead, real-time, and ancillary markets at a sub-hourly level throughout the project tenor while accounting for dispatch limitations due to RA-compliance requirements, as described in the RFO Protocol. All dispatch to non-RA markets will be treated as additional revenue streams, effectively making a resource more cost-effective to CPA.
3. The RFO lays out difference in cycle count according to duration of the offer. However, given a fixed sized BESS, the cycle count will be the same regardless of what power and duration it is used at. Can you clarify the cycle count requirement?
	1. The cycle count is counted relative to the energy capacity of the storage resource. You are correct that a fixed energy capacity resource will have the same cycle count regardless of the power and duration. The description in the RFO protocol is intended to clarify that a resource *proposed* as a 2-hour resource will still have the same energy cycling requirements as a 4-hour resource, and hence will have more cycles relative to its nameplate *power* capacity.
4. When evaluating the energy (DA and RT), will Ascend Analytics assume that the CAISO NGR design has been modified to allow for use limited resource dispatch in Real Time? How do you measure RT dispatch?
	1. Please refer to Section 4a of the RFO Protocol for details on modeling. Resources will be modeled as first economically bidding all capacity into the day-ahead market between 4pm-9pm in order to qualify for RA capacity, as described in the CAISO Business Practice Manual for Reliability Requirements[[1]](#footnote-2). All capacity remaining after DA market clearing will be optimized for dispatch into real-time and ancillary market to maximize revenue.

## Project Specifications

1. Is the 10 MW a minimum with or without storage included? Can you combine both to meet the 10 MW minimum?
	1. This 2019 Reliability RFO is only for standalone storage projects. Developers with generation projects should refer to CPA’s [2019 Clean Energy RFO](https://www.ascendanalytics.com/cpa-clean-energy-rfo).
2. Can you submit alternative bid for longer than four hours?
	1. Yes. The primary offer must be submitted as a 4-hour resource, but the alternative offer, may be longer (or shorter) duration. Please refer to General Clarification 3b.
3. The RFO protocol states that operational round trip efficiency must be greater than 60% for the life of the project. Would CPA consider offers from projects with a lower efficiency, say in the range of 50-59%? If so, how do you score or weight the importance of round-trip efficiency?
	1. No, the minimum round-trip efficiency allowable is 60%.
4. What are CPA's requirements around battery SOH through the term of the agreement?
	1. As stated in the RFO Protocol, bidders are required to maintain full nameplate capacity of the storage resource throughout the 15-year term. The State of Health (SOH) of the resource is not specifically assessed, provided that the resource can deliver the entirety of the contracted nameplate capacity throughout the contract term.
5. We understand that energy storage facilities must be in the range of 10-100 MW. However, is CPA seeking to procure more than 100 MW in total?
	1. CPA may contract with multiple projects, however any one project is limited to a maximum capacity of 100 MW as described in the RFO Protocol.
6. Please confirm that the Guaranteed Efficiency Rate as defined in the Energy Storage Agreement is net of all losses and plant auxiliary loads.
	1. The measured efficiency rate includes all losses, plant auxiliary loads, general station use, or any components that reduce measured efficiency. This measured efficiency must be maintained above the Guaranteed Efficiency Rate.
7. The RFO Protocol states a minimum of 98% availability each month. Would CPA consider projects with a lower availability, say 95-97%? If so, how do you score or weight the importance of availability?
	1. Bidders may provide an alternative offer that includes a different availability percentage. However, CPA strongly prefers the stated 98% availability amount. Note that the 98% availability requirement is measured only during CAISO On-Peak hours and is inclusive of scheduled outages. Please refer to Exhibit P of the Energy Storage Agreement.
8. Availability of 98% each month does not allow for any maintenance or is schedule maintenance excluded in the availability calculation?
	1. Please refer to Exhibit P of the Energy Storage Agreement. Availability is only calculated during CAISO On-Peak hours, leaving all other hours available for maintenance. UNAVAILHRS will include all On-Peak hours that the Facility is unavailable (including maintenance) for any reason other than an Excused Event.
9. Does a project need to maintain the same capacity or MW throughout contract term?
	1. Yes. The bidder must maintain at (or above) the specified nameplate capacity in the contract. CPA will not compensate vendors for any capacity beyond the contracted amount.
10. Can the alternate non-conforming offer be for a duration less than 4 hours?
	1. Yes.

## Qualifying Projects

1. Would CPA be open to a solar + storage bid?
	1. In this RFO, CPA is only seeking offers from standalone storage resources. However, CPA has released a separate 2019 Clean Energy RFO that is seeking all forms of clean energy generation – including solar+storage projects. Please see <https://www.ascendanalytics.com/cpa-clean-energy-rfo> for more info.
2. Can a standalone project be located outside your service territory? For instance, would a project in SCE territory be able to qualify to bid but not located in L.A. or Ventura counties? Is CPA prioritizing LA County and Ventura County areas or the CAISO LA Basin LRC and the CAISO Ventura / Big Creek LRC?
	1. Projects may be located within or outside of California, with deliverability to the CAISO grid. This includes SCE territory. CPA has a preference for projects located within Los Angeles and Ventura counties (assuming CAISO deliverability). Projects that qualify as Local Resource Adequacy (RA) resources within the LA Basin or Big Creek/Ventura local areas will receive higher capacity value than a generic system RA resource.
3. Does CPA have technology preferences or exclusions?
	1. No. Any standalone storage resource technology is allowable, provided that it meets CAISO Resource Adequacy compliance and all other requirements listed in the RFO protocol.
4. Is a project outside of the CAISO but in CA and dynamically scheduled to CAISO eligible?
	1. Yes.
5. Are projects preferred anywhere within LA and Ventura counties, or within CPA service territory?
	1. CPA prefers projects located within LA and Ventura counties (assuming CAISO deliverability).
6. Is the clean energy RFO also for stand-alone distributed energy storage... or just renewables plus storage? There was specific reference on it for distributed storage. Just want to clarify if distributed storage should be bid separately in that RFO, or this RA RFO?
	1. This 2019 Reliability RFO is for stand-alone storage with 4-hour duration (equivalent) capacity of 10-100 MW. The [2019 Clean Energy RFO](https://www.ascendanalytics.com/cpa-clean-energy-rfo) Distributed Track accepts stand-alone storage offers for in-front-of-the-meter projects 10 MW in capacity or smaller.
7. Will CPA consider hybrid offers that pair a battery energy storage system with an existing natural gas combustion turbine?
	1. CPA will not be procuring any fossil fuel generation in this RFO, including output of a gas fired facility. Projects eligible for this RFO are standalone storage projects.

## General RFO Questions

1. Can the CCA offer any idea of how much they are seeking to procure?
	1. CPA will procure an amount consistent with the CPUC’s final Decision Requiring Electric System Reliability Procurement for 2021-2023 in the Integrated Resources Plan proceeding (R. 16-02-007).
2. What % of importance is the disadvantaged communities in the overall decision?
	1. Benefits to Disadvantaged Communities (DACs) is one of several evaluation criteria used to evaluate proposals. If your project demonstrates benefits to DACs, please describe these benefits within the Offer Form Template Qualitative Assessment and Project Narrative.
3. What % of importance is industrial zoning in the overall decision?
	1. Environmental Stewardship is one of several evaluation criteria used to evaluate proposals. If your project is located on an industrial zoned parcel or repurposed industrial/energy site, please describe within the Offer Form Template Qualitative Assessment and Project Narrative.
4. What would happen in the case of a default on the part of the CPA?
	1. Please refer to the Energy Storage Agreement Article 11.
5. Can the CPA clarify if a rule 21 interconnection will meet your needs or if a WDAT or CAISO cluster interconnection will be required?
	1. Projects eligible for Rule 21 interconnection are not eligible for this RFO. A WDAT or CAISO interconnection is required.
6. With the current SCE wildfire shut offs, how does the CPA anticipate this being addressed in an agreement? What I mean is if the lines are down, the will the developer still be held accountable to deliver energy? How will this be addressed in the agreement?
	1. Please review the Energy Storage Agreement for terms related to Transmission System Outages and System Emergencies.
7. As SCE’s new WDAT interconnection charges are still in flux should bidders provide a price both with and without the charges?
	1. Bidders are responsible for estimating their project costs, and CPA cannot provide guidance on offer price.
8. What happens if project capacity is reduced due to IC or permitting AFTER submission of RFO is made?
	1. In order to enter into shortlisting contract negotiations with CPA, Bidders must submit a deposit as described in RFO Protocol Section 8. If capacity or other material offer terms change during the negotiation process, the Bidder may be disqualified.
9. Is it mandated to have an IC queue # to submit a bid? If not, would a Pre-App qualify for fast track COD deadline?
	1. No, an interconnection queue number is not a requirement. Priority fast track treatment will be given to projects that can offer a COD on or before August 1, 2021 on a case by case basis.
10. Will CPA provide a "lock box" or is there absolutely no payment guarantee?
	1. CPA will not provide any buyer security. Please refer to the RFO Protocol Section 6.
11. Is the capacity payment considered $/kW-mo on nameplate capacity or available capacity at the time (incl. degradation)?
	1. Please refer to the Compensation section of the Energy Storage Agreement.
12. Basic contract structure: my understanding is that the developer will only receive the $/kW-mo payment from CPA as revenue and that CPA being the scheduling coordinator, will receive all the revenue generated by the storage asset. Is this correct?
	1. Yes.
13. Is CPA open to a bid with increasing capacity over the term of the agreement? For example, capacity starts at 10 MW year 1 and increases 5 MW at year 5 and another 5 MW at year 10?
	1. This should be submitted as an alternative offer. The project’s conforming offer should be submitted with a fixed capacity, but alternative capacity offers may be described in the Project Narrative.
14. Can CPA provide some financials for developers to judge credit risk?
	1. CPA financial statements are publicly available on the CPA website: <https://cleanpoweralliance.org/>
15. Partner A is seeking to partner with Partner B on a 100 MW stand-alone storage offer.  Partner A has the site, permits and interconnection.  Partner B has the battery vendor relationships and the project execution experience.  In their collaboration, the Partners would share information and work together to come up with the best possible offer to CPA.  We would spell out the relationship in our offer submission to CPA. Partner B is also planning to offer a different 20 MW project into the RFP without the involvement of Partner A. The exclusivity agreement asks respondents to certify that they have not engaged with other respondents.  If we fully disclose the partnership as outlined above, will we run afoul of the agreement?
	1. Please describe any developer and relevant experience within the Project Narrative. Bidders should seek their own legal counsel review of the Exclusivity Agreement terms.
16. The NDA posted on the RFO website is only between the developer and CPA. Will Ascend Analytics have access to any confidential information in a response to the Reliability RFO such as pricing?
	1. Please refer to Section 12 of the RFO Protocol for a description of confidential treatment of RFO submissions.  Ascend Analytics, as a contractor to CPA, is also required to maintain the confidentiality of all RFO submissions.
1. CAISO Business Practice Manual for Reliability Requirements version 44; <https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Reliability%20Requirements> [↑](#footnote-ref-2)