

***Transmission Competitive Solicitation Questions Log
Question / Answer Matrix
2018/2019 TTP – Phase 3***

No.	Comment Submitted	ISO Response	Assigned To:
1	<p>We are wondering. Have you had a chance to discuss and resolve the issue about CAISO providing the modeling capability for evaluating the momentary cessation issue?</p> <p>We are trying to study and evaluate the reactive support needs at Round Mountain and Gates in order to provide a competitive project bid as part of the CAISO competitive solicitation process for this important reliability issue. We would like to achieve similar results to what CAISO has achieved and the current models do not show this for the momentary cessation issue. Our goal is to benchmark the CAISO results and evaluate various reactive support alternatives as identified in the 2018-2019 CAISO transmission plan.</p>	<p>The CAISO has been working with industry and NERC <u>on an initiative to address identified adverse characteristics of inverter-based resource performance during grid faults including an to include the</u> evaluation of momentary cessation impacts. This work is ongoing. <u>Due to the lack of better information at this time, a generic EPCL model was developed to apply agreed upon universal momentary cessation settings on all selected inverter based resources to investigate, directionally, the impacts of momentary cessation. With that said, U</u>pon request, the CAISO will provide the EPCL, subject to the NDA as identified on the ISO transmission planning process webpage (link below)-.</p> <p>http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx</p>	Planning
2	<p>I understand the process requires an “Option to Collaborate” response from all participants within 10 Business Days ...</p> <ul style="list-style-type: none"> • What does the “Option to Collaborate” obligate us to? • Are there any financial obligations? • When is the deadline for submitting the “Option to Collaborate” response? 	<p>The process does not require collaboration. The ISO provides a public venue in the first 10 days of the solicitation window for parties to announce their interest in collaborating and are open to be contacted by other parties.</p> <p>Prior notice to the CAISO is not a prerequisite for a Project Sponsor to submit an application, including a joint application, to finance, own, construct, operate, and maintain a Regional Transmission Facility under Section 24.5.</p>	Grid Assets
3	<p>What is the refundability of the \$75,000 deposit if a bidder decides to withdraw a bid after the application deadline?</p>	<p>The applicant only pays for costs incurred during the process associated with evaluating their application. If the costs are greater than \$75,000 but less than \$150,000 the applicant will be billed for the difference (see CAISO tariff section 24.5.6)</p>	Grid Assets

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4	<p>I have a client that is determining to becoming a PTO, the construction is the question it is all the other things a PTO is required to do on a day to day basis. I had a question after I read through the posted “2018–2019 Transmission Planning Process Phase 3 – Competitive Solicitation” presentation. My question or comment is what are the next steps of becoming a PTO in parallel of constructions. I know some of the answers but there isn’t much posted of what needs to happen between being awarded and the asset(s) become operational. I asked for a external checklist from the MPAI group to be posted but will that be enough for a awarded PTO to determine the full scope of what needs to happen while constructing, modeling and operational of the asset?</p>	<p>The successful project sponsor is required to be a PTO. The APSA defines the rights of the approved project sponsor through the construction period up to commercial operation. The pro forma Approved Project Sponsor Agreement can be found on the Transmission Planning page of the CAISO web site. Prior to commercial operation the approved project sponsor will be required to sign the Transmission Control Agreement (TCA) and meet the identified requirement for a PTO. PTOs have many requirements as defined in the CAISO tariff and TCA. CAISO staff will work with the successful candidate to ensure that all requirements are met for the APSA and TCA to ensure a timely transition.</p>	Grid Assets
5	<p>I have a question about the 2018-2019 Transmission Plan. Specifically, I am seeking clarification with regard to the Round Mountain 500 kV Dynamic Reactive Support project and how it relates to PG&E’s proposed Round Mountain 500 kV Voltage Support Project. I am wondering if there is anyone at CAISO who I should be contacting to have my questions answered.</p>	<p>These are the same project.</p>	Planning
6	<p>The CAISO posted slide deck (slide 4), indicates that a comparative analysis of the bids are done several months after the bid window closes. Our client is wondering if that means they are allowed to improve/refine the capital costs prior to the comparative analysis stage is reached, or does the submitted capital cost is firm and not updatable? If our client is selected is there an opportunity to refine capital cost afterwards as well? Tariff Section 24 doesn’t mention the possibility that improving or refining the bid is permissible.</p>	<p>The competitive solicitation process does not allow applicants to improve or refine capital costs once the proposal window has closed. Once selected to construct the project, the Approved Sponsor will execute the APSA which will include the cost provisions from their proposal.</p>	Grid Assets

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7	<p>In APPENDIX I: Description and Functional Specifications for Transmission Facilities Eligible for Competitive Solicitation the rated MVAR of the reactive devices are described as: For Round Mountain Rated MVAR: +500/-500 MVAR. The entire inductive (absorption) range should be continuously available when the voltage is in the 500 kV – 550 kV range and the entire capacitive (injection) range should be available when the voltage is in the 473 kV – 540 kV range.</p> <ol style="list-style-type: none"> 1. Please confirm that this means that the device must be capable of injecting 500 MVAR capacitive power at an operating voltage of 473 kV and that the device must be capable of absorbing 500 MVAR inductive power at an operating voltage of 500 kV. 2. Please provide required V/I curve(s) for the reactive device at base 500 kV and 500 MVA. 3. Please indicate in the V/I diagram, the defined capacitive operating points at 473 kV (0.946 p.u.) 500 kV (1.0 p.u.) and 540 kV (1.08 p.u.), along with the defined inductive operating points at 500 kV (1.0 p.u.) and 550 kV (1.1 p.u.) respectively. 	<ol style="list-style-type: none"> 1. It is required that the reactive support device be able to inject 500 Mvar at 473 kV and absorb 500 Mvar at 550 kV. 2. The reactive support device should be able to perform in the voltage range and with the response time specified in the functional specification. All different technologies with different V-I curves will be considered as long as they meet the performance requirements in the functional specification. 3. The device has to inject up to 500 MVAR or absorb up to 500 MVAR in the voltage range of 473-550 kV under 	Planning
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		steady-state conditions. V/I curve depends on the technology of the device	
8	<p>For Gates Rated MVAR: +800/-800 MVAR at the Gates 500 kV bus. The entire inductive (absorption) range should be continuously available when the voltage is in the 500 kV – 550 kV range and the entire capacitive (injection) range should be available when the voltage is in the 473 kV – 540 kV range.</p> <ol style="list-style-type: none"> 1. Please confirm that this means that the device must be capable of injecting 800 MVAR capacitive power at an operating voltage of 473 kV and that the device must be capable of absorbing 800 MVAR inductive power at an operating voltage of 500 kV. 2. Please provide required V/I curve(s) for the reactive device at base 500 kV and 800 MVA. 3. Please indicate in the V/I diagram, the defined capacitive operating points at 473 kV (0.946 p.u.) 500 kV (1.0 p.u.) and 540 kV (1.08 p.u.), along with the defined inductive operating points at 500 kV (1.0 p.u.) and 550 kV (1.1 p.u.) respectively. 	<ol style="list-style-type: none"> 1. It is required that the reactive support device be able to inject 800 Mvar at 473 kV and absorb 800 Mvar at 550 kV. 2. The reactive support device should be able to perform in the voltage range and with the response time specified in the functional specification. All different technologies with different V-I curves will be considered as long as they meet the performance requirements in the functional specification. 3. The device has to inject up to 800 MVAR or absorb up to 800 MVAR in the voltage range of 473-550 kV under steady-state conditions. V/I curve depends on the technology of the device 	Planning

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9	Can the CAISO provide an itemized list of the PV units that comprise the generation totaled in Figure B1.2-21. 2020 Summer Peak case with high renewable output. An outage of the Gates-Midway 500 kV line with a three phase fault, assuming momentary cessation of inverters. Solar PV generation output?	The base cases and dynamic data on MPP could be tuned to run the studies and obtain the same results presented in Figure B1.2-21. Upon request, the CAISO will provide the latest base case, dyd, EPCL and instructions to run studies, subject to the NDA as identified on the ISO transmission planning process webpage (link in response to question 1).	Planning
10	Can the CAISO define the bounds of the non-competitive scope and the competitive scope in detail?	The interconnection PTO will design, engineer, install, own, operate and maintain the necessary equipment additions within the existing substations (Gates and/or Round Mountain). The substation terminations and line drops into the PTO owned substations will be owned, operated and controlled by the PTO. These facilities are not included in the scope of the competitive solicitation projects.	Grid Assets
11	What liabilities does the project sponsor carry if the projects are not completed on schedule?	The liabilities for reliability projects are defined in the Section 24.6 of the CAISO tariff and APSA. Specifically for delay in project, the APSA addresses the steps to be taken in Article 5.7 and 5.8. The projects are reliability projects and must be completed on time to ensure that the CAISO does not violate the NERC reliability standards.	Contracts
12	Will bidders need to commit to an exhaustive list of certain FERC transmission incentives in the bid submitted to CAISO, and commit to foregoing additional FERC transmission incentives, as part of the APSA?	The competitive solicitation process requires applicants to provide any special incentives that the applicant would agree to. Otherwise the CAISO assumes that the applicant will avail themselves of any FERC incentives available to the project. Once selected to construct the project, the Approved Sponsor will execute the APSA which will include the cost provisions from their proposal including any agreement to forego FERC transmission incentives.	Contracts

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13	How will the CAISO evaluate the schedules submitted by each bidder for feasibility?	The ISO will utilize external consultants and internal staff to evaluate all portions of submitted applications. Specific evaluation criteria and selection factors are specified in section 24.5 of the CAISO tariff.	Grid Assets
14	If selected, will the project sponsor be required to enter into an interconnection agreement with the local PTO and/or the CAISO? If so what type of interconnection agreement (LGIA, Load Interconnection, etc.)?	The project sponsor will be required to execute a transmission interconnection agreement with the Interconnecting Transmission Owner(s). CAISO is not a party to those agreements.	Contracts
15	Will bidders be required to complete potential sub-synchronous resonance study for each site as a prerequisite to development of protection requirements/project scope?	Subsynchronous Resonance (SSR) studies are required to be completed for both sites and any identified mitigation shall be implemented as part of this project.	Planning
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