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January 29, 2009

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER09-____-000
Amendment to Credit Policy Provisions of the CAISO Tariff**

Dear Secretary Bose:

The California Independent System Operator Corporation ("CAISO") submits this filing to modify the credit policy provisions of the CAISO Tariff implementing the Market Redesign and Technology Upgrade ("MRTU") project.¹ The CAISO respectfully requests that the tariff changes contained in this filing be made become effective as of March 31, 2009, which is the date that the CAISO anticipates that MRTU will be implemented.

Two extra copies of this filing are also enclosed. Please stamp these copies with the date and time filed and return them to the messenger.

I. Background

From the time the CAISO began operations in 1998, it has employed provisions in its tariff that require Market Participants that submit schedules or

¹ The CAISO submits this filing pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d, and Section 35.13 of the Commission's regulations, 18 C.F.R. § 35.13. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO Tariff, and except where otherwise noted herein, references to section numbers are references to sections of the tariff.

transact in the CAISO's markets to satisfy creditworthiness requirements or else post collateral, in order to provide reasonable assurance that the Market Participants can meet their present and future financial obligations. The present versions of these credit provisions are contained in Section 12 of the tariff. Section 12 describes the calculation of Unsecured Credit Limits, the creditworthiness requirements and the requirements for posting Financial Security, the circumstances in which a Market Participant fails to satisfy those requirements, and certain steps that the CAISO can take if a Market Participant fails to satisfy the requirements. Further implementation details regarding the credit provisions in Section 12 are found in the applicable Business Practice Manuals ("BPMs") available on the CAISO Website.²

Since the California energy crisis of 2000-2001, the CAISO has periodically evaluated whether changes should be made to its credit policy, as provided in its tariff and the BPMs, in order to better ensure that Market Participants satisfy creditworthiness standards or post Financial Security sufficient to cover all of their financial obligations in the CAISO settlement process and discourage defaults in the CAISO's markets. This is an issue of concern not only to the CAISO and Market Participants but also to the Commission, as evidenced by the Commission's *Policy Statement on Electric Creditworthiness*. As the Commission stated in the *Policy Statement*:

[T]he Commission [has] explained that . . . credit downgrades have raised the level of concern regarding credit-related risks. . . . In addition, the Commission [has] stated that it believes that there are ways for ISOs/RTOs to reduce credit/default exposure and, in turn, to minimize the mutualized default risk in their markets. . . . ISOs/RTOs are typically non-profit entities that administer the market on behalf of market participants. In such markets, credit is collectively extended by market participants to each individual market participant. As a result, if one market participant defaults, it falls upon the remaining participants to make up the shortfall (i.e., the default risk is mutualized).³

Pursuant to the CAISO's evaluations over the past few years, the CAISO has made a number of changes to its credit policy.⁴

² The Commission, in its *Policy Statement on Electric Creditworthiness*, 109 FERC ¶ 61,186 (2004) ("*Policy Statement*"), stated that it expects Independent System Operators ("ISOs") and Regional Transmission Organizations ("RTOs") to post their credit policies and practices in their tariffs or on their websites. *Id.* at PP 8-12.

³ *Policy Statement* at PP 4-5.

⁴ See the CAISO's filings to modify its tariff in Docket No. ER06-700 and in Docket Nos. ER07-613 and ER07-1077, as accepted by the Commission in those proceedings.

The CAISO's most recent evaluation of its credit policy resulted in the proposed tariff changes contained in this filing and discussed in detail below. The first step in the process of developing these tariff changes was the posting on the CAISO Website, on September 8, 2008, of a white paper containing proposed changes to the credit policy. The CAISO requested written stakeholder comments and held a meeting with stakeholders on September 22, 2008, to discuss the proposed credit policy changes. On October 20, 2008, the CAISO posted on its Website a straw proposal for credit policy enhancements and requested written stakeholder comments, and on October 27, 2008, the CAISO held a conference call with stakeholders to discuss the straw proposal. On November 10, 2008, the CAISO posted on its Website a final draft proposal for credit policy enhancements to the BPM for Credit Management and requested written stakeholder comments, which the CAISO discussed with stakeholders on a conference call held on November 17, 2008. The CAISO posted its final white paper on the credit policy enhancements on December 1, 2008.

The CAISO's Chief Financial Officer & Treasurer provided an overview of the proposed credit policy changes in a memorandum to the CAISO Governing Board ("Board") dated December 8, 2008 ("Memorandum"). On December 17, 2008, the Board authorized CAISO management to prepare and submit this tariff amendment. The CAISO posted draft tariff revisions for stakeholder review on January 22, 2009, requested written stakeholder comments, and held a conference call to discuss the tariff revisions on January 27, 2009. By the CAISO's count, there were over 45 stakeholder participants in each meeting or conference call, and the CAISO received a total of 30 sets of written comments by 18 distinct participants during the stakeholder process.⁵

II. Proposed Tariff Changes

A. Lowering of the Maximum Unsecured Credit Limit

As currently set forth in Sections 12.1.1 and 12.1.1.1, the maximum Unsecured Credit Limit for any Market Participant is \$250 million. The CAISO explained in a previous proceeding that it might consider lowering that cap in a future tariff amendment to reduce the credit risk of participating in the CAISO Markets.⁶ The CAISO now proposes to modify Sections 12.1.1 and 12.1.1.1 to lower the maximum Unsecured Credit Limit for any Market Participant to \$150

⁵ The materials posted by the CAISO as part of the stakeholder process, and the stakeholders' written comments, are available on the CAISO Website at <http://www.caiso.com/docs/2003/04/21/2003042117001924814.html>. The Memorandum and the Board's authorization to submit this tariff amendment are available on the CAISO Website at <http://www.caiso.com/2098/20988a9a1ea70.html>.

⁶ Transmittal Letter for March 2006 Credit Policy Amendments, Docket No. ER06-700-000 (Mar. 7, 2006), at 6-7; Transmittal Letter for Compliance Filing and Status Report, Docket No. ER06-700-003 (July 11, 2006), at 3.

million. As explained in the Memorandum, the CAISO is making this proposal after considering the maximum unsecured credit limits established by its peer ISOs and RTOs, the historical Estimated Aggregate Liabilities of Market Participants in comparison to their maximum Unsecured Credit Limits in recent years, and how Estimated Aggregate Liabilities may change as a result of the implementation of MRTU. Moreover, the proposed reduction of the maximum Unsecured Credit Limit to \$150 million represents an appropriate step toward a more conservative credit policy in response to recent Market Participant defaults experienced in other ISO markets during 2008, and represents a compromise between the different views of stakeholders regarding what the maximum Unsecured Credit Limit should be.⁷

B. Modification of the Process for Determining Unsecured Credit Limits

Section 12.1.1.1.2 currently contains an eight-step process that the CAISO uses to determine Unsecured Credit Limits for Market Participants. The CAISO proposes several modifications to Section 12.1.1.1.2 to make this a simpler and more financially conservative six-step process. First, the CAISO proposes to no longer determine Unsecured Credit Limits using default probabilities calculated by Moody's KMV, because the CAISO has found those default probabilities to be more volatile than the CAISO believes is appropriate for that purpose. Instead, the CAISO will use the "Moody's KMV Equivalent Rating," which the CAISO defines in Appendix A to the CAISO Tariff as the rating derived by Moody's KMV from Moody's KMV's Estimated Default Frequency that effectively translates that estimated default frequency into a comparable credit agency rating. The CAISO anticipates that using the Moody's KMV Equivalent Rating will yield less volatile results. Also, the CAISO proposes to determine Unsecured Credit Limits using the lowest credit agency issuer rating, rather than the average of such available ratings as is the case under the current version of Section 12.1.1.1.2. The purpose of this change is to employ more financially conservative criteria for determining Unsecured Credit Limits. The CAISO also proposes to describe with greater specificity in Step 4 of Section 12.1.1.1.2 how it will calculate a Market Participant's Tangible Net Worth and Net Assets, and will make adjustments for assets that are particularly volatile or may be unavailable to settle a claim related to CAISO Market obligations.

Further, the CAISO proposes to modify Section 12.1.1.1, which describes how the CAISO calculates Unsecured Credit Limits, and to modify Section 12.1.1.1.1, which describes how the CAISO determines the maximum

⁷ Memorandum at 3-4. In addition, CAISO management recommends further reducing the maximum Unsecured Credit Limit to \$50 million following the start of the CAISO's Payment Acceleration program, which the CAISO anticipates will be implemented within a few months after MRTU is implemented. *Id.* at 4. Accordingly, the CAISO expects that it will make an additional tariff amendment in the future to reduce the maximum Unsecured Credit Limit to \$50 million.

percentages of Tangible Net Worth and Net Assets used in its Unsecured Credit Limit calculations, and the definitions in Appendix A to the CAISO Tariff of the terms Net Assets and Tangible Net Worth, to be consistent with the proposed changes to Section 12.1.1.1.2 described above.

C. Enhanced Mitigation of Credit-Related Risk

The CAISO proposes three categories of tariff changes to enhance the provisions of the tariff that are used to mitigate credit-related risk. These tariff changes are the result of comparing the CAISO's credit policy against the credit policies of other ISOs and RTOs. The tariff changes include targeted and effective enforcement tools to create additional incentives for compliance with the tariff provisions in the areas of timely posting of Financial Security and payments of amounts set forth in Invoices from the CAISO.⁸

First, the CAISO proposes to make changes to Sections 12.1.3.1.1, 12.4, 12.4.1, and 12.4.2 to reduce the amount of time allowed for Market Participants to post additional Financial Security requested by the CAISO from five to three Business Days. In tandem with the shortening of this amount of time by two Business Days, the CAISO proposes a parallel change to modify Section 12.1.3.1.1 to state that Estimated Aggregate Liability represents the amount owed to the CAISO for the obligations for the number of Trading Days outstanding at a given time based on the CAISO's Payments Calendar plus five Trading Days (rather than plus seven Trading Days as is stated under the tariff currently).

Second, the CAISO proposes to add new Section 12.5.2 to provide for CAISO enforcement actions against Market Participants that fail to timely post additional Financial Security requested by the CAISO. The CAISO also proposes to add new Section 12.5.3 to provide CAISO enforcement actions against Market Participants that fail to timely pay an amount set forth in an Invoice from the CAISO. Pursuant to each of these tariff sections, the CAISO will send a warning letter to a Market Participant after the first two times during a rolling twelve-month period that the Market Participant is delinquent. After the third time during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security, the CAISO may require the Market Participant to post an additional Financial Security Amount that is as high as the highest level of the Market Participant's Estimated Aggregate Liability during the preceding twelve months, and the CAISO will hold the additional Financial Security Amount for at least twelve months and possibly longer if the Market Participant is late again in posting additional Financial Security or paying the amount set forth in an Invoice. Similarly, after the third time during a rolling twelve-month period that a Market Participant is late in paying the amount set

⁸ See Memorandum at 5.

forth in an Invoice, the CAISO may revoke the Market Participant's Unsecured Credit Limit and require the Market Participant to post cash to secure its financial obligations, and these measures will continue in effect for at least twelve months and possibly longer if the Market Participant is late again in posting additional Financial Security or paying an amount set forth in an Invoice. Any time that a Market Participant is late in posting additional Financial Security or paying an amount set forth in an Invoice, the CAISO may also take other enforcement actions as described in Section 12 and the applicable BPM.⁹

Third and finally, the CAISO proposes to modify Section 12.6.2 to limit the amount that a Congestion Revenue Right ("CRR") Holder or Candidate CRR Holder can allocate to a CRR Auction to ninety percent of available credit, as opposed to the one hundred percent allocation currently permitted under Section 12.6.2. This tariff change will facilitate the maintenance of an adequate reserve of available credit for other market activity.

D. Other Tariff Changes

In addition to the tariff changes described above, the CAISO proposes changes throughout Section 12 to correct minor typographical errors, provide minor clarifications, and delete extraneous tariff language. These changes are described in Attachment C hereto.

III. Effective Date

The CAISO requests that the Commission make all of the tariff revisions contained in the instant filing effective as of March 31, 2009, which is the date that the CAISO anticipates MRTU will be implemented.

⁹ At its December 17, 2008 meeting, the Board also authorized CAISO management to include financial penalties as a component of progressive discipline when Market Participants fail to post additional Financial Security or pay amounts set forth in Invoices in a timely manner. As noted in the Memorandum (at 5), the CAISO intends to modify the tariff to assess financial penalties, but the CAISO is deferring such filing until a future date after the implementation of MRTU, when new Charge Codes can be created to implement the penalties.

IV. Communications

Communications regarding this filing should be addressed to the following individuals, whose names should be put on the official service list established by the Commission with respect to this submittal:

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V. Service

The CAISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements under the CAISO Tariff. In addition, the CAISO is posting this transmittal letter and all attachments on the CAISO Website.

VI. Attachments

The following attachments, in addition to this transmittal letter, support the instant filing:

Attachment A	Revised CAISO Tariff sheets that incorporate the proposed changes described above
Attachment B	The proposed changes to the CAISO Tariff shown in black-line format
Attachment C	Table of miscellaneous tariff changes

VII. Conclusion

For the foregoing reasons, the Commission should accept the proposed tariff changes contained in the instant filing to become effective on March 31, 2009. Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

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**Attachment A – Clean Sheets
Credit Policy Tariff Amendment
4th Replacement CAISO Tariff (MRTU)
January 29, 2009**

12 CREDITWORTHINESS.

12.1 Credit Requirements.

The creditworthiness requirements in this section apply to the CAISO's acceptance of, any transaction in a CAISO Market, to the payment of charges pursuant to the CAISO Tariff (including the Grid Management Charge), and to establish credit limits for participation in any CAISO auction of CRRs and to CRR Holders for the holding of CRRs. Each Market Participant (including each Scheduling Coordinator, UDC, MSS, CRR Holder, or Candidate CRR Holder) shall secure its financial transactions with the CAISO (including its participation in any auction of CRRs and for the holding of CRRs) by maintaining an Unsecured Credit Limit and/or by posting Financial Security, the level of which constitutes the Market Participant's Financial Security Amount. For each Market Participant, the sum of its Unsecured Credit Limit and its Financial Security Amount shall represent its Aggregate Credit Limit. Each Market Participant shall have the responsibility to maintain an Aggregate Credit Limit that is at least equal to its Estimated Aggregate Liability.

12.1.1 Unsecured Credit Limit.

Each Market Participant requesting an Unsecured Credit Limit shall submit an application to the CAISO in the form specified on the CAISO Website. The CAISO shall determine the Unsecured Credit Limit for each Market Participant in accordance with the procedures set forth in the applicable Business Practice Manual. The maximum Unsecured Credit Limit for any Market Participant shall be \$150 million. In accordance with the procedures described in the applicable Business Practice Manual, each Market Participant requesting or maintaining an Unsecured Credit Limit is required to submit to the CAISO or its agent financial statements and other information related to its overall financial health as directed by the CAISO. Each Market Participant is responsible for the timely submission of its latest financial statements as well as other information, including but not limited to information concerning all entities that are Affiliates or become Affiliates, that may be reasonably necessary for the CAISO to conduct its evaluation. The CAISO shall determine the Unsecured Credit Limit for each Market Participant as described in Sections 12.1.1.1, 12.1.1.1.1, and 12.1.1.1.2.

As a result of the CAISO's credit evaluation, a Market Participant may be given an Unsecured Credit Limit by the CAISO or denied an Unsecured Credit Limit with the CAISO. Following the initial application and the establishment of an Unsecured Credit limit, the CAISO will review each Market Participant's Unsecured Credit Limit on a quarterly basis, unless that entity does not prepare quarterly statements, in which case the review will occur on an annual basis, and no entity shall be required to submit a new application. In addition, the CAISO may review the Unsecured Credit Limit for any Market Participant whenever the CAISO becomes aware of information that could indicate a Material Change in Financial Condition. In the event the CAISO determines that the Unsecured Credit Limit of a Market Participant must be reduced as a result of a subsequent review, the CAISO shall notify the Market Participant of the reduction, and shall, upon request, also provide the Market Participant with a written explanation of why the reduction was made.

12.1.1.1 Unsecured Credit Limit Calculation.

An Unsecured Credit Limit for each Market Participant that is a Rated or Unrated Public/Private Corporation, a Rated or Unrated Governmental Entity, or a Local Publicly Owned Electric Utility and that requests an Unsecured Credit Limit is calculated as follows:

1. For each Rated Public/Private Corporation, the Unsecured Credit Limit is the lesser of \$150 million or an amount equal to the Market Participant's Tangible Net Worth multiplied by a calculated percentage of Tangible Net Worth. The Tangible Net Worth percentage is comprised of fifty percent (50%) of the Market Participant's lowest credit agency issuer rating and fifty percent (50%) of the Moody's KMV Equivalent Rating, if reasonably applicable. If a Moody's KMV Equivalent Rating is not reasonably applicable, the Tangible Net Worth percentage is comprised of one hundred percent (100%) of the Market Participant's lowest credit agency issuer rating.

2. For each Unrated Public/Private Corporation, the Unsecured Credit Limit is the lesser of \$150 million or an amount equal to the Market Participant's Tangible Net Worth multiplied by a calculated percentage of Tangible Net Worth. The Tangible Net Worth percentage is comprised of one hundred percent (100%) of the Moody's KMV Equivalent Rating.
3. For each Rated Governmental Entity, the Unsecured Credit Limit is the lesser of \$150 million or an amount equal to the Market Participant's Net Assets multiplied by a calculated percentage of Net Assets. The Net Assets percentage is comprised of one hundred percent (100%) of the Market Participant's lowest credit agency issuer rating.
4. (a) For each Unrated Governmental Entity other than one that receives appropriations from the federal government or a state government, the Unsecured Credit Limit is the lesser of \$150 million or an amount equal to a specified percentage of the Market Participant's Net Assets if the Market Participant has a minimum of \$25 million in Net Assets and its Times Interest Earned, Debt Service Coverage and Equity to Assets ratios (as those ratios are defined in the applicable Business Practice Manual) meet or exceed minimums specified in the applicable Business Practice Manual.

(b) For each Unrated Governmental Entity that receives appropriations from the federal government or a state government, the Unsecured Credit Limit is the lesser of \$150 million or the amount appropriated by the federal or relevant state government for the purpose of procuring Energy and Energy-related products and services for the applicable fiscal year. The Unrated Governmental Entity seeking to establish an Unsecured Credit Limit pursuant to this section shall provide documentation establishing its annual appropriations.

million with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign a portion of its Unsecured Credit Limit that is equal to or less than \$1 million to the Joint Powers Authority shall be entitled to do so. A Local Publicly Owned Electric Utility that operates through a Joint Powers Agreement or similar agreement that desires to aggregate its Unsecured Credit Limit with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign a portion of its Unsecured Credit Limit to the Joint Powers Authority that exceeds \$1 million, and any public entity that is not a Local Publicly Owned Electric Utility that operates through a Joint Powers Agreement or similar agreement that desires to aggregate its Unsecured Credit Limit with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign any portion of its Unsecured Credit Limit to the Joint Powers Authority, shall provide documentation that is acceptable to the CAISO and that demonstrates the Local Publicly Owned Electric Utility or public entity will assume responsibility for the financial liabilities of the Joint Powers Authority associated with the assigned or aggregated portion of the Unsecured Credit Limit. Such documentation may include a guaranty or similar instrument acceptable to the CAISO.

Unsecured Credit Limits established pursuant to this Section 12.1.1.1 shall be subject to the CAISO's consideration of the same qualitative factors that apply to all Market Participants as set forth in Section 12.1.1.2 and, accordingly, the CAISO may adjust their Unsecured Credit Limits pursuant to Section 12.1.1.

12.1.1.1.1 Maximum Percentage of Tangible Net Worth and Net Assets.

For Rated and Unrated Public/Private Corporations or Rated Governmental Entities, the maximum percentage of Tangible Net Worth or Net Assets is 7.5 percent (7.5%) for the highest quality firms; that is, those Market Participants who maintain the highest Moody's KMV Equivalent Rating and/or highest credit agency issuer rating. The percentage of Tangible Net Worth or Net Assets that a Market Participant qualifies for will be reduced as its credit risk increases as determined by having a lower Moody's KMV Equivalent Rating and/or lower credit agency issuer rating.

For Unrated Governmental Entities, the CAISO may provide an Unsecured Credit Limit of up to five percent (5%) of Net Assets.

With respect to either of these potential maximum percentages, a lesser amount of unsecured credit may be granted if the CAISO becomes aware of information related to a Material Change in Financial Condition or other significant information that presents a significant risk to the creditworthiness of the entity.

12.1.1.1.2 Unsecured Credit Limit Calculation Steps.

A six-step process is used to determine Unsecured Credit Limits for Market Participants that are Rated Public/Private Corporations, Unrated Public/Private Corporations, and Rated Governmental Entities.

Step 1 – If the Market Participant has a credit rating(s) from one or more of the Nationally Recognized Statistical Rating Organizations, verify the rating(s) with the appropriate organization. Regardless of the number of ratings available, the lowest rating will be used for purposes of determining the percentage of Tangible Net Worth or Net Assets.

Step 2 – Obtain the Market Participant's Moody's KMV Equivalent Rating.

Step 3 – Calculate the percentage of Tangible Net Worth or Net Assets based on the
entity type as described in Section 12.1.1.1.

Step 4 – Calculate the Market Participant’s Tangible Net Worth or Net Assets.

- (a) Tangible Net Worth for Rated or Unrated Public/Private Corporations equals total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets and Affiliate assets) minus intangible assets (*i.e.*, those assets not having a physical existence such as patents, trademarks, franchises, intellectual property, and goodwill) minus derivative assets (net of any matching liabilities, assuming the result is a positive value) minus total liabilities.
- (b) Net Assets for Rated Governmental Entities equals total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets) minus total liabilities.

Step 5 – Calculate the Market Participant’s intermediate Unsecured Credit Limit.

- (a) $\text{intermediate Unsecured Credit Limit} = \text{Tangible Net Worth} * \text{percentage of Tangible Net Worth for Rated or Unrated Public/Private Corporations}$
- (b) $\text{intermediate Unsecured Credit Limit} = \text{Net Assets} * \text{percentage of Net Assets for Rated Governmental Entities}$

Step 6 – Adjust the intermediate Unsecured Credit Limit downward, if warranted based on the CAISO’s review of qualitative and quantitative credit strength indicators in Section 12.1.1.2.

- (a) $\text{Final Unsecured Credit Limit} = \text{intermediate Unsecured Credit Limit from Step 5} * (0 - 100\%)$

12.1.1.2 Qualitative and Quantitative Credit Strength Indicators.

In determining a Market Participant's Unsecured Credit Limit, the CAISO may rely on information gathered from financial reporting agencies, the general/financial/energy press, and provided by the Market Participant to assess its overall financial health and its ability to meet its financial obligations.

Information considered by the CAISO in this process may include the following qualitative factors:

- (a) Applicant's history;
- (b) Nature of organization and operating environment;
- (c) Management;
- (d) Contractual obligations;
- (e) Governance policies;
- (f) Financial and accounting policies;
- (g) Risk management and credit policies;
- (h) Market risk including price exposures, credit exposures and operational exposures;
- (i) Event risk;
- (j) The state or local regulatory environment; and
- (k) Affiliate disclosure information provided pursuant to Section 12.1.1 and/or Section 39.9.

Material negative information in these areas may result in a reduction of up to one hundred percent (100%) in the Unsecured Credit Limit that would otherwise be granted based on the six-step process described in Section 12.1.1.1. A Market Participant, upon request, will be provided a written analysis as to how the provisions in Section 12.1.1.1 and this section were applied in setting its Unsecured Credit Limit.

Financial Security instruments as listed above shall be in such form as the CAISO may reasonably require from time to time by notice to Market Participants, or in such other form as has been evaluated and approved as reasonably acceptable by the CAISO. The CAISO shall publish and maintain standardized forms related to the types of Financial Security listed above on the CAISO Website. The CAISO shall require the use of standardized forms of Financial Security to the greatest extent possible.

12.1.2.1 Additional Procedures Regarding Certain Types of Financial Security.

- (a) Unconditional and irrevocable guaranties: In those cases where a Market Participant is a subsidiary or Affiliate of another entity and would like to utilize the consolidated financial statements and other relevant information of that entity for obtaining credit, a signed corporate guaranty is required. A guarantor would be considered reasonably acceptable and a corresponding Financial Security Amount would be set based on the guarantor's credit evaluation according to the same procedures that apply to the credit evaluation of a Market Participant.
- (b) Cash deposits standing to the credit of the CAISO in interest-bearing escrow accounts: Interest on a cash deposit standing to the credit of the CAISO in an interest-bearing escrow account will accrue to the Market Participant's benefit and will be added to the Market Participant's prepayment account on a monthly basis. Should a Market Participant become delinquent in payments, the Market Participant's outstanding account balance will be satisfied using deposited funds. The Market Participant must take care to replenish used funds to ensure that its Aggregate Credit Limit continues to exceed its Estimated Aggregate Liability.

- (c) Prepayments to the CAISO: Prepayments to the CAISO will be held in an interest-bearing account or another investment acceptable to the Market Participant and the CAISO, and interest on the investment will accrue at the rate as provided for in the investment. Interest will accrue to the Market Participant's benefit and will be added to the Market Participant's prepayment account on a monthly basis. Due to the additional administrative effort involved in tracking and posting interest on such prepayments, the use of this option is not encouraged.

12.1.2.2 Process for Evaluating Requests to Use Non-Standardized Forms of Financial Security.

A Market Participant that seeks permission to use a form for Financial Security other than one or more of the standardized forms posted on the CAISO Website shall seek such permission in a written request to the CAISO that explains the basis for the use of such non-standardized form. The CAISO shall have ten (10) Business Days from receipt of such request to evaluate it and determine whether it will be approved as reasonably acceptable. If the CAISO does not respond to such request within the ten (10) Business Day period, the request shall be deemed to have been denied. Until and unless the CAISO approves the use of a non-standardized form for Financial Security, the Market Participant that submitted such request shall be required to use one of the standardized forms for Financial Security described in this Section

12.1.2.

12.1.2.3 Expiration of Financial Security.

Each Market Participant shall ensure that the financial instruments it uses for the purpose of providing Financial Security will not expire and thereby cause the Market Participant's Aggregate Credit Limit to fall below the Market Participant's Estimated Aggregate Liability. The CAISO will treat a financial instrument that does not have an automatic renewal provision and that is not renewed or replaced within seven (7)

days of its date of expiration as being out of compliance with the standards for Financial Security contained in this Section 12 and will deem the value of such financial instrument to be zero, and will draw upon such Financial Security prior to its stated expiration if deemed necessary by the CAISO.

12.1.2.4 Risk of Loss of Financial Security Amounts Held and Invested by the CAISO.

In accordance with the CAISO's investment policy, the CAISO will invest each Financial Security Amount of a Market Participant only in bank accounts, money market accounts, and/or U.S. Treasury/Agency securities unless a specific written request is received from the Market Participant for a different type of investment and the CAISO provides its written consent to such alternative investment. A Market Participant that provides a Financial Security Amount that is held and invested by the CAISO on behalf of the Market Participant will bear all risks that such Financial Security Amount will incur a loss of principal and/or interest as a result of the CAISO's investment of such Financial Security Amount.

12.1.3 Estimated Aggregate Liability.

The CAISO will periodically calculate the Estimated Aggregate Liability of each Market Participant, based on all charges and settlement amounts for which such Market Participant is liable or reasonably anticipated by the CAISO to be liable for pursuant to the CAISO Tariff. The Estimated Aggregate Liability for each Market Participant shall be determined and applied by the CAISO consistent with the procedures set forth in the applicable Business Practice Manual. The CAISO shall upon request provide each Market Participant with information concerning the basis for the CAISO's determination of its Estimated Aggregate Liability, and the CAISO's determination may be disputed in accordance with the procedures set forth in the applicable Business Practice Manual. The CAISO shall compare each Market Participant's Estimated Aggregate Liability against its Aggregate Credit Limit on a periodic basis.

12.1.3.1 Calculation of Estimated Aggregate Liability.

12.1.3.1.1 Calculation of the Estimated Aggregate Liability Amount.

Except as described in Section 12.1.3.1.2, the CAISO shall use the method described in this Section 12.1.3.1.1 to calculate each Market Participant's Estimated Aggregate Liability. The Estimated Aggregate Liability represents the amount owed to the CAISO for all unpaid obligations, specifically, the obligations for the number of Trading Days outstanding at a given time based on the CAISO's Payments Calendar plus five (5) Trading Days based on the allowable period for Market Participants to respond to CAISO requests for additional Financial Security (three (3) Business Days), and other liabilities including the value of a Market Participant's CRR portfolio, if negative. The charges the CAISO shall use to calculate Estimated Aggregate Liability shall be charges described or referenced in the CAISO Tariff. The CAISO shall calculate the Estimated Aggregate Liability for each Market Participant by aggregating the following obligations:

- invoiced amounts, i.e., any published but unpaid amounts on Invoices;
- published amounts, i.e., amounts for Trading Days for which Settlement Statements have been issued;
- estimated amounts, i.e., amounts based on estimated Settlement amounts calculated by the Settlement system using estimated meter data, and other available operational data;
- extrapolated amounts, i.e., amounts calculated for Trading Days for which neither actual nor estimated Settlement Statements have been issued;
- CRR portfolio value, i.e., the prospective value of the CRR portfolio, if negative, as described in Section 12.6.3;
- CRR Auction limit, i.e., the maximum credit limit for participation in a CRR Auction;

- CRR Auction awards (prior to invoicing), i.e., amounts to cover winning offers at the completion of the CRR Auction but prior to invoicing;
- past-due amounts, i.e., any unpaid or past due amounts on Invoices;
- FERC Annual Charges, i.e., FERC Annual Charges for a Market Participant that has elected to pay such amounts on an annual basis that are owed and outstanding and not already captured in any other component of Estimated Aggregate Liability;
- WAC Charges, i.e., WAC amounts for the current year or future years as specified in Section 36.9.2;
- Estimated Aggregate Liability adjustments, i.e., adjustments that may be necessary as a result of analysis performed as a result of Section 12.4.2; and
- extraordinary adjustments, i.e., adjustments to Settlement amounts related to FERC proceedings, if known and estimated by the CAISO, as described in Section 12.1.3.1.3.

For a Market Participant that maintains multiple BAID numbers, the Estimated Aggregate Liability of the Market Participant as a legal entity shall be calculated by summing the Estimated Aggregate Liabilities for all such BAID numbers and comparing the sum of the Estimated Aggregate Liabilities to the Aggregate Credit Limit of the Market Participant. Market Participants may recommend changes to the liability estimates produced by the CAISO's Estimated Aggregate Liability calculation through the dispute procedures described in Section 12.4.2.

- (c) The Market Participant has provided notice or otherwise demonstrated that it is terminating or significantly reducing its participation in the CAISO Markets. The CAISO may retain a portion of the Financial Security Amount to ensure that the Market Participant is adequately secured with respect to pending liabilities that relate to Settlement re-runs or other liabilities for which the Market Participant may be responsible under this CAISO Tariff.

12.3.1 Self-Supply of UDC Demand.

Notwithstanding anything to the contrary in the CAISO Tariff, a Scheduling Coordinator or UDC that is an Original Participating Transmission Owner or is a Scheduling Coordinator for an Original Participating Transmission Owner shall not be precluded by Section 12.3 from scheduling transactions that serve a UDC's Demand from

- (1) a resource that the UDC owns; and
- (2) a resource that the UDC has under contract to serve its Demand.

12.4 Calculation of Ongoing Financial Security Requirements.

Following the date on which a Market Participant commences trading, if the Market Participant's Estimated Aggregate Liability, as calculated by the CAISO, at any time exceeds its Aggregate Credit Limit, the CAISO shall direct the Market Participant to post an additional Financial Security Amount within three (3) Business Days that is sufficient to ensure that the Market Participant's Aggregate Credit Limit is at least equal to its Estimated Aggregate Liability. The CAISO shall also notify a Market Participant if at any time its Estimated Aggregate Liability exceeds ninety percent (90%) of its Aggregate Credit Limit. For the purposes of calculating the Market Participant's Estimated Aggregate Liability, the CAISO shall include (1) outstanding charges for Trading Days for which Settlement data is available, and (2) an estimate of charges for Trading Days for which Settlement data is not yet available. To estimate charges

for Trading Days for which Settlement data is not yet available, the CAISO will consider available historical Settlement data, and other available operational and market data as described in the applicable Business Practice Manual.

12.4.1 Resolution of a CAISO Request for an Additional Financial Security Amount.

A Market Participant has three (3) Business Days to resolve a CAISO request for additional Financial Security. Within the three (3) Business Days, the Market Participant must either demonstrate to the CAISO's satisfaction that the CAISO's Financial Security request is entirely or partially unnecessary, or post the required Financial Security Amount calculated by the CAISO. If the CAISO and the Market Participant are unable to agree on the appropriate level of Financial Security during the three (3) Business Day review period, the Market Participant must post the additional Financial Security and may continue with the dispute process described in Section 12.4.2. Any excess Financial Security Amounts will be returned to the Market Participant if the dispute process finds in favor of the Market Participant.

12.4.2 Dispute Process Regarding a CAISO Request for an Additional Security Amount.

Market Participants may dispute the Estimated Aggregate Liability calculated by the CAISO and, as a result, the CAISO may reduce or cancel a requested Financial Security adjustment. The following steps are required for a Market Participant to dispute a Financial Security request resulting from the CAISO's calculation of Estimated Aggregate Liability:

- (1) Request by the Market Participant to review the CAISO calculation.
- (2) A reasonable and compelling situation presented, as determined by the Market Participant's CAISO client representative.
- (3) Documentation of facts and circumstances that evidence that the CAISO's calculation of Estimated Aggregate Liability results in an excessive and unwarranted Financial Security posting requirement.
- (4) Approval by the CAISO Manager and/or Director of Customer Services and Industry Affairs and approval by the CAISO Treasurer.

- (5) The CAISO may decline to adjust the initial Estimated Aggregate Liability, as calculated by the CAISO, if the Market Participant has had Financial Security shortfalls in the past twelve (12) months (i.e., it has been shown that the Market Participant's Aggregate Credit Limit at times during the preceding twelve (12) months has been insufficient to cover the Market Participant's Estimated Aggregate Liability).

In no such case shall a CAISO request for increased Financial Security remain outstanding for more than three (3) Business Days. Either the above process is to be completed within three (3) Business Days from the date of the CAISO request for additional Financial Security, or the Market Participant is to post additional Financial Security within the three (3) Business Days and continue this process, which may result in a return of posted Financial Security back to the Market Participant if the results of the dispute process are found to favor the Market Participant.

Factors for consideration in the event this dispute process is utilized include: weighing the risk of using the lower figure to the potential detriment of market creditors if the Market Participant is under-secured and defaults, against the desire not to impose additional potentially unwarranted costs on a Market Participant; equity and consistency of treatment of Market Participants in the dispute process; and the evidentiary value of the information provided by the Market Participant in the dispute process.

12.5 CAISO Enforcement Actions.

12.5.1 CAISO Enforcement Actions Regarding Under-Secured Market Participants.

If a Market Participant's Estimated Aggregate Liability, as calculated by the CAISO, at any time exceeds its Aggregate Credit Limit, the CAISO may take any or all of the following actions:

- (a) The CAISO may withhold a pending payment distribution.

12.5.2 Enforcement Actions for Late Posting of Financial Security.

After each of the first two times during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security within three Business Days as required by Section 12.4, the CAISO will send the delinquent Market Participant a warning letter. After the third time during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security, the CAISO may require the Market Participant to post an additional Financial Security Amount that is as high as the highest level of the Market Participant's Estimated Aggregate Liability during the preceding twelve months. The CAISO will hold such additional Financial Security Amount for no fewer than twelve months following the month in which the Market Participant's third delinquency occurs, and the CAISO may then return to the Market Participant all or a portion of such additional Financial Security Amount if, during the intervening time, the Market Participant has timely posted all further additional Financial Security Amounts requested by the CAISO and has timely paid all of the amounts set forth in the Invoices from the CAISO. After the fourth and any subsequent times during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security, the CAISO may extend the time period that it holds all or a portion of the additional Financial Security Amount resulting from the Market Participant's third delinquency. Any time that a Market Participant is late in posting additional Financial Security, the CAISO may also take other enforcement actions as described in this Section 12 and in the applicable Business Practice Manual, if deemed necessary by the CAISO to protect the financial integrity of the CAISO Markets.

12.5.3 Enforcement Actions for Late Payments.

After each of the first two times during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO will send the delinquent Market Participant a warning letter. After the third time during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may revoke the Market Participant's Unsecured Credit Limit and require the Market Participant to post cash in lieu of unsecured credit or any other form of Financial Security to secure the Market Participant's financial obligations. The CAISO will require such a cash posting for no fewer than twelve months following the month in which the Market Participant's third delinquency occurs, and the CAISO may then return to the Market Participant all or a portion of the posted cash, reinstate the Market Participant's ability to use an Unsecured Credit Limit, and reinstate the Market Participant's ability to use unsecured credit or other form of Financial Security to secure the Market Participant's financial obligations if, during the intervening time, the Market Participant has timely paid all of the amounts set forth in its Invoices from the CAISO, and timely met any requests for Financial Security pursuant to Section 12.4. After the fourth and any subsequent times during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may extend the time period that it imposes the measures described above for the Market Participant's third delinquency. Any time that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO will assess Interest to the Market Participant and will apply Interest payments as set forth in Section 11.29.13.1. Any time that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may also take other enforcement actions as described in this Section 12 and in the applicable Business Practice Manual, if deemed necessary by the CAISO to protect the financial integrity of the CAISO Markets.

12.6 Credit Obligations Applicable to CRRs.

12.6.1 Credit Requirements for CRR Allocations.

Subject to applicable requirements of Section 36.9.2 concerning the prepayment of Wheeling Access Charges, Load Serving Entities eligible to participate in any CRR Allocation are not required to provide additional Financial Security in advance of a CRR Allocation.

12.6.2 Credit Requirements for CRR Auctions.

To establish available credit for participating in any CRR Auction, each CRR Holder or Candidate CRR Holder must have an Unsecured Credit Limit or have provided Financial Security in a form consistent with Section 12.1.2. Each CRR Holder or Candidate CRR Holder may choose to designate a portion of its Unsecured Credit Limit and/or posted Financial Security specifically for the CRR Auction by notifying the CAISO of the CRR Holder's or Candidate CRR Holder's intent. Alternatively, the CRR Holder or Candidate CRR Holder may choose to post additional Financial Security to cover its participation in the CRR Auction, and shall notify the CAISO of the portion of its total Financial Security to be assigned as its CRR Auction bidding limit. In order to participate in a CRR Auction, a CRR Holder or Candidate CRR Holder must have an Aggregate Credit Limit of the greater of \$500,000 or the sum of the absolute values of all of a CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the relevant CRR Auction plus the sum of the Credit Margins for all the CRRs for which the Candidate CRR Holder submits bids in the relevant CRR Auction. The amount of credit available for a CRR Auction is calculated by subtracting the entity's Estimated Aggregate Liability from its Aggregate Credit Limit and then multiplying the resulting amount by ninety (90) percent. A CRR Holder or Candidate CRR Holder that fails to satisfy this requirement shall not be permitted to participate in the relevant CRR Auction, or shall have bids exceeding its available Aggregate Credit Limit for participation in the CRR Auction, in accordance with the above formula, rejected by the CAISO on a last-in, first-out basis.

12.6.3 Credit Requirements for the Holding of CRRs.

Ancillary Service Provider	A Participating Generator, System Resource operator, or Participating Load that is certified to provide an Ancillary Service.
Ancillary Service Region or AS Region	The System Region, the Expanded System Region, or any Sub-Region identified by the CAISO for procurement of Ancillary Services.
Ancillary Service Regional Limit	A maximum or a minimum, or both a maximum and a minimum, amount of (or boundary of) Ancillary Services to be obtained within an AS Region. Limits can be expressed as either megawatt amounts or percentages.
Ancillary Services (AS)	Regulation, Spinning Reserve, Non-Spinning Reserve, Voltage Support and Black Start together with such other interconnected operation services as the CAISO may develop in cooperation with Market Participants to support the transmission of Energy from Generation resources to Loads while maintaining reliable operation of the CAISO Controlled Grid in accordance with WECC standards and Good Utility Practice.
Ancillary Service Schedule or AS Schedule	The notification by the CAISO indicating that a Submission to Self-Provide an Ancillary Service has been selected to provide such service in the DAM, HASP, or RTM.
Annual Peak Demand Forecast	A Demand Forecast of the highest Hourly Demand in a calendar year, in MW.
Applicable Reliability Criteria	The Reliability Standards and reliability criteria established by NERC and WECC and Local Reliability Criteria, as amended from time to time, including any requirements of the NRC.
Approved Load Profile	Local Regulatory Authority approved Load profiles applied to cumulative End-Use Meter Data in order to allocate consumption of Energy to Settlement Periods.
Approved Maintenance Outage	A Maintenance Outage which has been approved by the CAISO through the CAISO Outage Coordination Office.

AWE Notice	Alert, Warning or Emergency Notice
Backup CAISO Control Center	The CAISO Control Center located in Alhambra, California.
Backup Meter	A redundant revenue quality meter which is identical to and of equal accuracy to the primary revenue quality meter connected at the same metering point which must be certified in accordance with the CAISO Tariff.
BAID	Business Associate Identification
Balancing Account	An account set up to allow periodic balancing of financial transactions that, in the normal course of business, do not result in a zero balance of cash inflows and outflows.
Balancing Authority	The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time.
Balancing Authority Area	The collection of generation, transmission, and loads within the metered boundaries of the Balancing Authority. The Balancing Authority maintains load-resource balance within this area.
Balancing Authority Area Gross Load	For the purpose of calculating and billing Minimum Load Costs, Emission Costs, and Start-Up Costs, Balancing Authority Area Gross Load is all Demand for Energy within the CAISO Balancing Authority Area. Balancing Authority Area Gross Load shall not include Energy consumed by: <ul style="list-style-type: none">(a) Station Power that is netted pursuant to Section 10.1.3; and(b) Load that is isolated electrically from the CAISO Balancing Authority Area (i.e., Load that is not synchronized with the CAISO Balancing Authority Area).
Base Case	The base case power flow, short circuit, and stability data bases used for the Interconnection Studies.

Core Reliability Services – Energy Export Charge	The component of the Grid Management Charge that provides for the recovery of the CAISO's costs of providing a basic, non-scalable level of reliable operation for the CAISO Balancing Authority Area and meeting regional and national reliability requirements. The formula for determining the Core Reliability Services – Energy Exports Charge is set forth in Appendix F, Schedule 1, Part A.
Core Reliability Services/ Energy Transmission Services – Transmission Ownership Rights Charge	The component of the Grid Management Charge that provides for the recovery of the CAISO's costs of providing reliability services to Transmission Ownership Rights within the CAISO Balancing Authority Area. The formula for determining the Core Reliability Services/Energy Transmission Services – Transmission Ownership Rights Charge is set forth in Appendix F, Schedule 1, Part A.
CPUC	The California Public Utilities Commission, or its successor.
CPUC Load Serving Entity	Any entity serving retail Load in the CAISO Balancing Authority Area under the jurisdiction of the CPUC, including an electrical corporation under section 218 of the California Public Utilities Code, an electric service provider under section 218.3 of the California Public Utilities Code, and a community choice aggregator under section 331.1 of the California Public Utilities Code.
Credit Margin	The quantity equal to Expected Congestion Revenue minus Fifth Percentile Congestion Revenue.
Critical Energy Infrastructure Information (CEII)	Critical Energy Infrastructure Information shall have the meaning given the term in the regulations of FERC at 18 C.F.R. § 388.12, et seq.
Critical Protective System	Facilities and sites with protective relay systems and Remedial Action Schemes that the CAISO determines may have a direct impact on the ability of the CAISO to maintain system security and over which the CAISO exercises Operational Control.
CRN	Contract Reference Number
CRR	Congestion Revenue Rights
CRR Allocation	The process of nominations and awards held monthly and annually through which the CAISO will distribute CRRs to Candidate CRR Holders.

Minimum Operating Limit (MOL_{min})	The greater of the Minimum Load or the lower bound of the Regulating Range if the resource offers Regulation service.
Minimum Run Time	The minimum amount of time that a Generating Unit must stay on-line after being started-up prior to being Shut-Down, due to physical operating constraints.
Mitigation Frequency	The percent of the Generating Unit's run hours where the unit had one or more Bid segments mitigated under the CAISO Local Market Power Mitigation.
Mitigation Measures	The CAISO market power mitigation measures under the CAISO Tariff.
MNDC	Maximum Net Dependable Capacity
Modified Reserve Sharing LSE	A Load Serving Entity whose Scheduling Coordinator has informed the CAISO in accordance with Section 40.1 of its election to be a Modified Reserve Sharing LSE.
MOL_{max}	Maximum Operating Limit
MOL_{min}	Minimum Operating Limit
Monthly Available CRR Capacity	The upper limit of network capacity that will be used in the monthly CRR Allocation and monthly CRR Auctions calculated by using OTC adjusted for Outages, derates, and Transmission Ownership Rights for the relevant month in accordance with Section 36.4.
Monthly CRR	A Congestion Revenue Right whose term is one calendar month in length and distributed in the monthly CRR Allocation and monthly CRR Auction.
Monthly CRR Eligible Quantity	The MW quantity of CRRs a CRR Holder or Candidate CRR Holder is eligible to nominate for the relevant month in a monthly CRR Allocation.
Monthly CRR Load Metric	The load metric used for determining eligibility for CRR Allocation as provided in Section 36.8.2.2.
Moody's KMV Equivalent Rating	The rating derived by Moody's KMV from the Moody's KMV Estimated Default Frequency that effectively translates the Moody's Estimated Default Frequency into a comparable credit agency rating. The Moody's KMV Equivalent Rating may correspond to the Moody's KMV Spot Credit Rating (CreditEdge Plus), Bond Default Rate Mapping or Dynamic Rating (RiskCalc), or other rating established by Moody's KMV for this purpose.

NERC/WECC Charges

The charges approved by FERC, pursuant to Section 215 of the FPA and FERC issuances related thereto, that provide funding for the statutory-related functions performed by NERC, the WECC, and regional advisory bodies that serve the WECC, or their successors or assignees.

NERC/WECC Charge Trust Account

An account to be established by the CAISO for the purpose of maintaining funds collected from Scheduling Coordinators and disbursing such funds to the WECC.

NERC/WECC Metered Demand

For purposes of calculating NERC/WECC Charges, a Scheduling Coordinator's net metered CAISO Demand plus Unaccounted for Energy for net metered CAISO Demand and Transmission Losses for metered CAISO Demand. A Scheduling Coordinator's net metered CAISO Demand equals the Scheduling Coordinator's metered CAISO Demand (which adds Energy associated with imports from and subtracts Energy associated with exports to other Balancing Authority Areas), less metered CAISO Demand for Station Power and for Energy required for storage at electric energy storage facilities, such as pumped storage. For purposes of calculating NERC/WECC Metered Demand, Unaccounted for Energy and Transmission Losses allocable to net metered CAISO Demand will be allocated pro rata to each Scheduling Coordinator based on the Scheduling Coordinator's net metered CAISO Demand.

Net Assets

For governmental and not-for-profit entities, as defined in Step 4(b) of Section 12.1.1.1.2.

Net Hourly Energy Charge

Total charges to all Demand minus total payments to all Supply both based on the product of MWh amounts specified in all Day-Ahead Schedules and the relevant LMPs at the applicable PNodes or Aggregated Pricing Node.

TAC Transition Date	January 1, 2001, the date described in Section 4.2 of Appendix F, Schedule 3, when the first New Participating TO's execution of the Transmission Control Agreement took effect, which established the start of the TAC Transition Period for the calculation of the Access Charge.
TAC Transition Period	The 10-year transition period for the CAISO's Access Charge methodology commencing January 1, 2001 through December 31, 2010.
Take-Out Point	The metering points at which a Scheduling Coordinator Metered Entity or CAISO Metered Entity takes delivery of Energy.
Tangible Net Worth	For Rated or Unrated Public/Private Corporations, as defined in Step 4(a) of Section 12.1.1.1.2.
Tax Exempt Debt	Municipal Tax Exempt Debt or Local Furnishing Bonds.
Tax Exempt Participating TO	A Participating TO that is the beneficiary of outstanding Tax Exempt Debt issued to finance any electric facilities, or rights associated therewith, which are part of an integrated system including transmission facilities the Operational Control of which is transferred to the CAISO pursuant to the Transmission Control Agreement.
TCA	Transmission Control Agreement
TEA	Transmission Exchange Agreement
Third Party Supply	Energy that is deemed to have been purchased from third parties to supply Station Power Load during the Netting Period.
Tie Point Meter	A revenue meter, which is capable of providing Settlement Quality Meter Data, at a Scheduling Point or at a boundary between Utility Distribution Companies within the CAISO Controlled Grid.
Tier 1 UIE	The quantity of Uninstructed Deviation from the resource's Instructed Imbalance Energy.
Tier 2 UIE	The quantity of Uninstructed Deviation from the resource's Day-Ahead Schedule.

Tier LT	The tier of the annual CRR Allocation process through which the CAISO allocates Long Term CRRs.
Time Horizon	The time period to which a given CAISO Market optimization process applies. For the IFM and RUC the Time Horizon consists of each Trading Hour of the next Trading Day. For the HASP, the Time Horizon is 1.75 Trading Hours in fifteen-minute increments. For STUC the Time Horizon is 4.25 Trading Hours in fifteen-minute increments. For RTUC the Time Horizon is a variable number of fifteen-minute intervals that runs every fifteen minutes and covers 4 to 7 intervals. For the RTD, the Time Horizon is seven five-minute intervals span over thirty-five minutes.
Time Period	The period of time for Scheduling or Dispatch activities, which is a Trading Hour in the DAM and a Dispatch Interval in the RTM.
TO	Transmission Owner

Attachment B – Blacklines
Credit Policy Tariff Amendment
4th Replacement CAISO Tariff (MRTU)
January 29, 2009

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12.1.1 Unsecured Credit Limit.

Each Market Participant requesting an Unsecured Credit Limit shall submit an application to the CAISO in the form specified on the CAISO Website. The CAISO shall determine the Unsecured Credit Limit for each Market Participant in accordance with the procedures set forth in the applicable Business Practice Manual. The maximum Unsecured Credit Limit for any Market Participant shall be \$~~250~~150 million. In accordance with the procedures described in the applicable Business Practice Manual, each Market Participant requesting or maintaining an Unsecured Credit Limit is required to submit to the CAISO or its agent financial statements and other information related to its overall financial health as directed by the CAISO. Each Market Participant is responsible for the timely submission of its latest financial statements as well as other information, including but not limited to information concerning all entities that are Affiliates or become Affiliates, that may be reasonably necessary for the CAISO to conduct its evaluation. The CAISO shall determine the Unsecured Credit Limit for each Market Participant as described in Sections 12.1.1.1, 12.1.1.1.1, and 12.1.1.1.2.

As a result of the CAISO's credit evaluation, a Market Participant may be given an Unsecured Credit Limit by the CAISO or denied an Unsecured Credit Limit with the CAISO. Following the initial application and the establishment of an Unsecured Credit limit, the CAISO will review each Market Participant's Unsecured Credit Limit on a quarterly basis, unless that entity does not prepare quarterly statements, in which case the review will occur on an annual basis, and no entity shall be required to submit a new application. In addition, the CAISO may review the Unsecured Credit Limit for any Market Participant whenever the CAISO becomes aware of information that could indicate a Material Change in Financial Condition. In the event the CAISO determines that the Unsecured Credit Limit of a Market Participant must be reduced as a result of a subsequent review, the CAISO shall notify the Market Participant of the reduction, and shall, upon request, also provide the Market Participant with a written explanation of why the reduction was made.

12.1.1.1 Unsecured Credit Limit Calculation.

An Unsecured Credit Limit (~~UCL~~) for each Market Participant that is a Rated or Unrated Public/Private Corporation, a Rated or Unrated Governmental Entity, or a Local Publicly Owned Electric Utility and that requests an Unsecured Credit Limit is calculated as follows:

1. For each Rated Public/Private Corporation, the Unsecured Credit Limit is the lesser of \$~~250-150~~ million or an amount equal to the Market Participant's Tangible Net Worth (~~TNW~~) multiplied by a calculated percentage of Tangible Net Worth. The Tangible Net Worth percentage is comprised of fifty percent (50%) of the Market Participant's ~~Credit Rating-Default Probability (CRDP)-lowest credit agency issuer rating~~ and fifty percent (50%) of the Moody's KMV-Default Probability Equivalent Rating, if reasonably applicable. If a Moody's KMV Equivalent Rating is not reasonably applicable, the Tangible Net Worth percentage is comprised of one hundred percent (100%) of the Market Participant's lowest credit agency issuer rating.
2. For each Unrated Public/Private Corporation, the Unsecured Credit Limit is the lesser of \$~~250-150~~ million or an amount equal to the Market Participant's Tangible Net Worth multiplied by a calculated percentage of Tangible Net Worth. The Tangible Net Worth percentage is comprised of one hundred percent (100%) of the Moody's KMV-Default Probability Equivalent Rating.
3. For each Rated Governmental Entity, the Unsecured Credit Limit is the lesser of \$~~250-150~~ million or an amount equal to the Market Participant's Net Assets (~~NA~~) multiplied by a calculated percentage of Net Assets. The Net Assets percentage is comprised of one hundred percent (100%) of the Market Participant's ~~Credit Rating-Default Probability-lowest credit agency issuer rating~~.
4. (a) For each Unrated Governmental Entity other than one that receives appropriations from the federal government or a state government, the Unsecured Credit Limit is the lesser of \$~~250-150~~ million or an amount equal to a specified percentage of the Market Participant's Net Assets if the Market Participant has a minimum of \$25 million in Net Assets and its Times Interest

Earned, Debt Service Coverage and Equity to Assets ratios (as those ratios are defined in the applicable Business Practice Manual) meet or exceed minimums specified in the applicable Business Practice Manual.

(b) For each Unrated Governmental Entity that receives appropriations from the federal government or a state government, the Unsecured Credit Limit is the lesser of ~~\$250-150~~ million or the amount appropriated by the federal or relevant state government for the purpose of procuring Energy and Energy-related products and services for the applicable fiscal year. The Unrated Governmental Entity seeking to establish an Unsecured Credit Limit pursuant to this section shall provide documentation establishing its annual appropriations.

5. A Local Publicly Owned Electric Utility with a governing body having ratemaking authority that has submitted an application for an Unsecured Credit Limit shall be entitled to an Unsecured Credit Limit of \$1 million without regard to its Net Assets. Such Local Publicly Owned Electric Utility shall be entitled to request an Unsecured Credit Limit based on Net Assets as provided in Section 12.1.1.1(3) or 12.1.1.1(4) in order to establish an Unsecured Credit Limit as the greater of \$1 million or the amount determined as provided in this Section 12.1.1.1(5). A public entity that is not a Local Publicly Owned Electric Utility is not entitled to an Unsecured Credit Limit of \$1 million under this Section 12.1.1.1(5) but may seek to establish an Unsecured Credit Limit as provided in any other provision of the CAISO Tariff that may apply.

Public entities, including Local Publicly Owned Electric Utilities, that operate through a Joint Powers Agreement, or a similar agreement acceptable to the CAISO with the same legal force and effect, shall be entitled to aggregate or assign their Unsecured Credit Limits subject to the following limitations and requirements. A public entity that is a party to a Joint Powers Agreement or similar agreement and that is also participating independently in the CAISO Markets with an established Unsecured Credit Limit shall not be entitled to assign

or aggregate any portion of its Unsecured Credit Limit that the public entity is using to support financial liabilities associated with its individual participation in the CAISO Markets. A Local Publicly Owned Electric Utility that operates through a Joint Powers Agreement or similar agreement that desires to aggregate a portion of its Unsecured Credit Limit that is equal to or less than \$1 million with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign a portion of its Unsecured Credit Limit that is equal to or less than \$1 million to the Joint Powers Authority shall be entitled to do so. A Local Publicly Owned Electric Utility that operates through a Joint Powers Agreement or similar agreement that desires to aggregate its Unsecured Credit Limit with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign a portion of its Unsecured Credit Limit to the Joint Powers Authority that exceeds \$1 million, and any public entity that is not a Local Publicly Owned Electric Utility that operates through a Joint Powers Agreement or similar agreement that desires to aggregate its Unsecured Credit Limit with one or more other Local Publicly Owned Electric Utilities that operate through that Joint Powers Agreement or similar agreement or to assign any portion of its Unsecured Credit Limit to the Joint Powers Authority, shall provide documentation that is acceptable to the CAISO and that demonstrates the Local Publicly Owned Electric Utility or public entity will assume responsibility for the financial liabilities of the Joint Powers ~~Agency Authority~~ associated with the assigned or aggregated portion of the Unsecured Credit Limit. Such documentation may include a guaranty or similar instrument acceptable to the CAISO.

Unsecured Credit Limits established pursuant to this Section 12.1.1.1 shall be subject to the CAISO's consideration of the same qualitative factors that apply to all Market Participants as set forth in Section 12.1.1.2 and, accordingly, the CAISO may adjust their Unsecured Credit Limits pursuant to Section

~~12.1.1. The \$250 million hard cap on Unsecured Credit Limits specified in Section 12.1.1 has been set with respect to the length of the current CAISO Payments Calendar, i.e., a maximum of ninety-five (95) Trading Days of charges outstanding. Upon implementation of payment acceleration (scheduled for 2008), the CAISO expects to recommend a reduction in the \$250 million hard cap. Any changes to the \$250 million cap will require FERC approval of an amendment to the applicable provisions of the CAISO Tariff.~~

12.1.1.1.1 Maximum Percentage of Tangible Net Worth and Net Assets.

For Rated and Unrated Public/Private Corporations or Rated Governmental Entities, the maximum percentage of Tangible Net Worth or Net Assets is 7.5 percent (7.5%) ~~if the Market Participant's combined default probability (CDP) is less than or equal to 0.06 percent (0.06%);~~

~~The maximum allowable percentage of 7.5% is~~ for the highest quality firms; that is, those Market Participants ~~with a CDP of 0.06 percent or less who maintain the highest Moody's KMV Equivalent Rating and/or highest credit agency issuer rating.~~ The ~~percentage Tangible Net Worth percentage (TNWP) or Net Assets percentage (NAP) of Tangible Net Worth or Net Assets~~ that a Market Participant qualifies for will be reduced as its credit risk increases as determined by having a lower Moody's KMV Equivalent Rating and/or lower credit agency issuer rating.

For Unrated Governmental Entities, the CAISO may provide an Unsecured Credit Limit of up to five percent (5%) of Net Assets.

With respect to either of these potential maximum percentages, a lesser amount of unsecured credit may be granted if the CAISO becomes aware of information related to a Material Change in Financial Condition or other significant information that presents a significant risk to the creditworthiness of the entity.

12.1.1.1.2 Unsecured Credit Limit Calculation Steps.

An ~~eight~~^{six}-step process is used to determine Unsecured Credit Limits for Market Participants that are Rated Public/Private Corporations, Unrated Public/Private Corporations, and Rated Governmental Entities.

Step 1 – If the Market Participant has a credit rating(s) from one or more of the

~~"Nationally Recognized Statistical Rating Organizations" (NRSRO), verify the rating(s) with the appropriate NRSRO organization. Regardless of the number of ratings available, the lowest rating will be used for purposes of determining the percentage of Tangible Net Worth or Net Assets.~~

~~Step 2 – Calculate the Market Participant's Average Rating Default Probability (ARDP).~~

~~(a) — ARDP is the sum of Credit Rating Default Probabilities divided by the total number of Credit Rating Default Probabilities used.~~

~~(b) — The median default probability calculated by Moody's KMV (i.e., MKMV) for Standard & Poor's and Moody's long-term credit rating classes is provided on the CAISO Website at <http://www.caiso.com/1bd8/1bd8b09916e50.html>. Default probabilities are available from each NRSRO.~~

~~(c) — Issuer ratings without the benefit of credit enhancement would be used in this assessment. Such ratings are also known as "counterparty" or "underlying" ratings.~~

~~Step 32 – Using Moody's KMV's CreditEdge or RiskCalc software, obtain the Market Participant's Moody's KMV Default Probability (MKDP) Equivalent Rating.~~

~~(a) — Since Moody's KMV calculates default probabilities directly, the MKMV Default Probability will be used without any mapping.~~

~~Step 43 – Calculate a combined default probability (CDP) based on one of the following methodologies: the percentage of Tangible Net Worth or Net Assets based on the entity type as described in Section 12.1.1.1.:~~

~~(a) — CDP for Rated Public/Private Corporations = (ARDP * 50%) + (MKDP * 50%) or (ARDP * 100%) if a MKDP is not reasonably applicable.~~

~~(b) — CDP for Unrated Public/Private Corporations = MKDP * 100%~~

~~(c) — CDP for Rated Governmentally Owned Utilities = ARDP * 100%~~

~~Step 5 – Calculate the Market Participant's Tangible Net Worth percentage (TNWP) or Net Assets percentage (NAP).~~

~~(a) $TNWP = MAP * BDP / GDP$ for Rated/Unrated Public/Private Corporations~~

~~(b) $NAP = MAP * BDP / GDP$ for Rated Governmental Entities~~

~~Where:~~

~~MAP = maximum allowable percentage;~~

~~BDP = base default probability;~~

~~GDP = see Step 4 above; and~~

~~If the SC's GDP > 0.5%, the TNWP or NAP equals 0%~~

Step ~~6~~4 – Calculate the Market Participant's Tangible Net Worth or Net Assets.

(a) Tangible Net Worth for Rated/or Unrated Public/Private Corporations = Assets minus Intangibles (e.g., Good Will) minus Liabilities equals total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets and Affiliate assets) minus intangible assets (i.e., those assets not having a physical existence such as patents, trademarks, franchises, intellectual property, and goodwill) minus derivative assets (net of any matching liabilities, assuming the result is a positive value) minus total liabilities.

(b) Net Assets for Rated Governmental Entities = Total Assets minus Total Liabilities equals total assets minus assets (net of any matching liabilities, assuming the result is a positive value) the CAISO reasonably believes to be restricted or potentially unavailable to settle a claim in the event of a default (examples include restricted assets) minus total liabilities.

Step ~~7~~5 – Calculate the Market Participant's intermediate Unsecured Credit Limit.

(a) intermediate Unsecured Credit Limit = Tangible Net Worth * TNWP percentage of Tangible Net Worth for Rated ~~/or~~ Unrated Public/Private Corporations

(b) intermediate Unsecured Credit Limit = Net Assets * NAP percentage of Net Assets for Rated Governmental Entities

Step ~~86~~ – Adjust the intermediate Unsecured Credit Limit downward, if warranted based on the CAISO's review of qualitative and quantitative credit strength indicators factors in Section 12.1.1.4~~2~~.

(a) Final Unsecured Credit Limit = intermediate Unsecured Credit Limit from Step ~~75~~ * (0 - 100%)

12.1.1.2 Qualitative and Quantitative Credit Strength Indicators.

In determining a Market Participant's Unsecured Credit Limit, the CAISO may rely on information gathered from financial reporting agencies, the general/financial/energy press, and provided by the Market Participant to assess its overall financial health and its ability to meet its financial obligations.

Information considered by the CAISO in this process may include the following qualitative factors:

- (a) Applicant's history;
- (b) Nature of organization and operating environment;
- (c) Management;
- (d) Contractual obligations;
- (e) Governance policies;
- (f) Financial and accounting policies;
- (g) Risk management and credit policies;
- (h) Market risk including price exposures, credit exposures and operational exposures;
- (i) Event risk;
- (j) The state or local regulatory environment; and

- (k) Affiliate disclosure information provided pursuant to Section 12.1.1 and/or Section 39.9.

Material negative information in these areas may result in a reduction of up to one hundred percent (100%) in the Unsecured Credit Limit that would otherwise be granted based on the ~~eight~~six-step process described in Section 12.1.1.1. A Market Participant, upon request, will be provided a written analysis as to how the provisions in Section 12.1.1.1 and this section were applied in setting its Unsecured Credit Limit.

* * *

12.1.2 Financial Security and Financial Security Amount.

A Market Participant that does not have an Unsecured Credit Limit, or that has an Unsecured Credit Limit that is less than its Estimated Aggregate Liability, shall post Financial Security that is acceptable to the CAISO and that is sufficient to ensure that its Aggregate Credit Limit (i.e., the sum of its Unsecured Credit Limit and Financial Security Amount) is equal to or greater than its Estimated Aggregate Liability. The Financial Security posted by a Market Participant may be any combination of the following types of Financial Security provided in favor of the CAISO and notified to the CAISO under Section 12.3:

- (a) an irrevocable and unconditional letter of credit issued by a bank or financial institution that is reasonably acceptable to the CAISO;
- (b) an irrevocable and unconditional surety bond issued by an insurance company that is reasonably acceptable to the CAISO;
- (c) an unconditional and irrevocable guaranty issued by a company that is reasonably acceptable to the CAISO;
- (d) a cash deposit standing to the credit of the CAISO in an interest-bearing escrow account maintained at a bank or financial institution that is reasonably acceptable to the CAISO;
- (e) a certificate of deposit in the name of the CAISO issued by a bank or financial institution that is reasonably acceptable to the CAISO;

- (f) a payment bond certificate in the name of the CAISO issued by a bank or financial institution that is reasonably acceptable to the CAISO; or
- (g) a prepayment to the CAISO.

Financial Security instruments as listed above shall be in such form as the CAISO may reasonably require from time to time by notice to Market Participants-, or in such other form as has been evaluated and approved as reasonably acceptable by the CAISO. The CAISO shall publish and maintain standardized forms related to the types of Financial Security listed above on the CAISO Website. The CAISO shall require the use of standardized forms of Financial Security to the greatest extent possible.

* * *

12.1.2.2 Process for Evaluating Requests to Use Non-Standardized Forms of Financial Security.

A Market Participant that seeks permission to use a form for Financial Security other than one or more of the standardized forms posted on the CAISO ~~Home Page Website~~ shall seek such permission in a written request to the CAISO that explains the basis for the use of such non-standardized form. The CAISO shall have ten (10) Business Days from receipt of such request to evaluate it and determine whether it will be approved as reasonably acceptable. If the CAISO does not respond to such request within the ten (10) Business Day period, the request shall be deemed to have been denied. Until and unless the CAISO approves the use of a non-standardized form for Financial Security, the Market Participant that submitted such request shall be required to use one of the standardized forms for Financial Security described in this Section 12.1.2.

* * *

12.1.2.4 Risk of Loss of Financial Security Amounts Held and Invested by the CAISO.

In accordance with the CAISO's investment policy, the CAISO will invest each Financial Security Amount of a Market Participant only in bank accounts, ~~high-quality~~ money market accounts, and/or U.S. Treasury/Agency securities unless a specific written request is received from the Market Participant for a different type of investment and the CAISO provides its written consent to such alternative investment. A Market Participant that provides a Financial Security Amount that is held and invested by the CAISO on

behalf of the Market Participant will bear all risks that such Financial Security Amount will incur a loss of principal and/or interest as a result of the CAISO's investment of such Financial Security Amount.

* * *

12.1.3.1.1 Calculation of the Estimated Aggregate Liability Amount.

Except as described in Section 12.1.3.1.2, the CAISO shall use the method described in this Section 12.1.3.1.1 to calculate each Market Participant's Estimated Aggregate Liability. The Estimated Aggregate Liability represents the amount owed to the CAISO for all unpaid obligations, specifically, the obligations for the number of Trading Days outstanding at a given time based on the CAISO's Payments Calendar plus ~~seven-five (75)~~ Trading Days based on the allowable period for Market Participants to respond to CAISO requests for additional ~~Financial Security collateral (five-three (53)~~ Business Days), and other liabilities including the value of a Market Participant's CRR portfolio, if negative. The charges the CAISO shall use to calculate Estimated Aggregate Liability shall be charges described or referenced in the CAISO Tariff. The CAISO shall calculate the Estimated Aggregate Liability for each Market Participant by aggregating the following obligations:

- ~~Un~~invoiced amounts, i.e., any published but unpaid amounts on Invoices;
- published amounts, i.e., amounts for Trading Days for which Settlement Statements have been issued;
- estimated amounts, i.e., amounts based on estimated Settlement amounts calculated by the Settlement system using estimated meter data, and other available operational data;
- extrapolated amounts, i.e., amounts calculated for Trading Days for which neither actual nor estimated Settlement Statements have been issued;
- CRR portfolio value, i.e., the prospective value of the CRR portfolio, if negative, as described in Section 12.6.3;
- CRR Auction limit, i.e., the maximum credit limit for participation in a CRR Auction;

- CRR Auction awards (prior to invoicing), i.e., amounts to cover winning offers at the completion of the CRR Auction ~~but~~ prior to invoicing;
- past-due amounts, i.e., any unpaid or past due amounts on Invoices;
- ~~FERC Annual FERC FeesCharges~~, i.e., FERC ~~fees~~Annual Charges for a Market Participant that has elected to pay such amounts on an annual basis that are owed and outstanding and not already captured in any other component of Estimated Aggregate Liability;
- WAC Charges, i.e., WAC amounts for the current year or future years as specified in Section 36.9.2;
- Estimated Aggregate Liability adjustments, i.e., adjustments that may be necessary as a result of analysis performed as a result of Section 12.4.2; and
- extraordinary adjustments, i.e., adjustments to Settlement amounts related to FERC proceedings, if known and estimated by the CAISO, as described in Section 12.1.3.1.3.

For a Market Participant that maintains multiple BAID numbers, the Estimated Aggregate Liability of the Market Participant as a legal entity shall be calculated by summing the Estimated Aggregate Liabilities for all such BAID numbers and comparing the sum of the Estimated Aggregate Liabilities to the Aggregate Credit Limit of the Market Participant. Market Participants may recommend changes to the liability estimates produced by the CAISO's Estimated Aggregate Liability calculation through the dispute procedures described in Section 12.4.2.

* * *

12.4 Calculation of Ongoing Financial Security Requirements.

Following the date on which a Market Participant commences trading, if the Market Participant's Estimated Aggregate Liability, as calculated by the CAISO, at any time exceeds its Aggregate Credit Limit, the CAISO shall direct the Market Participant to post an additional Financial Security Amount within ~~five-three~~ (53) Business Days that is sufficient to ensure that the Market Participant's Aggregate Credit Limit is at least equal to its Estimated Aggregate Liability. The CAISO shall also notify a Market

Participant if at any time its Estimated Aggregate Liability exceeds ninety percent (90%) of its Aggregate Credit Limit. For the purposes of calculating the Market Participant's Estimated Aggregate Liability, the CAISO shall include (1) outstanding charges for Trading Days for which Settlement data is available, and (2) an estimate of charges for Trading Days for which Settlement data is not yet available. To estimate charges for Trading Days for which Settlement data is not yet available, the CAISO will consider available historical Settlement data, and other available operational and market data as described in the applicable Business Practice Manual.

12.4.1 Resolution of a CAISO Request for an Additional Financial Security Amount.

A Market Participant has ~~five-three~~ (53) Business Days to resolve a CAISO request for additional Financial Security. Within the ~~five-three~~ (53) Business Days, the Market Participant must either demonstrate to the CAISO's satisfaction that the CAISO's Financial Security request is entirely or partially unnecessary, or post the required Financial Security Amount calculated by the CAISO. If the CAISO and the Market Participant are unable to agree on the appropriate level of Financial Security during the ~~five~~ ~~three~~ (53) Business Day review period, the Market Participant must post the additional Financial Security and may continue with the dispute process described in Section 12.4.2. Any excess Financial Security Amounts will be returned to the Market Participant if the dispute process finds in favor of the Market Participant.

12.4.2 Dispute Process Regarding a CAISO Request for an Additional Security Amount.

Market Participants may dispute the Estimated Aggregate Liability calculated by the CAISO and, as a result, the CAISO may reduce or cancel a requested Financial Security adjustment. The following steps are required for a Market Participant to dispute a Financial Security request resulting from the CAISO's calculation of Estimated Aggregate Liability:

- (1) Request by the Market Participant to review the CAISO calculation.
- (2) A reasonable and compelling situation presented, as determined by the Market Participant's CAISO client representative.
- (3) Documentation of facts and circumstances that evidence that the CAISO's calculation of Estimated Aggregate Liability results in an excessive and unwarranted Financial Security posting requirement.

- (4) Approval by the CAISO Manager and/or Director of Customer Services and Industry Affairs and approval by the CAISO Treasurer.
- (5) The CAISO may decline to adjust the initial Estimated Aggregate Liability, as calculated by the CAISO, if the Market Participant has had Financial Security shortfalls in the past twelve (12) months (i.e., it has been shown that the Market Participant's Aggregate Credit Limit at times during the preceding twelve (12) months has been insufficient to cover the Market Participant's Estimated Aggregate Liability).

In no such case shall a CAISO request for increased Financial Security remain outstanding for more than ~~five-three (53)~~ Business Days. Either the above process is to be completed within ~~five-three (53)~~ Business Days from the date of the CAISO request for additional Financial Security, or the Market Participant is to post additional Financial Security within the ~~five-three (53)~~ Business Days and continue this process, which may result in a return of posted Financial Security back to the Market Participant if the results of the dispute process are found to favor the Market Participant.

Factors for consideration in the event this dispute process is utilized include: weighing the risk of using the lower figure to the potential detriment of market creditors if the Market Participant is under-secured and defaults, against the desire not to impose additional potentially unwarranted costs on a Market Participant; equity and consistency of treatment of Market Participants in the dispute process; and the evidentiary value of the information provided by the Market Participant in the dispute process.

12.5 CAISO Enforcement Actions ~~Regarding Under-Secured Market Participants.~~

12.5.1 CAISO Enforcement Actions Regarding Under-Secured Market Participants.

If a Market Participant's Estimated Aggregate Liability, as calculated by the CAISO, at any time exceeds its Aggregate Credit Limit, the CAISO may take any or all of the following actions:

- (a) The CAISO may withhold a pending payment distribution.
- (b) The CAISO may limit trading, which may include rejection of Bids, including Self-Schedules, rejection or cancellation of Inter-SC Trades in their entirety (i.e., both sides of the Inter-SC Trade) at any time, and/or limiting other CAISO Market

activity, including limiting eligibility to participate in a CRR Allocation or CRR Auction. In such case, the CAISO shall notify the Market Participant of its action and the Market Participant shall not be entitled to participate in the CAISO Markets or CRR Auctions or submit further Bids, including Self-Schedules, or otherwise participate in the CAISO Markets until the Market Participant posts an additional Financial Security Amount that is sufficient to ensure that the Market Participant's Aggregate Credit Limit is at least equal to its Estimated Aggregate Liability.

- (c) The CAISO may require the Market Participant to post an additional Financial Security Amount in lieu of an Unsecured Credit Limit for a period of time.
- (d) The CAISO may restrict, suspend, or terminate the Market Participant's CRR Entity Agreement or any other service agreement.
- (e) The CAISO may resell the CRR Holder's CRRs in whole or in part, including any Long Term CRRs, in a subsequent CRR Auction or bilateral transaction, as appropriate.
- (f) The CAISO will not implement the transfer of a CRR if the transferee or transferor has an Estimated Aggregate Liability in excess of its Aggregate Credit Limit.

In addition, the CAISO may restrict or suspend a Market Participant's right to submit further Bids, including Self-Schedules, or require the Market Participant to increase its Financial Security Amount if at any time such Market Participant's potential additional liability for Imbalance Energy and other CAISO charges is determined by the CAISO to be excessive by comparison with the likely cost of the amount of Energy reflected in Bids or Self-Schedules submitted by the Market Participant.

12.5.2 Enforcement Actions for Late Posting of Financial Security.

After each of the first two times during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security within three Business Days as required by Section 12.4, the CAISO will send the delinquent Market Participant a warning letter. After the third time during a rolling twelve-

month period that a Market Participant is late in posting additional Financial Security, the CAISO may require the Market Participant to post an additional Financial Security Amount that is as high as the highest level of the Market Participant's Estimated Aggregate Liability during the preceding twelve months. The CAISO will hold such additional Financial Security Amount for no fewer than twelve months following the month in which the Market Participant's third delinquency occurs, and the CAISO may then return to the Market Participant all or a portion of such additional Financial Security Amount if, during the intervening time, the Market Participant has timely posted all further additional Financial Security Amounts requested by the CAISO and has timely paid all of the amounts set forth in the Invoices from the CAISO. After the fourth and any subsequent times during a rolling twelve-month period that a Market Participant is late in posting additional Financial Security, the CAISO may extend the time period that it holds all or a portion of the additional Financial Security Amount resulting from the Market Participant's third delinquency. Any time that a Market Participant is late in posting additional Financial Security, the CAISO may also take other enforcement actions as described in this Section 12 and in the applicable Business Practice Manual, if deemed necessary by the CAISO to protect the financial integrity of the CAISO Markets.

12.5.3 Enforcement Actions for Late Payments.

After each of the first two times during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO will send the delinquent Market Participant a warning letter. After the third time during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may revoke the Market Participant's Unsecured Credit Limit and require the Market Participant to post cash in lieu of unsecured credit or any other form of Financial Security to secure the Market Participant's financial obligations. The CAISO will require such a cash posting for no fewer than twelve months following the month in which the Market Participant's third delinquency occurs, and the CAISO may then return to the Market Participant all or a portion of the posted cash, reinstate the Market Participant's ability to use an Unsecured Credit Limit, and reinstate the Market Participant's ability to use unsecured credit or other form of Financial Security to secure the Market Participant's financial obligations if, during the intervening time, the Market Participant has timely paid all of the amounts set forth in its Invoices from the CAISO, and

timely met any requests for Financial Security pursuant to Section 12.4. After the fourth and any subsequent times during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may extend the time period that it imposes the measures described above for the Market Participant's third delinquency. Any time that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO will assess Interest to the Market Participant and will apply Interest payments as set forth in Section 11.29.13.1. Any time that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO may also take other enforcement actions as described in this Section 12 and in the applicable Business Practice Manual, if deemed necessary by the CAISO to protect the financial integrity of the CAISO Markets.

* * *

12.6.2 Credit Requirements for CRR Auctions.

To establish available credit for participating in any CRR Auction, each CRR Holder or Candidate CRR Holder must have an Unsecured Credit Limit or have provided Financial Security in a form consistent with Section 12.1.2. Each CRR Holder or Candidate CRR Holder may choose to designate a portion of its Unsecured Credit Limit and/or posted Financial Security specifically for the CRR Auction by notifying the CAISO of the CRR Holder's or Candidate CRR Holder's intent. Alternatively, the CRR Holder or Candidate CRR Holder may choose to post additional Financial Security to cover its participation in the CRR Auction, and shall ~~by~~ notify the CAISO of the portion of its total Financial Security to be assigned as its CRR Auction bidding limit. ~~Each CRR Holder or Candidate CRR Holder that participates in a CRR Auction shall ensure that its Aggregate Credit Limit in excess of its Estimated Aggregate Liability is the greater of \$500,000 or the sum equal to the sum of the absolute values of all of its bids for CRRs submitted in the relevant CRR Auction plus the sum of the Credit Margins for all of the CRRs for which the Candidate CRR Holder submits bids in the relevant CRR Auction. In order to participate in a CRR Auction, a CRR Holder or Candidate CRR Holder must have an Aggregate Credit Limit of the greater of \$500,000 or the sum of the absolute values of all of a CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the relevant CRR Auction plus the sum of the Credit Margins for all the CRRs for~~

which the Candidate CRR Holder submits bids in the relevant CRR Auction. The amount of credit available for a CRR Auction is calculated by subtracting the entity's Estimated Aggregate Liability from its Aggregate Credit Limit and then multiplying the resulting amount by ninety (90) percent. A CRR Holder or Candidate CRR Holder that fails to satisfy this requirement shall not be permitted to participate in the relevant CRR Auction, or shall have bids exceeding its Available Aggregate Credit Limit for participation in the CRR Auction, in accordance with the above formula, rejected by the CAISO on a last-in, first-out basis.

* * *

CAISO Tariff Appendix A

Master Definitions Supplement

* * *

~~ARDP~~

~~Average Rating Default Probability~~

* * *

~~Average Rating Default Probability (ARDP)~~

~~The sum of Credit Rating Default Probabilities divided by the total number of Credit Rating Default Probabilities used.~~

* * *

~~Credit Rating Default Probability~~

~~The 5-year median default probability based on a rating agency's credit rating as listed in the Credit Rating Default Probabilities table in Section A-2.2 of the CAISO Credit Policy & Procedures Guide.~~

* * *

~~MKMV Default Probability~~

~~A calculated result of Moody's KMV CreditEdge or RiskCalc software products.~~

* * *

Moody's KMV Equivalent Rating

The rating derived by Moody's KMV from the Moody's KMV Estimated Default Frequency that effectively translates the Moody's Estimated Default Frequency into a comparable credit agency rating. The Moody's KMV Equivalent Rating may correspond to the Moody's KMV Spot Credit Rating (CreditEdge Plus), Bond Default Rate Mapping or Dynamic Rating (RiskCalc), or other rating established by Moody's KMV for this purpose.

* * *

Net Assets ~~(NA)~~

For governmental and not-for-profit entities, as defined in Step 4(b) of Section 12.1.1.1.2~~as total assets minus total liabilities.~~

* * *

Tangible Net Worth ~~(TNW)~~

For Rated or Unrated Public/Private Corporations, as defined in Step 4(a) of Section 12.1.1.1.2~~Total assets minus intangibles (e.g., good-will) minus total liabilities.~~

* * *

~~TNW~~

~~Tangible Net Worth~~

**Attachment C – Table of Miscellaneous Tariff Changes
Credit Policy Tariff Amendment
4th Replacement CAISO Tariff (MRTU)
January 29, 2009**

TABLE OF MISCELLANEOUS TARIFF CHANGES

CAISO Tariff Section	Proposed Tariff Change
12.1.1.1, 12.1.1.1.2	Eliminate the use of the abbreviation "UCL" as the short form for the defined term Unsecured Credit Limit
12.1.1.1, 12.1.1.1.1, 12.1.1.1.2	Eliminate the use of the abbreviation "TNW" as the short form for the defined term Tangible Net Worth
12.1.1.1, 12.1.1.1.1, 12.1.1.1.2	Eliminate the use of the abbreviation "NA" as the short form for the defined term Net Assets
12.1.1.1	Substitute the defined term Joint Powers Authority for the undefined and incorrect term "Joint Powers Agency"
12.1.1.1	Delete outdated and extraneous tariff language regarding the \$250 million cap on Unsecured Credit Limits, the CAISO's planned reduction of that cap, and the need for FERC approval of the planned reduction
12.1.1.1.1, 12.1.1.1.2	Eliminate the use of the abbreviation "TNWP" as the short form for the phrase "Tangible Net Worth percentage," and revise that phrase to read "percentage of Tangible Net Worth"
12.1.1.1.1, 12.1.1.1.2	Eliminate the use of the abbreviation "NAP" as the short form for the phrase "Net Assets percentage," and revise that phrase to read "percentage of Net Assets"
12.1.1.1.2	Eliminate the extraneous use of the abbreviation "NRSRO" as the short form for the defined term Nationally Recognized Statistical Rating Organizations, and eliminate the use of quotations marks around that defined term
12.1.1.1.2	Correct the erroneous cross-reference to Section 12.1.1.1, which should instead be a cross-reference to Section 12.1.1.2, and state that Section 12.1.1.2 concerns qualitative and quantitative credit strength indicators
12.1.1.2	Update the section to reflect that the process in Section 12.1.1.1 for calculating Unsecured Credit Limits now has six steps rather than eight steps pursuant to this tariff amendment
12.1.2.2	Replace the outdated term "CAISO Home Page" with the defined term CAISO Website

CAISO Tariff Section	Proposed Tariff Change
12.1.2.4	Replace the phrase "high-quality money market accounts" with the phrase "money market accounts" to be consistent with the CAISO's current investment policy as adopted by the CAISO Governing Board
12.1.3.1.1	Replace the word "collateral" with the more precise defined term Financial Security
12.1.3.1.1	Correct a typographical error by eliminating capital "I" in the word "invoiced"
12.1.3.1.1	Replace the phrases "Annual FERC Fees" and "FERC fees" with the more precise defined term FERC Annual Charges
12.5	Revise the title of the section to reflect that "CAISO Enforcement Actions Regarding Under-Secured Market Participants" is now the title of newly designated Section 12.5.1 and that new Sections 12.5.2 and 12.5.3 concern other types of CAISO Enforcement Actions
12.6.2	Make minor clarifications to the tariff language regarding the requirements to participate in a CRR Auction
12.6.2	Replace the phrase "Available Credit Limit" with the phrase "available Aggregate Credit Limit," which incorporates the appropriate defined term
Appendix A, definition of ARDP	Delete the definition because the defined term is no longer used pursuant to this tariff amendment
Appendix A, definition of Average Rating Default Probability (ARDP)	Delete the definition because the defined term is no longer used pursuant to this tariff amendment
Appendix A, definition of Credit Rating Default Probability	Delete the definition because the defined term is no longer used pursuant to this tariff amendment
Appendix A, definition of MKMV Default Probability	Delete the definition because the defined term is no longer used pursuant to this tariff amendment
Appendix A, definition of TNW	Delete the definition because the defined term is no longer used pursuant to this tariff amendment