



2021
Contract Management “COMA”
Enhancements Initiative

Issue Paper / Straw Proposal

August 10, 2021

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1. Introduction

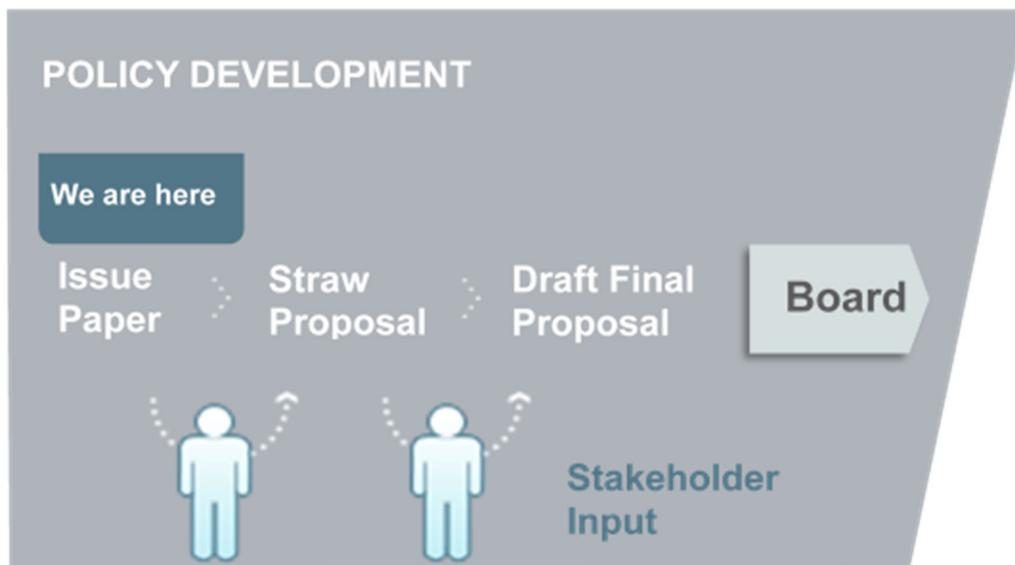
Previous iterations of the California Independent System Operator’s (CAISO) Interconnection Process Enhancement (IPE) initiative focused on the CAISO’s interconnection and deliverability allocation procedures. This 2021 Contract Management (COMA) enhancement initiative will address a subset of interconnection procedures, namely, contract and project implementation concepts. This issue paper and straw proposal reviews topics currently being considered by CAISO to be included in this stakeholder initiative. The topics fall into five broad categories: CAISO as an affected system, retirements & repowers, interconnection requests and agreements, modifications, and market quality. The CAISO also plans to initiate an IPE initiative later this year to address enhancements to the generator interconnection and deliverability allocation process and procedures.

2. Stakeholder Process

The CAISO is at the “Issue Paper/Straw Proposal” stage in the 2021 COMA stakeholder process. Figure 1 below shows the current status within the overall 2021 COMA stakeholder process.

The purpose of the paper is to provide the proposed scope of the enhancements that are under consideration and seek stakeholder suggestions for contract-related or project implementation topics to be included in this initiative. The issue paper also details each of the proposed enhancements and the relevant issues under consideration. In a few instances, for ease of understanding, specific proposals are included. The CAISO seeks additional input through stakeholder feedback on these items.

Figure 1: Stakeholder Process for 2021 COMA Stakeholder Initiative



The following schedule outlines the proposed timeline for this 2021 COMA initiative:

2021 Contract Management (COMA) enhancements initiative	
Date	Milestone
Issue Paper/Straw Proposal	
August 10, 2021	Publish Issue Paper/Straw Proposal
August 17, 2021	Stakeholder Meeting on Issue Paper
August 31, 2021	Comments Due on Issue Paper/Straw Proposal
Revised Straw Proposal-Target October	
Week of Sept 27, 2021	Publish Revised Straw Proposal
Week of Oct 4, 2021	Stakeholder Meeting on Revised Straw Proposal
Week of Oct 18, 2021	Comments due on Revised Straw Proposal
Draft Final Proposal- Target November	
Week of Nov 15, 2021	Publish Draft Final Proposal
Week of Nov 29, 2021	Stakeholder Meeting on Draft Final Proposal
Week of Dec 13, 2021	Comments Due on Draft Final Proposal
Board of Governors presentation and Draft BRS (if required) and Tariff Language	
February 2022 BOG	Present proposal to CAISO Board
February 2022	FERC Filing
April 2022	FERC Order
2022 (2023 as necessary)	Policy Implementation

Note: The schedule may be adjusted if a step in the process is no longer necessary.

3. Scope

Category	Topic
Affected Systems	Development of CAISO as an Affected System Study Agreement
Retirements & Repowers	Retention of Interconnection Service - Similar to deliverability retention, the units need to commence construction or be in the queue within 3 years of retiring to retain the interconnection service in addition to its deliverability.
	Repower - Removing 10 business days to complete repower study plan.
	Repower - Expand Section 25 to include specific repower language
Modifications	Clarification on allowing a project to extend COD if they had received TPD allocation based on <i>proceeding without a PPA</i> but then receive a PPA and want to align their COD with that PPA.
	Allow projects to convert to Storage.
	Appendix U, Section 4.4.4 - MMA rules are different than Appendix DD, delete this section and refer to Appendix DD.
	Appendix U, Section 6.4 - Since System Impact Studies and Facility Studies have been replaced with Phase I and Phase II studies, align the timing for the re-study to be consistent with the Appendix DD study process. Change 45 calendar days to 60 calendar days.
Market Quality	Revise droop and dead-band requirements in generator interconnection agreements.
Interconnection Request & Study Agreement	Revise Generator Interconnection Study Process Agreement (Appendix 3) effective date.

4. Affected Systems

4.1 CAISO as an Affected System process update

The CAISO is more and more becoming an affected system impacted by generator interconnections in other balancing authority areas, and therefore needs to develop a defined process for conducting affected system studies and mitigating impacts on the CAISO grid. For example, the CAISO will need a process to collect a study deposit and study agreement to even begin affected system work. Due to need, the CAISO developed a draft agreement and study deposit. The CAISO proposes to make the CAISO as an Affected System Study Agreement a *pro forma* agreement and add an additional subsection to Appendix DD, Section 14 addressing the agreement, notification requirements, and deposit.

Unlike for CAISO interconnection customers, the CAISO proposes that Participating TOs will not reimburse external interconnection customers for network upgrades. This practice is consistent with neighboring utilities' practices for CAISO interconnection customers.

The draft agreement is attached as Appendix A. The proposed language for Section 14.5 of Appendix DD is as follows:

14.5 CAISO as an Affected System

An interconnection customer in Balancing Authority Areas that may affect the reliability of the CAISO Controlled Grid will execute an Affected System Study Agreement to allow the CAISO and affected Participating TO(s) to study the impact of the interconnection. The agreement specifies the terms governing the study and payments to be made by the interconnection customer to the CAISO.

14.5.1 Cost Allocation and Interconnection Financial Security

Affected system studies will list separate cost estimates for facilities and Network Upgrades required in the CAISO Balancing Authority Area. These separate sums may be adjusted over time based on actual costs incurred. The interconnection customer will post financial security with the impacted Participating TO(s) for facilities and Network Upgrades.

The interconnection customer will not be reimbursed for Network Upgrades required in the CAISO Balancing Authority Area for projects connecting to other Balancing Authority Areas that are impacting the CAISO.

5. Retirements and Repowers

There are three (3) topics included that are associated with retirements and repowers in this initiative:

1. Retention of Interconnection Service following a retirement announcement;
2. Clarifications of timing requirements for repowers
3. Updates to specific tariff language for repowers

5.1 Retention of Interconnection Service Following Retirement Approval

Section 4.1.3 of the Participating Generator Agreement and Net Scheduled Participating Generator Agreement (individually or collectively, a “PGA”) requires a Participating Generator to notify the CAISO of changes to the technical information in the agreement(s) that need to be documented in Schedule 1 of the PGA. A retirement is included in that requirement. The CAISO developed Section 12 of the BPM for Generator Management to address the various scenarios and requirements for a Participating Generator.

Upon approval of a generating unit’s retirement, consistent with Section 6.1.3.4 of the BPM for Reliability Requirements, a project retains its deliverability status and allocation for exactly three years from the retirement date as follows:

To the extent a Generating Unit becomes incapable of operating at this level for any consecutive three-year period, the Generating Unit will lose its deliverability priority in an amount reflecting the loss of generating capability. The holder of the deliverability priority may retain its rights after the expiration of the three-year period if it can demonstrate that it is actively engaged in the construction of replacement generation to be connected at the bus associated with the deliverability priority. Under such circumstances, the Generating Unit developer and ISO will identify specific milestones to preserve the deliverability priority. The holder of the deliverability priority will retain only such rights that are commensurate with the size in megawatts of the replacement generation, not to exceed the amount associated with the prior Generating Unit’s deliverability priority.

To retain deliverability, the generating unit(s) must be in the interconnection study process prior to the end of the three-year period, or, if the repowering scenario was chosen, the generating unit(s) must have received an approval to repower and be actively engaged in construction of the replacement generation to retain the deliverability prior to the end of the three-year period. Deliverability is maintained for the appropriate length of time by maintaining an active PGA with the CAISO. Deliverability cannot be retained indefinitely.

Similarly, interconnection service cannot be retained indefinitely.

CAISO Tariff Appendix A, Definitions, defines Interconnection Service as:

The service provided by the Participating TO and CAISO associated with interconnecting the Interconnection Customer’s Generating Facility to the CAISO Controlled Grid and enabling it to receive electric Energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Large Generator Interconnection Agreement, the Participating TO’s TO Tariff, and the CAISO Tariff.

For resources that have an active deliverability retention, their interconnection services are also maintained because the PGA and Generator Interconnection Agreement, for those generating units connected to the CAISO, are still active. The balancing area needs sufficient generation to meet the growing demand and renewable portfolio goals in California and cannot afford to have generator interconnections go unused if a project is not actively being developed. The CAISO proposes to

clarify that Interconnection Service to the CAISO controlled grid is maintained concurrent with deliverability retention.

Projects with Energy Only (EO) deliverability status are not allocated deliverability and therefore do not have a deliverability allocation to retain following retirement. As such, in order to retain Interconnection Service, an EO resource would follow the existing retirement and 3-year retention rules and procedures identified in the tariff and BPMs cited above.

The CAISO believes these practices are prudent because they ensure network upgrades and interconnection facilities remain used and useful, which benefits the ratepayers that ultimately paid for those upgrades. The three-year retention period also incentivizes developers to utilize existing sites on a timely basis.

5.2 Clarification of study plan timing requirements for Repowers

Section 25.1.2.3 of the CAISO tariff provides that the CAISO will issue a draft study plan to the generating unit owner within 10 business days of receipt of the affidavit requesting repowering. The process of reviewing and validating the interconnection requests and technical data often times takes longer than 10 days because this information - along with the current outages and topology of the system - need to be included in the draft study plan. As such, the CAISO proposes to remove the 10 business day requirement from the tariff. Going forward, the CAISO will coordinate with the Participating TO to validate the interconnection request and subsequently draft and tender a study plan as soon as practical following the validation of the repower interconnection request.

5.3 Clarify Repower language in Section 25

Section 25 of the CAISO tariff applies to generating units seeking to interconnect to the CAISO Controlled Grid, modifications to existing generating units, generating units that previously operated and are seeking to repower their units and retain deliverability, and a generating unit currently identified as a qualified facility and converting to a CAISO participating generator.

Upon further review and evaluation, to remove ambiguity, the CAISO proposes to clarify and add specificity to the repowering section by modifying the language that refers specifically to the repowering process. Except for the other changes discussed in this document, the CAISO proposed to clarify the term “repower.” Specifically, the CAISO proposes to call out repowering as an express study process where the electrical characteristics remain substantially unchanged and the interconnection capacity remain the same. The proposed tariff changes would be as follows:

Add Section 25.1 (f):

- (f) each existing Generating Unit connected to the CAISO Controlled Grid that proposes to repower its Generating Unit, is subject to Section 25.1.2.

Revise Section 25.1.2 Affidavit Requirements:

If the owner of a Generating Unit described in Section 25.1(d), ~~or (e)~~, **or (f)**, or its

designee, represents that the total generating capability and electrical characteristics of the Generating Unit will be substantially unchanged, then that entity must submit an affidavit to the CAISO and the applicable Participating TO representing that the total generating capability and electrical characteristics of the Generating Unit have remained substantially unchanged. However, if there is any change to the total generating capability and electrical characteristics of the Generating Unit, the affidavit shall include supporting information describing any such changes or proposed repowering configuration, including an Interconnection Request form, and a \$50,000 deposit for the study. The CAISO, in coordination with the applicable Participating TO, will evaluate whether the total generating capability or electrical characteristics of the Generating Unit have substantially changed or will substantially change. The CAISO may engage the services of the applicable Participating TO in conducting such verification activities. Costs incurred by the CAISO and Participating TO (if any) shall be borne by the party making the request under Section 25.1.2, and such costs shall be included in a CAISO invoice for verification activities.

25.1.2.1 If the CAISO and the applicable Participating TO confirm that the electrical characteristics are substantially unchanged, then that request will not be placed into the interconnection queue. However, the owner of the Generating Unit, or its designee, will be required to execute a CAISO Generator Interconnection Agreement, as applicable. All Generation Units described in Section 25.1(d), and (e) and (f) will be required to comply with the CAISO's new resource implementation process to ensure compliance with applicable tariff provisions and Applicable Reliability Criteria, as specified in the Business Practice Manuals.

6. Modifications

6.1 TP Deliverability allocation Group 3 usage of COD extensions and alignment with PPA

Projects may seek a Transmission Plan Deliverability ("TPD") allocation annually by submitting a seeking TPD affidavit as part of one of seven groups defined in Appendix DD. Group three (3) allows projects to seek a TPD allocation by claiming they are proceeding without a power purchase agreement ("PPA") and will proceed, with certain criteria and limitations, to finance and construct the project in an efficient and timely manner. One criterion or limitation of projects that receive an allocation in group three is that they are prohibited from extending their commercial operation date ("COD") for any reason.

In the interim of being studied and developing a project, the interconnection customer may seek and execute a PPA with a prospective buyer. As such, the purchaser's timeline requirements may not align with the projects currently-proposed COD and development timeline. Currently, the proceeding without a PPA rules do not expressly exempt a COD extension to allow the project's COD to align with the PPA.

The CAISO is proposing to clarify the exception to the "no COD extension" rule for group three

projects by allowing a COD extension of the project to align with the COD identified in an executed and regulatory approved PPA. The CAISO is proposing the following change to Section 8.9.2.2 of Appendix DD:

If an Interconnection Customer receives TP Deliverability on the basis that it is proceeding without a power purchase agreement, it must accept the TP Deliverability allocation and forego parking that capacity, or withdraw. If an Interconnection Customer receives TP Deliverability on the basis that it is proceeding without a power purchase agreement, it may not request suspension under its GIA, delay providing its notice to proceed as specified in its GIA, or modify its Commercial Operation Date beyond the earlier of (a) the date established in its Interconnection Request when it requests TP Deliverability or (b) seven (7) years from the date the CAISO received its Interconnection Request. However, in the instance where the Interconnection Customer has executed a power purchase agreement, the Interconnection Customer may request to align the construction timeline and Commercial Operation Date with the amount of deliverable MW capacity procured by the power purchase agreement. This change in milestones cannot impact the timing of shared Network Upgrades. Extensions due to Participating TO construction delays will extend these deadlines equally. Interconnection Customers that fail to proceed toward their Commercial Operation Date under these requirements and as specified in their GIA will be converted to Energy Only. *(Continue with existing text of the paragraph.)*

6.2 Whole project conversions to storage

Although converting generating units to storage generally does not substantially affect the electrical characteristics, currently, generating units are prohibited from completely converting from one technology to a storage generating resource. Over time, the CAISO has received a number of request to convert projects to full storage and upon further evaluation, the CAISO is proposing to allow projects to request a 100% conversion to storage via a Material Modification Assessment or a repower request provided the electrical characteristics of the plant, other projects, or the transmission system will remain substantially unchanged. The MMA or repower study will evaluate such impacts. This will require a change to Section 6.7.2.5 of Appendix DD as follows:

The CAISO will not consider the addition of or change to energy storage; changes to the type, number, or manufacturer of inverters; or insubstantial changes to Generating Facility as fuel-type modifications. Interconnection Customers may request such modifications pursuant to this GIDAP.

6.3 Appendix U, Modifications

Section 4.4 of Appendix U provides the rules for serial projects to request modifications prior to achieving their Commercial Operations Date. With the relatively small number of serial projects in the queue and the existing modification procedures for the GIP and GIDAP already aligned, the CAISO proposes to align the serial process to be consistent. Section 4.4.4 is inconsistent with Section 4.4.6 of Appendix U and the CAISO proposes to delete Section 4.4.4 in its entirety.

Specifically, the CAISO proposes to delete the following:

~~4.4.4 Upon receipt of the Interconnection Customer's request for modification permitted under this LGIP Section 4.4, the CAISO shall commence and conduct or have conducted any necessary additional studies as soon as practicable, but in no event shall such studies commence later than thirty (30) calendar days after receiving notice of the Interconnection Customer's request. Any additional studies resulting from such modification shall be done at the Interconnection Customer's cost.~~

By removing this inconsistency, the language in Section 4.4 combined with Section 4.4.6 would result in the same modification process for all Material Modification Assessments.

6.4 Appendix U, Re-study timeline alignment with other studies

Appendix U was predicated on the previous study process: an Interconnection Feasibility Study, an Interconnection System Impact Study and an Interconnection Facilities Study. Today all of these studies are combined into the Phase I and Phase II studies. Sections 6.4, 7.6, and 8.5 of Appendix U require the CAISO to notify the interconnection customer to request a restudy of each of the original study processes due to higher queued projects dropping out of the queue, or a modification of a higher queued project, or redesign of the Point of interconnection, or any other effective change in information which necessitates a re-study. All of these changes to the queue are performed as part of the annual reassessment study in accordance with Section 7.4 of Appendix DD and the reassessment study is paid in accordance with Section 3.5.1.2 of Appendix DD, not by the Appendix U interconnection customers. The CAISO proposes to delete section 6.4 and 7.6 of Appendix U in their entirety.

Section 8.5 of Appendix U is still needed due to a FERC settlement agreement and the CAISO proposes to retain this section for that reason.

7. Market Quality Updates

7.1 Revise droop and dead-band requirements in GIA

With the integration of higher levels of Variable Energy Resources (“VERs”) and the increase amount of rooftop photovoltaics (“PV”), the CAISO is experiencing increased levels of variability on the system. Integrating solar facilities creates much more of an operational challenge than integrating wind resources. Integrating wind resources results in a reduction of variability primarily due to the fact that geographical diversity of wind plants on the grid minimizes variability. The opposite effect occurs with the installation of solar resources. This phenomenon is not unique to the CAISO. Technical studies¹ have shown as wind installation increases within a balancing authority area, flexible needs decrease while the opposite happens with the increase of solar

¹ Carnegie Mellon Study on geographic smoothing of solar photovoltaic electric power production in the western USA published November, 2018.

integration.

In addition to grid connected VERs, at the end of 2020, the CAISO's footprint had over 12,000 MW of rooftop PV, which is expected to increase at a rate of about 100 MW per month through 2024. Currently on weekends, more than 25% of the CAISO's load is served by rooftop PV for which the CAISO has no forecasting or real-time visibility yet the CAISO still has a NERC requirement to balance supply against demand every 4-seconds and calculate its control performance on a 1-minute basis.

As a result of the changing resource fleet, the CAISO experiences operational challenges in balancing the system between sunrise and sunset. System operators are experiencing challenges controlling high or low area control error ("ACE") for extended periods of time. To help mitigate this problem, the CAISO increased both its up and down regulation procurement requirements in 2019 to try and better control the variability on the system. In 2020, the CAISO continued to experience variability of $\pm 2,000$ MW in certain hours and expects this variability to continue increasing with higher levels of VERs interconnecting to the grid.

To assist in mitigating this variability, the CAISO proposes to revise Appendix H of the LGIA and Attachment 7 of the SGIA for asynchronous generators to change governor-like setting at the plant level to 4%, from 5%, and implement frequency dead-band change of ± 0.0167 Hz instead of ± 0.036 Hz. The CAISO proposes to make the changes effective as of the date approved by FERC for new interconnection agreements, and any amendments that would have an impact on Appendix H thereafter (e.g. modifications to inverters).

This change would result in faster response to frequency deviations in real time, which would help in addressing the variability concerns and reduce the need to curtail VERs.

8. General administrative/language clarification updates

8.1 Generator Interconnection Study Process Agreement (Appendix 3) Effective Date

Currently, the effective date of the generator interconnection study process agreement (study agreement) is the date in which it is submitted to the CAISO. Pursuant to Section 3.5.1 of GIDAP, the CAISO requires specific documentation and information to be provided in order for the interconnection request package to be deemed 'complete', including the interconnection request and study agreement. In the event the interconnection request package is deemed incomplete by April 15th, there is no opportunity to cure or otherwise be included in that year's queue cluster and, therefore, the study agreement does not become effective. The CAISO proposes to update the effective date of the study agreement to be the date that the interconnection request package is deemed complete and moves to the validation process following section 3.5.1 of GIDAP. The CAISO proposes the following language change in the Generator Interconnection Study Process Agreement for Queue Clusters, Article 12.0 as follows:

This Agreement shall become effective upon the date that the interconnection request package is deemed complete pursuant to Section 3.5.1 of GIDAP. ~~If the CAISO does not~~

~~receive the fully executed Agreement and deposit or other Interconnection Financial Security pursuant to Section 3.5.1 of the GIDAP, then the Interconnection Request will be deemed withdrawn upon the Interconnection Customer's receipt of written notice by the CAISO pursuant to Section 3.8 of the GIDAP.~~

9. Next Steps

The CAISO will hold a stakeholder meeting at the CAISO on August 17, 2021 to review the issue paper. Stakeholder comments will be due on August 31, 2021. The CAISO encourages all stakeholders to submit comments on this issue paper and straw proposal, including any additional topics that they believe should be included in the 2021 COMA initiative. Once the CAISO has reviewed all of the material, the CAISO will publish a detailed schedule for this initiative. Based on the scope of this initiative, the CAISO expects to proceed expeditiously.

Appendix A

CAISO AS AN AFFECTED SYSTEM STUDY AGREEMENT (CASSA)

THIS AGREEMENT is dated _____ day of _____, _____. And is entered into, by and between:

(1) **[Full Legal Name]**, having its registered and principal place of business located at **[Address]** (the "Generator Project Owner");

and

(2) **California Independent System Operator Corporation ("CAISO")**, a California nonprofit public benefit corporation having a principal executive office located at such place in the State of California as the CAISO Governing Board may from time to time designate.

The Generation Project Owner and the CAISO each may be referred to as the "Parties".

WHEREAS:

- A. The Generation Project Owner is proposing to develop a generation project that may electrically impact the CAISO as an Affected System.
- B. The Generation Project Owner with the Affected System Study request ("Request") submitted to the CAISO by the Generation Project Owner.
- C. The Request is consistent with the current study request submitted by the Generation Project Owner with the interconnecting system transmission provider, "Interconnecting System", and
- D. The Generation Project Owner has requested the CAISO to conduct or cause to be performed studies to assess the system impact of the generation project or capacity addition to the CAISO Controlled Grid's electrical system, and to specify and estimate the cost of the equipment, engineering, procurement, and construction work needed on the CAISO Controlled Grid in accordance with Good Utility Practice to mitigate any adverse system impacts ("Affected System Study").

NOW, THEREFORE, in consideration of and subject to the mutual covenants set forth herein **THE PARTIES AGREE** as follows:

ARTICLE I DEFINITIONS AND INTERPRETATION

1.1 Master Definitions Supplement. All capitalized terms and expressions used in this Agreement shall have the same meaning as those contained in the Master Definitions Supplement to the CAISO Tariff.

1.2 Rules of Interpretation. The following rules of interpretation and conventions shall apply to this Agreement:

- (a) if there is any inconsistency between this Agreement and the CAISO Tariff, the

- CAISO Tariff will prevail to the extent of the inconsistency;
- (b) the singular shall include the plural and vice versa;
 - (c) the masculine shall include the feminine and neutral and vice versa;
 - (d) “includes” or “including” shall mean “including without limitation”;
 - (e) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
 - (f) a reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented or restated through the date as of which such reference is made;
 - (g) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
 - (h) unless the context otherwise requires, any reference to a “person” includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
 - (i) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
 - (j) any reference to a day, week, month or year is to a calendar day, week, month or year; and
 - (k) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement.

ARTICLE II

ACKNOWLEDGEMENT OF GENERATION PROJECT OWNER AND CAISO

- 2.1 Study Plan.** The Generation Project Owner elects and the CAISO shall conduct or cause to be performed Affected System Study similar to the CAISO Interconnection System Impact and Facilities Study. The details, including but not limited to, scope, assumptions, and duration for the Affected System Study will be outlined in the attached Affected System Study Plan. The Request will be subject to the direction and oversight of the CAISO in coordination with the Participating TO as described in the CAISO Tariff. The CAISO and Participating TO Affected System Study report shall provide the information specified in the Affected System Study Plan.
- 2.2. Technical Requirements.** The Affected System study will be based upon the technical information provided by the Generation Project Owner in the Request, as may be modified as a result of the scoping meeting. If the Generation Project Owner further modifies the Request, its designated point of interconnection, or the technical information provided therein, the Affected System Study results may be invalid and restudies, at the Generation Project Owner’s expense, may be required.
- 2.3 Meetings and Costs.** The Generation Project Owner shall provide a study deposit in the amount of \$75,000, which is equal to a non-binding good faith estimate for the cost of the studies. If at any time the CAISO determines the cost will exceed the \$75,000 deposit, the CAISO will notify the Generation Project Owner. Following the issuance of the Affected System Study report, the CAISO shall charge the Generation Project Owner and the Generation Project Owner shall pay the actual costs of the Affected System Study as described in Section 3.5.1 of Appendix DD of the CAISO Tariff (“GIDAP”).

As described section 3.5.1 of the GIDAP the CAISO shall deposit all study deposits in an interest bearing account at a bank or financial institution designated by the CAISO. The study deposit shall be applied to pay for prudent costs incurred by the CAISO, the Participating TO, or third parties at the direction of the CAISO or the Participating TO, as applicable, to perform and administer the Affected System Study and to meet and otherwise communicate with Generation Project Owner with respect to its Request.

Any difference between the deposits made toward the Affected System Study and associated administrative costs, and the actual costs of the Affected System Study and associated administrative costs shall be paid by or refunded to the Generation Project Owner, including applicable interest.

- 2.4 Notice of Withdrawal.** Generation Project Owner may withdraw its Request at any time by written notice to the CAISO. Upon receipt of such notice the CAISO will cease all study work.
- 2.5 Impact of System Changes.** Substantial portions of technical data and assumptions used to perform the Affected System Study, such as system conditions, existing and planned generation, and unit modeling, may change after the CAISO provides the Affected System Study results to the Generation Project Owner. The Affected System Study results will reflect available data at the time the CAISO provides the Affected System Study report to the Generation Project Owner. The CAISO or the Participating TO shall not be responsible for any additional costs, including, without limitation, costs of new or additional facilities, system upgrades, or schedule changes, that may be incurred by the Generation Project Owner as a result of changes in such data and assumptions.
- 2.6 Network Upgrades Agreement.** If the CAISO determines that network upgrades are required to mitigate the Generation Project Owner's interconnection, the Parties will negotiate and enter into a separate agreement that sets forth the provisions for the construction timeline and estimated costs provisions for those network upgrades. A modified version of Appendix EE to the CAISO Tariff ("LGIA") will serve as the template for this separate agreement.

ARTICLE III TERM AND TERMINATION

- 3.1 Effective Date.** This Agreement shall be effective as of the later of the date it is executed by the Parties or the date accepted for filing and made effective by FERC, if such FERC filing is required, and shall remain in full force and effect until terminated pursuant to Section 3.2 of this Agreement.
- 3.2 Termination**
- 3.2.1 Termination by CAISO.** The CAISO may terminate this Agreement by giving written notice of termination in the event that the Generation Project Owner commits any material default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given, to the Generation Project Owner, written notice of the default, unless excused by reason of Uncontrollable Forces in accordance with Article 7 of this Agreement. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement was filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the

CAISO with FERC will be considered timely if: (1) the filing of the notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within sixty (60) days after issuance of the notice of default; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if filed with FERC, or thirty (30) days after the date of the CAISO's notice of default, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

- 3.2.2 Termination by Generation Project Owner.** In the event that the Generation Project Owner no longer wishes to have the CAISO and Participating TO continue the Affected System Study, it may terminate this Agreement, on giving the CAISO not less than thirty (30) days written notice. With respect to any notice of termination given pursuant to this Section, the CAISO must file a timely notice of termination with FERC, if this Agreement has been filed with FERC, or must otherwise comply with the requirements of FERC Order No. 2001 and related FERC orders. The filing of the notice of termination by the CAISO with FERC will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and the CAISO files the notice of termination within thirty (30) days of receipt of such request; or (2) the CAISO files the notice of termination in accordance with the requirements of FERC Order No. 2001. This Agreement shall terminate upon acceptance by FERC of such a notice of termination, if such notice is required to be filed with FERC, or upon thirty (30) days after the CAISO's receipt of the Generation Project Owner's notice of termination, if terminated in accordance with the requirements of FERC Order No. 2001 and related FERC orders.

ARTICLE IV DISPUTE RESOLUTION

- 4.1 Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the CAISO ADR Procedures set forth in Section 13 of the CAISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the CAISO Tariff to Market Participants shall be read as a reference to the Participating Generator and references to the CAISO Tariff shall be read as references to this Agreement.

**ARTICLE V
REPRESENTATIONS AND WARRANTIES**

- 5.1 Representation and Warranties.** Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 5.2 No Partnership.** This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, another Party.

**ARTICLE VI
LIABILITY**

- 6.1 Liability.** The provisions of Section 14 of the CAISO Tariff will apply to liability arising under this Agreement, except that all references in Section 14 of the CAISO Tariff to Market Participants shall be read as references to the Generation Project Owner and references to the CAISO Tariff shall be read as references to this Agreement.

**ARTICLE VII
UNCONTROLLABLE FORCES**

- 7.1 Uncontrollable Forces Tariff Provisions.** Section 14.1 of the CAISO Tariff shall be incorporated by reference into this Agreement except that all references in Section 14.1 of the CAISO Tariff to Market Participants shall be read as a reference to the Generation Project Owner and references to the CAISO Tariff shall be read as references to this Agreement.

**ARTICLE VIII
MISCELLANEOUS**

- 8.1 Assignments.** Either Party may assign or transfer any or all of its rights and/or obligations under this Agreement with the other Party's prior written consent in accordance with Section 22.2 of the CAISO Tariff. Such consent shall not be unreasonably withheld. Any such transfer or assignment shall be conditioned upon the successor in interest accepting the rights and/or obligations under this Agreement as if said successor in interest was an original Party to this Agreement.
- 8.2 Notices.** Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in accordance with Section 22.4 of the CAISO Tariff, provided that all references in Section 22.4 of the CAISO Tariff to Market Participants shall be read as a reference to the Generation Project Owner and references to the CAISO Tariff shall be read as references to this Agreement, and unless otherwise stated or agreed shall be made to the representative of the other Party indicated in Schedule 3. A Party must update the information in Schedule 3 of this Agreement as information changes. Such changes shall not constitute an amendment to this Agreement.

- 8.3 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 8.4 Governing Law and Forum.** This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of law provisions. The Parties irrevocably consent that any legal action or proceeding arising under or relating to this Agreement to which the CAISO ADR Procedures do not apply, shall be brought in any of the following forums, as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 8.5 Consistency with Federal Laws and Regulations.** This Agreement shall incorporate by reference Section 22.9 of the CAISO Tariff as if the references to the CAISO Tariff were referring to this Agreement.
- 8.6 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to such subject matter.
- 8.7 Severability.** If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.
- 8.8 Records.** The CAISO shall maintain records and accounts of all costs incurred in performing the Affected System Study in sufficient detail to allow verification of all costs incurred, including associated overheads. The Generation Project Owner shall have the right, upon reasonable notice, within a reasonable time at the CAISO's offices and at its own expense, to audit the CAISO's records as necessary and as appropriate in order to verify costs incurred by the CAISO. Any audit requested by the Generation Project Owner shall be completed, and written notice of any audit dispute provided to the CAISO representative, within one hundred eighty (180) calendar days following receipt by the Generation Project Owner of the CAISO's notification of the final costs of the Affected System Study.
- 8.9 Amendments.** This Agreement may be amended from time to time by the mutual agreement of the Parties in writing. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. Nothing contained herein shall be construed as affecting in any way the right of the CAISO

to unilaterally make application to FERC for a change in the rates, terms and conditions of this Agreement under Section 205 of the FPA and pursuant to FERC’s rules and regulations promulgated thereunder, and the Participating Generator shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to Section 206 or any other applicable provision of the FPA and FERC’s rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the FPA and FERC’s rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

8.10 Counterparts. This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

California Independent System Operator Corporation

By: _____
Name: _____
Title: _____
Date: _____

[Name of Generation Project Owner]

By: _____
Name: _____
Title: _____
Date: _____