Proposed Enhancements to California ISO Credit Policy

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1 Introduction

In 2006 CAISO implemented significant changes to how unsecured credit limits are established for Market Participants. The change was necessary to bring CAISO's practice in line with other ISOs/RTOs and FERC policy. Because the new credit policy represented such a significant shift from prior practice, it was anticipated that additional amendments would be necessary as CAISO gained experience with the new approach, and to strengthen and/or clarify the policy to better protect Market Participants. The credit policy enhancements proposed in this paper represent general improvements to CAISO's existing credit policy and businesses processes and are, for the most part, independent of MRTU. As a result, the stakeholder process and implementation of these enhancements are not linked to MRTU start date unless otherwise noted. However, the implementation of a number of these proposals (as identified in the body of the paper, as appropriate) are dependent on the settlements change management process and could be constrained by any implementation freezes after the rollout of MRTU and the implementation of Payment Acceleration. The extent of the full impact cannot be completely assessed until the conclusion of the stakeholder process.

All references in this paper to the CAISO Tariff are made to the "Conformed Currently Effective CAISO Tariff as of August 7, 2008" – a copy of which may be found at http://www.caiso.com/201c/201cb941416e0.html.

2 Overview of Stakeholder Process

2.1 Proposed Credit Policy Enhancements

Policy enhancements may be recommended by a stakeholder at any time. Some of the proposed credit policy enhancements have come from recommendations by stakeholders. Other are being proposed as a result of CAISO trying to refine, improve or further clarify elements of CAISO's credit policy as implemented in 2006. In all cases, CAISO is presenting each issue, potential alternatives, and the proposed enhancement subject to additional discussion and refinement as a result of the stakeholder process. Credit policy enhancements under consideration in this paper were grouped into the following three categories:

A. Unsecured Credit Limits

a. Changing the Methodology for Determining the Percent of Tangible Net Worth or Net Assets to Assign
b. Refining the Definition of Tangible Net Worth
c. Setting of the Maximum Unsecured Credit Limit

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f. Establishing Financial Penalties for Late Payments
g. Establishing Financial Penalties for Failure to Respond to Calls for Additional Financial Security within the Specified Timeframe

D. Other Credit Related Concerns Raised by Stakeholders

a. To be compiled as part of stakeholder process

Each proposed credit policy enhancement is discussed in subsequent sections of this document. Each of those sections contains a statement of the existing policy, issues, practices of other ISOs/RTOs, discussion of potential alternatives under consideration and the proposed credit policy enhancement. Stakeholder comments related to these proposed credit policy enhancements will be solicited as part of each stakeholder meeting and conference call. A template for providing these comments as well as all comments received will be posted to the CAISO Credit Policy Stakeholder Process webpage at http://www.caiso.com/docs/2003/04/21/2003042117001924814.html. This webpage will be the common repository for all whitepapers, agendas, presentations and comments associated with this stakeholder process.

2.2 Benchmarking with Other ISOs/RTOs

CAISO has periodically compared its credit practices against those of peer ISOs/RTOs. CAISO has looked to the practices of peers in the development of alternatives and formulation of a recommendation for the issues raised in this paper with the goal of developing a set of credit policies that represent common and effective best practices across the industry. Accordingly, each proposed credit policy enhancement has a section dedicated to presenting CAISO's best understanding of the related policies of the other ISOs/RTOs. The ISOs/RTOs included in the benchmark included:

- ISO New England
- New York ISO
- Midwest ISO
- PJM
- Southwest Power Pool and
- ERCOT

2.3 Tariff and Business Practice Manual (BPM) Changes

To provide stakeholders relevant reference points to the sections of the CAISO Tariff and BPM that may be impacted by each proposed credit policy enhancement, section numbers of the potentially impacted documents are referenced. Although CAISO strived to have a comprehensive list of affected sections, final impacts cannot be known until final enhancements are agreed upon and Tariff and BPM development begins. CAISO's Change Management process will apply to changes to the Tariff and BPM, giving stakeholders another opportunity to comment on the final credit policy enhancements before they are implemented.

2.4 Stakeholder Process

As outlined in the table in the following section, three stakeholder events are currently planned (the number may be reduced or increased based on consensus of the stakeholders) – each of which will be preceded by a Market Notice and the materials to be reviewed. Following each stakeholder event, written stakeholder comments pertaining to specific proposals may be sent to CAISO. The CAISO will post all written comments on the CAISO website.

2.5 Milestones and Estimated Timeline for Implementing Credit Policy Enhancements

The following table provides key activities and an estimated timeline for the implementation of the proposed credit policy enhancements. It is estimated that the stakeholder process will consist of three (3) meetings – one (1) on-site meeting and two (2) conferences calls. Depending on stakeholder support for the proposed enhancements, it may be necessary to increase or decrease the number of stakeholder meetings. An alternative to increasing the number of stakeholder meetings may come as a result of stakeholders electing to defer some of the proposed enhancements to a later implementation.

Items in **bold** in the following table are critical activities and target dates for stakeholder events and/or deliverables.

Activity	Estimated Target Date
Publish Market Notice for on-site stakeholder meeting	8/29/2008
Post whitepaper of proposed credit policy enhancements	9/8/2008
Post on-site stakeholder meeting agenda and presentation	9/18/2008
Conduct on-site stakeholder meeting (stakeholder meeting 1 of 3)	**9/22/2008**
Obtain stakeholder written comments resulting from on-site stakeholder meeting	**10/7/2008**
Post response to stakeholder written comments and publish Market Notice for stakeholder conference call	10/21/2008
Post stakeholder conference call agenda and presentation	10/24/2008
Conduct stakeholder conference call (stakeholder meeting 2 of 3)	**10/28/2008**
Receive stakeholder written comments resulting from stakeholder conference call	**11/4/2008**
Post draft final credit policy enhancement whitepaper and publish Market Notice for final stakeholder conference call	11/11/2008
Post stakeholder conference call agenda and presentation	**11/14/2008**
Conduct final stakeholder conference call (stakeholder call 3 of 3)	**11/18/2008**
Receive stakeholder written comments resulting from stakeholder conference call	**11/25/2008**
Post final credit policy enhancements whitepaper	12/2/2008
Present credit policy enhancements to CAISO Board of Governors	12/16/2008
File Tariff language for FERC approval	1/6/2009
Obtain FERC order	3/3/2009
Post BPM changes; credit policy enhancements effective date	3/3/2009

3 Unsecured Credit Limits

Unsecured Credit Limits may be extended to Market Participants who submit an Application for Unsecured Credit and who meet the criteria established for various entity types. Most entities are subject to CAISO's eight-step process for determining the amount of unsecured credit to assign. Depending on an entity's credit ratings and other factors, CAISO may grant an Unsecured Credit Limit based on a Percentage of Tangible Net Worth for Public/Private Corporations or Net Assets for Governmental entities. Qualitative factors may also be considered by CAISO to reduce the Unsecured Credit Limit in step 8 of the eight-step process. CAISO now proposes certain refinements to this eight-step process used to determine unsecured credit limits. Additionally, CAISO proposes a reduction in the maximum amount of unsecured credit any Market Participant may receive.

3.1 Changing the Methodology for Determining the Percent of Tangible Net Worth or Net Assets to Assign

Current Policy

Except for certain municipal entities and those whose obligations are backed by the Federal or State Government, CAISO uses an eight-step process to set Unsecured Credit Limits for most entities. This process considers credit rating agency rating default probabilities and/or Moody's KMV Estimated Default Frequency. This information is used to determine the Percent of Tangible Net Worth (TNW) or Net Assets (NA) to be assigned in setting a Market Participant's Unsecured Credit Limit (UCL) The methodology varies based on whether a Market Participant is a Rated or Unrated Public/Private Corporation or a Rated Governmental entity.

Rated and Unrated Public/Private Corporations and Rated Governmental entity are eligible for up to 7.5% of TNW or NA. An Unrated Governmental Entity is eligible for up to 5% of NA. The maximum percentage of TNW or NA are available to the highest quality firms based on a Combined Default Probability (CDP) less than or equal to 0.06%. A progressively less percentage of TNW or NA will be used in calculating Unsecured Credit Limits as the CDP increases. Where the CDP is greater than 0.5%, the percentage of TNW or NA is zero.

Unrated Governmental Entities that receive appropriations from a federal or state government and Local Publicly Owned Electric Utilities, or for Unrated Governmental Entities that do not receive appropriations from a federal or state government may be eligible for Unsecured Credit Limits under other provisions. CAISO proposes no changes to the methods used to set unsecured credit limits for such entities.

Issue

The current method for determining an entity's maximum allowable percentage of TNW or NA is "hardcoded" in a problematic way. CAISO translates an entity's Moody's and/or S&P ratings into a Default Probability, and combines this with a Moody's KMV default probability (if available). This Combined Default Probability is then mapped to an allowable percentage of TNW or NA.

The Moody's and S&P 5-Year Median Default Probability, as provided by Moody's KMV, in the Credit Rating Default Probabilities table in Section 4.3.1.3 of the BPM for Credit Management, is insensitive to rapid deterioration of market conditions as recently seen during the credit crisis that began in 2007. This, coupled with allowing the maximum percentage of TNW or NA to be applied to entities with a Combined Default Probability of less than or equal to 0.06% allows the cutoff for granting unsecured credit to rise and fall substantially based on economic conditions. Not having the ability to raise or lower the Combined Default Probability threshold without a Tariff amendment could potentially allow unsecured credit to be extended to entities that have credit ratings below investment grade.

Practices of other ISOs/RTOs

ISO New England	Sets unsecured credit limits determined by a fixed percentage of TNW based on agency ratings. If two ratings are available, uses the lower of the two. If three different ratings are available, uses the middle of the three. Uses the predominate rating if two of three ratings are the same.
New York ISO	Sets unsecured credit limits determined by a fixed percentage of TNW based on agency ratings. If two ratings are available, uses the lower of the two. If three different ratings are available, uses the middle of the three. Uses the predominate rating if two of three ratings are the same.
Midwest ISO	Uses a credit scoring model to set UCLs based on a percentage of TNW from 0% to 12%.
PJM	Uses a credit scoring model to set UCLs based on a percentage of TNW from 0% to 7.5%. Currently evaluating not extending unsecured credit to any member and requiring each member to be “fully collateralized” to cover potential exposures.
Southwest Power Pool	Uses a credit scoring model to set UCLs based on a percentage of 0% to 5 % TNW for both a Small and Large Company Model and 0%-7.5% TNW for a Non For Profit Model.
ERCOT	Sets UCLs based on a fixed percentage of TNW based on agency ratings, using the lower of two different ratings; does not contemplate a third rating.

Discussion of Potential Alternatives under Consideration

<u>Alternative 1</u>: Maintain the existing eight-step process but remove the specific reference to the 0.06% Combined Default Probability in the CAISO Tariff that sets the threshold for allowing entities to receive the maximum percentage of TNW or NA . The concept behind having a Combined Default Probability threshold is to ensure that Market Participants with the best credit ratings receive the maximum amount of unsecured credit and that lower-rated, investment grade Market Participants would receive a lower proportionate share based on their higher Combined Default Probabilities.

In this alternative, the CAISO would recalibrate the Combined Default Probability limit so that only investment grade Market Participants receive unsecured credit, and that entities with the strongest credit ratings would continue to receive the highest percentage of TNW or NA.

A limitation of this alternative is the issue of not having the ability to blend agency ratings of those credit rating agencies that do not publish Estimated Default Probabilities (e.g., Fitch and Dominion). The Fitch or Dominion rating can be ignored when a Market Participant has a Moody’s and/or S&P rating. However, for Market Participants only having a Fitch or Dominion rating, CAISO currently maps those ratings to a Moody’s and/or S&P rating in order to obtain an *approximate* Estimated Default Probability.

<u>Alternative 2</u>: Replace the use of Estimated Default Probabilities in assigning unsecured credit limits with a model of assigning unsecured credit limits based on Credit Agency Issuer Ratings and Moody's KMV spot credit category (if available). This would require changes to the eight-step process and replacing the Credit Rating Default Probabilities table in Section 4.3.1.3 of the BPM for Credit Management with the following table:

Grade	Moody's KMV Spot Credit Category	Credit Agency Issuer Rating			Percent of TNW or Net Assets
		Moody's	S&P	Fitch	
Investment Grade	Aaa	Aaa	AAA	AAA	7.50
	Aa1	Aa1	AA+	AA+	7.50
	Aa2	Aa2	AA	AA	7.00
	Aa3	Aa3	AA-	AA-	7.00
	A1	A1	A+	A+	6.00
	A2	A2	A	A	5.00
	A3	A3	A-	A-	4.00
	Baa1	Baa1	BBB+	BBB+	3.00
	Baa2	Baa2	BBB	BBB	2.00
	Baa3	Baa3	BBB-	BBB-	1.00
Speculative Grade	Ba1	Ba1	BB+	BB+	0.00
	Ba2	Ba2	BB	BB	0.00
	Ba3	Ba3	BB-	BB-	0.00
	B1	B1	B+	B+	0.00
	B2	B2	B	B	0.00
	B3	B3	B-	B-	0.00
	Caa1	Caa1	CCC+	CCC+	0.00
	Caa2	Caa2	CCC	CCC	0.00
	Caa3	Caa3	CCC-	CCC-	0.00
	Ca	Ca	CC	CC	0.00
	D	D	C	C	0.00
			D	D	0.00

All available credit agency issuer ratings and/or the Moody's KMV spot credit category will continue to be used in determining the Percent of TNW or Net Assets to be used. When two or more ratings are available, a simple average of Percent of TNW or Net Assets will be calculated.

Example:

If a Rated Public/Private Corporation has a Moody's issuer rating of "A2", an S&P issuer rating of "BBB+" and a Moody's KMV spot credit category of "Baa2". CAISO would calculate the allowable percentage of TNW as follows:

Moody's issuer rating of "A2"	5.00% of TNW
S&P issuer rating of "BBB+"	3.00% of TNW
Moody's KMV spot credit rating of "Baa2"	<u>2.00% of TNW</u>
Simple average of % of TNW values	<u>3.33% of TNW</u>

<u>Alternative 3</u>: Same as Alternative 2 replacing the simple average of all available credit agency issuer ratings and/or the Moody's KMV spot credit and retaining the blending percentages used in the current eight-step process. The Moody's KMV Spot Credit Category takes into consideration current market events and other indicators. Because credit agency issuer ratings may lag market events for an extended period of time, this approach weights Moody's KMV a little more heavily than the simple average approach. That is, for a Rated Public/Private Corporation the TNW Percentage equals 50% of Moody's KMV plus 50% of the average of all available credit agency issuer ratings.

Example:

Using the same example as above, a Rated Public/Private Corporation has a Moody's issuer rating of "A2", an S&P issuer rating of "BBB+" and a Moody's KMV spot credit category of "Baa2". CAISO would calculate the allowable percentage of TNW as follows:

Moody's issuer rating of "A2"	5.00% of TNW	
S&P issuer rating of "BBB+"	3.00% of TNW	Average 4.00% of TNW
Moody's KMV spot credit rating of "Baa2"	2.00% of TNW	

TNW Percentage = 50% of issuer rating + 50% of Moody's KMV
TNW Percentage = (50% * 4.00%) + (50% * 2.00%) = 2.00% + 1.00% = <u>3% of TNW</u>

Alternatives 2 and 3 provide the following benefits:

- Retains the ability to blend multiple agency ratings and Moody's KMV data in setting the Percent of TNW or Net Assets
- Enables the use of Fitch ratings which cannot be used with the current model since Fitch does not publish agency rating default probabilities
- Allows use of other ratings (for example, Dominion) besides Moody's, S&P and Fitch as long as those ratings have published mappings to the ratings in the table
- Would simplify the calculation by not having to convert agency ratings to agency rating default probabilities
- Eliminates the need to convert agency ratings to agency rating default probabilities
- May simplify the 8-step process or even eliminate a step or two
- The fixed percentage approach is consistent with the approach used by some of the other ISOs/RTOs

As stated in the benefits above, depending on which alternative is chosen, it may be possible to simplify and reduce the number of steps in the process as a result of this change. It will also eliminate a number of terms that were specifically defined in the CASIO Tariff and BPM that were specifically related to the eight-step process.

Proposed Credit Policy Enhancement

CAISO proposes changing its current eight-step process to the process identified as Alternative 3.

Tariff and BPM Implications

CASIO Tariff §§12.1.1.1.1, 12.1.1.1.2
BPM for Credit Management §§1.3, 4.3.1.1 – 4.3.1.4, 4.3.2, 4.3.3.1 – 4.3.3.3

3.2 Refining the Definition of Tangible Net Worth

Current Policy

Currently Tangible Net Worth is defined as "Total Assets minus Intangibles (e.g., Good Will) minus Total Liabilities".

Issue

A company will oftentimes setup Balance Sheet line items that represent assets earmarked for a specific purpose. Such line items might include restricted assets and assets invested in or received from affiliated entities. Because these assets may not be available for the general, day-to-day operations of the entity requesting unsecured credit or wishing to guarantee the activities of one of its affiliates and because these assets can change significantly from one financial reporting period to another, it seems prudent for CAISO to eliminate them in determining an entity's Tangible Net Worth.

Practices of other ISOs/RTOs

ISO New England	Allowable percentage of TNW: Assets less liabilities less intangible assets (e.g., patents, trademarks, franchises, intellectual property, goodwill and any other assets not having a physical existence). Does not specifically exclude Restricted Cash.
New York ISO	Does not reduce TNW by Restricted Cash and Net Value of Long-Term Trading Book. Does not include "any other asset not having a physical existence" in definition of Intangible Assets.
Midwest ISO	Calculates TNW as Total Equity minus - Restricted Cash - Intangible Assets (not specifically defined) - Goodwill - Investment in High Risk Affiliates - Receivables from High Risk Affiliates - Net Value of Long-Term Trading Book - Nuclear Decommissioning Fund
PJM	The same as CAISO's existing definition; i.e., Total Assets minus Intangibles (e.g., Good Will) minus Total Liabilities.
Southwest Power Pool	Tangible Net Worth = Total Equity – Intangibles – Treasury Stock
ERCOT	Defines Unencumbered Assets as Total Assets minus Total Secured Debt.

Discussion of Potential Alternatives under Consideration

Alternative 1: Maintain the current use and definition of Tangible Net Worth in the CAISO Tariff and the BPM for Credit Management.

Alternative 2: Expand the current definition of Tangible Net Worth to be specific as to the assets that would be excluded in the calculation. Specifically expand the definition as follows where bolded and italicized lettering represents the changes from the current definition:

> "Tangible Net Assets equals total assets ***minus assets reserved for a specific purpose (e.g., restricted assets or assets invested in or received from Affiliates)*** minus intangible assets ***(i.e., those assets not having a physical existence such as patents, trademarks, franchises, intellectual property and*** goodwill) minus total liabilities".

Alternative 3: Expand the current definition of Tangible Net Worth according to Alternative 2 above but also include the additional Midwest ISO items that were excluded from Alternative 2 (i.e., Net Value of Long-Term Trading Book and Nuclear Decommissioning Fund).

Proposed Credit Policy Enhancement

At a minimum, CAISO proposes adopting Alternative 2 but is open to including one or more of the additional items that comprise Midwest ISO's definition.

Tariff and BPM Implications

CASIO Tariff §§12.1.1.1.2
BPM for Credit Management §§1.3, 4.3.2 step 6, 4.3.3.1

3.3 Setting of the Maximum Unsecured Credit Limit

Current Policy

According to Section 12.1.1 of the CAISO Tariff, "the maximum Unsecured Credit Limit for any Market Participant shall be $250 million." Section 12.1.1.1 of the CAISO Tariff goes on to say that "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."

Issue

The maximum Unsecured Credit Limit of $250 million was set when CAISO moved away from the policy of unlimited credit for entities that had credit ratings at or above certain levels, or had their obligations backed by the State or Federal Government. The $250 million was set based on a maximum of 95 days of charges outstanding according to the current CAISO payment calendar. In the Credit Management BPM, CAISO noted that a reduction in the limit would be considered with the implementation of Payment Acceleration. Based on heightened credit concerns by several market participants in the CAISO and other ISO/RTO markets, and a review of Market Participants actual obligations since 2006 (where obligations were significantly lower than $250 million), reducing the limit even prior to Payment Acceleration would bring CAISO closer to the maximum limits allowed by peer ISOs/RTOs and this change would not appear to represent an unreasonable hardship for CAISO's Market Participants given current activity levels.

Practices of other ISOs/RTOs

ISO New England	Based on a combination of a member's Tangible Net Worth (Net Assets for a governmental entity) and credit rating, the lesser of **$75 million** or 20% of ISO-NE receivables of unsecured credit may be assigned if creditworthiness criteria are met.
New York ISO	Based on a combination of a member's Tangible Net Worth (Net Assets for a governmental entity) and credit rating, as much as **20% of NYISO receivables** of unsecured credit may be assigned if creditworthiness criteria are met.
Midwest ISO	Based on a combination of a member's Tangible Net Worth (Net Assets for a governmental entity) and credit rating, as much as **$75 million** of unsecured credit may be assigned if creditworthiness criteria are met.
PJM	Based on a combination of a member's Tangible Net Worth (Net Assets for a governmental entity) and credit rating, as much as **$150 million** of unsecured credit may be assigned if creditworthiness criteria are met. Currently evaluating not extending unsecured credit to any member and requiring each member to be "fully collateralized" to cover potential exposures. Alternatively. PJM is recommending lowering its maximum unsecured credit limit to as low as **$50 million**.
Southwest Power Pool	Based on a combination of a member's Tangible Net Worth (Net Assets for a governmental entity) and credit rating, as much as **$25 million** of unsecured credit may be assigned if creditworthiness criteria are met.
ERCOT	Based on a combination of a member's Tangible Net Worth and credit rating, as much as **$100 million** of unsecured credit may be assigned if creditworthiness criteria are met.

Discussion of Potential Alternatives under Consideration

Alternative 1: Retain the current maximum Unsecured Credit Limit of $250 million until such time that Payment Acceleration goes live, scheduled for six months after the rollout of MRTU.

Alternative 2: Reduce the maximum Unsecured Credit Limit to $100 million to bring in line with the practices of the other ISOs/RTOs and possibly reduce it further when Payment Acceleration goes live.

Alternative 3: Reduce the maximum Unsecured Credit Limit to an amount lower than $100 million based on stakeholder consensus. Determine whether the amount could be further reduced when Payment Acceleration goes live.

Proposed Credit Policy Enhancement

Based on a review of actual Estimated Aggregate Liabilities since the rollout of CAISO's current credit policy and other ISO/RTO maximum unsecured credit limits, CAISO proposes to set the maximum Unsecured Credit Limit to $100 million (Alternative 2). Further reductions may be considered as part of the implementation of Payment Acceleration which is currently estimated to go live six months after the roll out of MRTU.

Tariff and BPM Implications

CASIO Tariff §§12.1.1 and 12.1.1.1
BPM for Credit Management §§4.1, 4.2, 4.4.2

4 Financial Security

A Market Participant that does not have an Unsecured Credit Limit or that has an Unsecured Credit Limit that is less than their Estimated Aggregate Liability must post Financial Security that is acceptable to CAISO and that is sufficient to ensure that Unsecured Credit Limit plus Financial Security is greater than or equal to their Estimated Aggregate Liability. The CAISO is proposing a number of credit policy enhancements that would provide clarity to its existing policy and introduce a new form of Guaranty for Affiliates.

4.1 Accepting Financial Security from Non-US Based Entities

Current Policy

Current Tariff language indicates that Financial Security must be "reasonably acceptable to the CAISO". CAISO has limited the granting of unsecured credit or accepted guarantees from only entities with a business presence in the United States.

Issue

The CAISO market continues to attract entities from around the world. The CAISO Tariff and the BPM for Credit Management are largely silent on how non-U.S. entities are treated when it comes to granting an Unsecured Credit Limit or acceptable forms of Financial Security. It has been CAISO practice to only grant Unsecured Credit Limits to a U.S.-based entity or accept Financial Security from a U.S.-based entity or one having operations in the U.S.. A clear process needs to be described in the CAISO Tariff and/or the BPM to provide transparency around this issue for Market Participants.

Practices of other ISOs/RTOs

ISO New England	Accepts a Foreign Guaranty as an acceptable form of financial assurance. The Foreign Guarantor must satisfy all requirements that apply to a Non-Foreign Guarantor as well as meet six other criteria including, maintaining a specific rating from S&P and Moody's, having a reciprocity agreement with the US that is acceptable to the ISO-NE, providing financial statements that are consistent with GAAP or international accounting standards, American Depository Receipts listed on NYSE, ASE or NASDAQ, and the amount guaranteed cannot exceed US $10,000,000.
New York ISO	Does not accept Financial Security from non-US Based Entities.
Midwest ISO	Does not accept Financial Security from non-US Based Entities.
PJM	Does not accept Financial Security from non-US Based Entities.
Southwest Power Pool	Does not accept Financial Security from non-US Based Entities.
ERCOT	Must meet applicable credit standards and must submit a board approved standard form guarantee Agreement for foreign Entities

Discussion of Potential Alternatives under Consideration

<u>Alternative 1</u>: CAISO will not assign an Unsecured Credit Limit or accept a Guaranty from a non-US based entity. Non-US based entities are limited to posting cash in the form of a prepayment to the CAISO unless they choose to post another form of Financial Security through a rated, US-based Affiliate that reports its own financials. Non-US banks posting a Letter of Credit may do so through a US-based, retail branch of the bank (the use of a confirming bank for the letter of credit). Other forms of Financial Security may continue to be posted from a US-based bank, financial institution or insurance company meeting CAISO's minimum credit rating standard (i.e., "A-" by S&P, "A3" by Moody's or equivalent from another rating agency).

Alternative 2: Same as Alternative 1 except to permit Canadian entities to provide Guarantees. CAISO attorneys have worked with Canadian outside counsel in drafting a Guaranty that they believe is enforceable in each of the Canadian provinces. This alternative would not extend to other forms of Financial Security such as Letters of Credit.

Alternative 3: Same as Alternative 2 except to expand the policy to accept Guarantees and other Financial Security Instruments from entities outside the US according to strict guidelines such as those implemented by ISO New England.

Proposed Credit Policy Enhancement

At a minimum, CAISO recommends clarifying existing credit policy by adopting Alternative 2 thus allowing Canadian entities, that otherwise meet CAISO's creditworthiness standards, to provide Guarantees. In the past, CAISO has been reluctant to accept other forms of Financial Security from non-US operating entities because of the complexity and enforcement of international laws and the challenges and costs of getting a judgment outside of the US. However, because an increasing number of non-US based entities or their affiliates participate in the CAISO market, CAISO is open to expanding its policy further provided that sufficient safeguards and limitations can be put in place such as those implemented by ISO New England.

Tariff and BPM Implications

CASIO Tariff §§12.1.2, 12.1.2.1
BPM for Credit Management §§5.1 (perhaps a new section in section 5 dealing with non-US based entities).

4.2 Accepting Guarantees on Behalf of Affiliated Entities

Current Policy

According to Section 12.1.1.4 of CAISO Tariff:

> If any Market Participant requesting or maintaining an Unsecured Credit Limit is affiliated with one or more other entities subject to the credit requirements of Section 12 of the CAISO Tariff, the CAISO may consider the overall creditworthiness and financial condition of such Affiliates when determining the applicable Unsecured Credit Limit. The CAISO may determine that the maximum Unsecured Credit Limit specified in Section 12.1.1 applies to the combined activity of such Affiliates.

Issue

Based on PJM's experience where two affiliates participated in their market and one defaulted on FTR (CRR) obligations while the other continued to receive payments from PJM for FTRs (CRRs), thinly capitalized and/or under secured affiliates of a parent guarantor pose a default risk when CRR holding requirements change dramatically. Under the current CAISO Tariff, this default risk is shared by all net creditors for the month of the default. CAISO believes that additional clarity and strengthening the safeguards for accepting guarantees related to affiliate obligations is warranted.

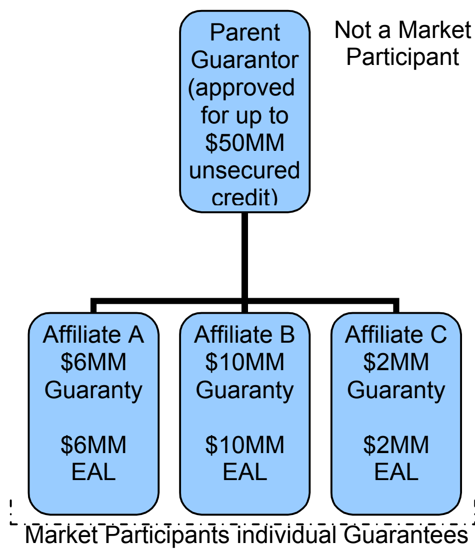
Practices of other ISOs/RTOs

ISO New England	Guaranties do not extend to all Affiliates
New York ISO	Guaranties do not extend to all Affiliates
Midwest ISO	Guaranties do not extend to all Affiliates
PJM	Guaranties do not extend to all Affiliates
Southwest Power Pool	Guaranties do not extend to all Affiliates
ERCOT	Guaranties do not extend to all Affiliates

Discussion of Potential Alternatives under Consideration

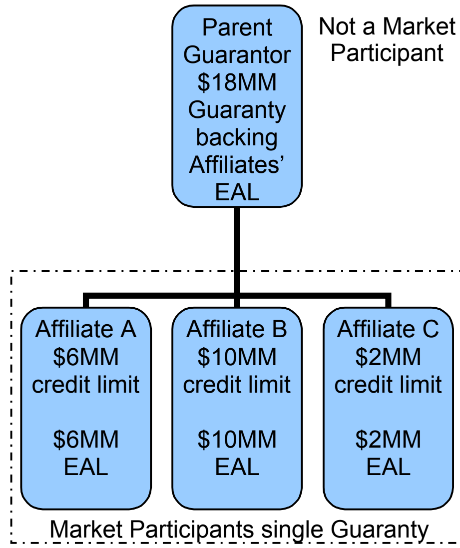
Alternative 1: Require Guarantors who back one of their Affiliates participating in the CAISO market to back all of their Affiliates participating in the CAISO market.

The CAISO often accepts a corporate Guaranty from a corporate parent or other affiliate to cover the Estimated Aggregated Liability (EAL) of a Market Participant. To date, CAISO has permitted such a guarantor to identify specific and different maximum amounts of credit backing for its Affiliates based on the anticipated EAL of each affiliate Market Participant. As an example, assume Affiliate A has an EAL of $6 million, Affiliate B has an EAL of $10 million and Affiliate C has an EAL of $2 million. Today, the CAISO would permit the corporate parent to provide separate guarantees (if it qualified for unsecured credit) capping its liability to $6 million for Affiliate A, $10 million to Affiliate B and $2 million to Affiliate C. It may be prudent to reconsider this policy with the addition of CRRs to the CAISO market, and given PJM FTR market defaults, where an entity with multiple affiliates failed to provide adequate credit support for one affiliate, leading to defaults that affected all PJM market participants.



A measure that may in some instances reduce such potential exposure to CAISO market participants would be to require a corporate parent to provide a Guaranty that was not limited to a single Affiliate if multiple Affiliates participated in the CAISO market. In the above example, this would mean that CAISO would require that a single Guaranty be established for a total of $18 million which could then be used entirely to cover the default of a single Affiliate, if necessary. This change may help reduce the default risk of thinly capitalized limited liability corporations participating in the CAISO markets and would help discourage the creation of such entities for purposes of shifting default risk onto other Market Participants, as many believe happened in the FTR defaults at PJM.

CAISO's credit systems require a single credit limit per Market Participant. Continuing with the above example, the credit limit for Affiliate A would be recorded in CAISO's credit system at $6 million, the credit limit for Affiliate B would be recorded at $10 million and the credit limit for Affiliate C would be recorded at $2 million. Calls for additional collateral would then be made if any of those Market Participant's liabilities reached those amounts. Assuming there was a single guaranty in place for $18 million that named all three Market Participants, the parties (CAISO, Market Participants and guarantor) could agree to reallocate unused capacity from the Guaranty to the another Market Participant and CAISO would update the $6 million, $10 million and $2 million limits in the CAISO credit system, or, if there was no additional unused capacity in the guaranty, the guarantor would need to increase the guaranty or post another form of Financial Security.



In the event of a payment default by either Affiliate A, Affiliate B or Affiliate C, CAISO would have be able to pursue the guarantor for the amount of the default, up to the full amount of the Guaranty, even if the EAL estimate CAISO used to monitor credit adequacy prior to the default was inaccurate. Given the potential volatility and inherent difficulties in valuing CRRs for credit purposes, this could result in decreased risk of losses being allocated to other market participants.

Even though this so called “blanket” Guaranty could mitigate some risk of an Affiliate defaulting, the potential of default risk remains if there no remaining credit capacity available (i.e. the obligations of all the supported entities in the CAISO market exceed the guarantee). Also, a parent guarantor will have to evaluate the risk of a “blanket” Guaranty compared to other forms of collateral that have an associated carrying cost. Finally, questions have been raised as to whether this concept presents regulatory issues for non-regulated parents backing regulated and non-regulated affiliates. This potential issue will have to be explored further during the stakeholder process.

Proposed Credit Policy Enhancement

CAISO proposes drafting a Form Guaranty that requires a Guarantor backing the activities of one Affiliate to back all Affiliates participating in the CAISO market under the same Guaranty. The Guaranty must have a limit sufficient to cover the aggregate Estimated Aggregate Liabilities of all of the Affiliates regardless of individual credit limits the Guarantor may wish to assign in the CAISO credit management system and a provision that CAISO has the authority to reallocate individual Affiliate credit limits in the credit management system up to the Guaranty limit, to cover a potential call to an individual Affiliate for additional Financial Security. Should there be insufficient credit capacity to reallocate credit limits among the Affiliated entities, the Guarantor would be asked to increase the Guaranty limit, or if they are not approved for a higher Guaranty limit, to post another form of Financial Security.

Tariff and BPM Implications

CASIO Tariff §§12.1.1.4, potentially new section in 12.1.2
BPM for Credit Management §§5.4, potential new section
CAISO Form Guaranty will have to be expanded to include appropriate language

5 Alternative Credit Risk Mitigation Strategies

A number of additional credit risk mitigation strategies have been (or are currently being) evaluated by the CAISO. From time to time Market Participants ask CAISO to evaluate other strategies to reduce credit requirements and/or to mitigate the risk of payment default.

CAISO has not yet taken position on many of these matters but includes them here for stakeholder discussion as to the pros and cons of each.

5.1 Reducing the Time Allowed to Post Additional Financial Security

Current Policy

Section 12.4.1 of the CAISO Tariff states:

> A Market Participant has five (5) Business Days to resolve a CAISO request for additional Financial Security.

Issue

Having five (5) Business Days to resolve a collateral call given the nature of the obligations currently in Estimated Aggregate Liability calculation may be appropriate. However, with the additional volatility that may be introduced with to the Estimated Aggregate Liability calculation with Congestion Revenue Rights, new forms of inter-SC trades and trading in the Day Ahead market, it may be appropriate to tighten this timeframe. Because of the nature of these transactions, the need for additional Financial Security may fluctuate to an even greater degree on a day-to-day basis. As a result, a Market Participant's collateral requirements could continue to increase substantially during the five (5) Business Days to respond to a CAISO request for additional Financial Security. In light of this, it would appear to be prudent to shorten the period of time to resolve a request for additional Financial Security.
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Practices of other ISOs/RTOs

ISO New England	Two (2) business day cure period for collateral calls.
New York ISO	Three (3) business day cure period for collateral calls.
Midwest ISO	Two (2) business day cure period for collateral calls.
PJM	Two (2) business day cure period for collateral calls. A proposal was considered to change to one (1) business day.
Southwest Power Pool	Ten (10) business day cure period for collateral calls.
ERCOT	Two (2) business day cure period for collateral calls.

Discussion of Potential Alternatives under Consideration

<u>Alternative 1</u>: Reduce the number of business days to satisfy a request for additional Financial Security to three (3) business days, moving closer to the practice of the majority of peer ISOs/RTOs. Even under this proposal, a Market Participant could potentially be under secured for up to five (5) to seven (7) calendar days based on a request made prior to a holiday weekend.

<u>Alternative 2</u>: Retain the current policy of five (5) business days to satisfy a request to post additional Financial Security.

Proposed Credit Policy Enhancement

Market Participants and CAISO agree that internal processes and systems for determining liability changes that may impact a Market Participant's available credit are required to enhance CAISO's visibility of the T+7B day "blind spot" in the EAL calculation. Having the ability to make a Financial

Security call earlier does not make sense if Market Participants can continue to accrue large liabilities during a long cure period. CASIO also recognizes that certain Financial Security instruments such as a Letter of Credit may require a lead time of a day or two. Accordingly, CAISO would propose that the cure period for satisfying a Financial Security call be no more than three (3) Business Days.

Tariff and BPM Implications

CASIO Tariff §§12.4, 12.4.1, 12.4.2
BPM for Credit Management §§9.1, 10.2

5.2 Funding a Reserve Account or Establishing an Alternative Credit Facility to Mitigate the Risk of Future Payment Defaults

Current Policy

In case of payment default, CAISO would first look to recover the amount of the default by any posted collateral. Any excess amounts would be recovered by short paying creditors/suppliers for the month in which the default occurred.

Issue

There is currently no facility, beyond posted collateral, that CAISO can draw on prior to short-paying market creditors in the event of a payment default by a Market Participant. The CAISO Tariff currently provides for a market reserve account but there is currently no continuing mechanism in place to fund it. CAISO believes consideration of a mechanism to fund the Market Reserve Account warrants consideration. If the Reserve Account was funded in a routine basis to generate a reasonable balance in the account, proceeds from the account would be available to cover small to medium size defaults, thereby avoiding the market disruption and loss of confidence that may occur if such defaults were immediately borne by suppliers in the month of the default.

Practices of other ISOs/RTOs

ISO New England	Maintains a maximum of $500,000 late payment penalty fund and a $4,000,000 line of credit that may be used to offset payment defaults. Members are assessed a pro rata portion of any default in excess of the line of credit.
New York ISO	Has a $50 million working capital fund for future payment defaults established via tariff charges to market participants based on activity volumes. This fund is used for short-term liquidity to clear the market after a payment default. A line of credit is available for defaults exceeding the $50 million working capital fund.
Midwest ISO	Does not have a reserve for future payment defaults.
PJM	Does not have a reserve for future payment defaults. Currently evaluating the use of a line-of-credit, or similar facility, to provide bridging finance for near-term shortfalls (to a reasonable limit). Also exploring the creation of an escalating guarantee structure, including residual funds currently being held, **a guarantee fund contributed to by the members** and default insurance where socialization of a default to members would be the last step in the structure.
Southwest Power Pool	Does not have a reserve for future payment defaults.
ERCOT	Does not have a reserve for future payment defaults.

Discussion of Potential Alternatives under Consideration

<u>Alternative 1</u>: Market Funded Reserve Account

The Reserve Account currently specified by the Tariff could be funded to provide a second level of protection for payment default (any available collateral being the first level of protection). The account could be funded through a monthly charge until a preset funding level is achieved – at which time funding would cease. Should a payment default occur, CAISO would offset the default by first offsetting the default amount using the defaulting parties' collateral; then offsetting as much of the remaining balance using funds from the reserve account; and, finally, socializing the remaining balance according to CAISO policy for socializing payment defaults. Should the balance of the reserve account fall below the preset funding level, the monthly charge would resume until the preset funding level is achieved.

Pros	Cons
– Losses are absorbed to the extent of the fund – smoothes member balance sheets – Funds are in place to specifically finance losses – Theoretically less expensive than insurance in the long-term – Not subject to increases and decreases in annual costs as with insurance when credit markets tighten and loosen – The impact of a default is managed and the costs spread over time thus minimizing the impact on a given month's creditors – Increased confidence of suppliers leads to decreased credit risk premiums and additional supply in CAISO markets – Buyers have an interest in establishing strong credit standards as they will bear some of the risk of a loss through the assessment mechanism – Satisfies FERC's November 2004 credit policy statement that ISOs consider credit insurance and other risk transfer mechanisms	– Fund balance would not cover large defaults – – Members may wish to accept risk of loss rather that contribute on an ongoing basis for a potential future event – More costly to members in the short term vs. insurance – Contributions not returned when members leave CAISO with the simplest to administer proposal – New members may reap benefits of a fund paid for by others – Tax implications / treatment uncertain, but contributions may not be deductible for Market Participants – Additional administrative effort to ensure funding level is maintained

Important considerations that must be taken into account should this alternative be adopted are the appropriate funding level and the mechanism under which the account would be funded. Potential means for funding the Reserve Account could include any of the following assessment mechanisms:

- Based on gross control area load (billing determinant for GMC-ETS-energy)
- Based on dollar values of total monthly settlement statement
- x cents per unit based on billing determinants of all GMC charge types
- Using the dollar value of GMC charges

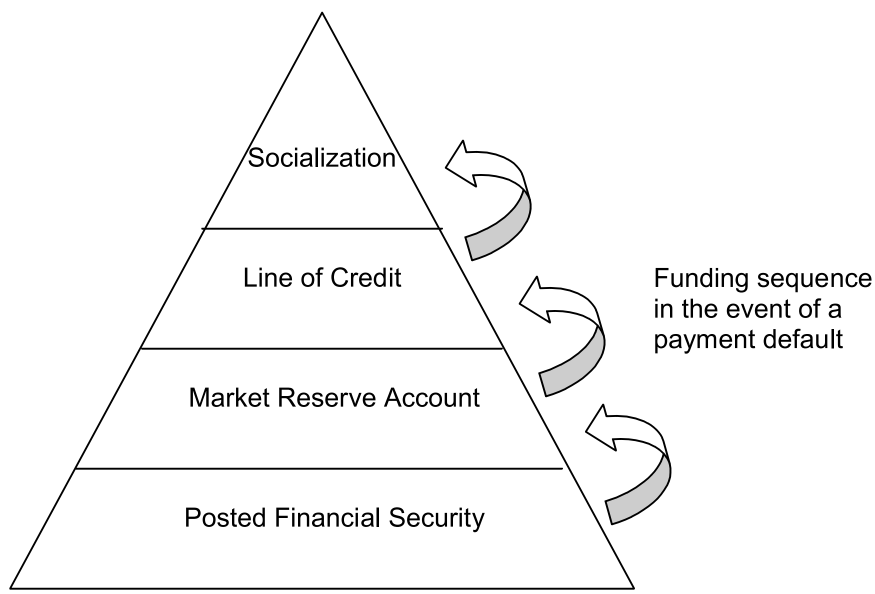
Additional means to fund a reserve account could include potential penalties for late payments (see Section 5.6 of this paper). A significant drawback for using this mechanism as the sole funding source is the time it would take to build up an adequate reserve for funding a payment default.

Alternative 2: Line of Credit

CAISO establishes a line of credit or similar credit facility on behalf of all Market Participants that it could draw on to provide temporary funding shortfalls of a reasonable limit. This alternative would require a mechanism be developed for Market Participants to be allocated a proportional cost of procuring the line of credit as well as a mechanism for repaying it if it is ever drawn down.

Pros	Cons
– Losses beyond the limit of the Market Reserve account are absorbed to the extent of the line of credit before passing excess charges to the Market Participants – Relatively low cost option – Initial setup costs are known	– Fund balance may be inadequate to fund all losses – Finance exposure to replenishing account cannot be eliminated

Alternative 3: A combination of Alternatives 1 and 2 in creating a tiered risk mitigation structure as depicted in the following:



Alternative 4: Do not pursue a reserve account or line of credit at this time.

Proposed Credit Policy Enhancement

Alternative 3 provides Market Participants additional levels of protection from a payment default by creating two additional layers of funding sources between Financial Security and socialization. CAISO is cognizant of the opportunity costs to Market Participants of implementing such a program. However, Market Participants may deem those costs appropriate to reduce the risk of a socialized default.

The CAISO believes Alternative 3 has merit but will look to the Market Participants for input as to how to structure, fund and administer a multi-tiered program to protect Market Participants from payment defaults by other Market Participants.

Any of these alternatives would likely have Settlements implications as a result of defining a new funding mechanism and, as a result, its implementation would be subject to Settlement's change management process.

Tariff and BPM Implications

CASIO Tariff – New section(s)
BPM for Credit Management – New section(s)

5.3 Procuring Credit Insurance or another Financial Instrument to Mitigate the Risk of Future Payment Defaults

Current Policy

In case of payment default, CAISO would first look to offset the amount of the default with any collateral posted by the defaulting market participant. Currently, apart from any available funds in the Reserve Account, any remaining shortfall amounts would be shared on a pro-rata basis by Market Participants who are net creditors for the month of the market default. There is currently no substantive facility, beyond posted collateral, that CAISO can draw on prior to socializing the loss among Market Participants.

Issue

CAISO currently does not use credit insurance or any other financial instrument to mitigate the consequences of a future payment default. A significant loss could damage confidence in the ISO markets, resulting in a reduced supply (particularly by out of state entities) and higher prices. CAISO investigated the use of credit insurance in 2005/2006, but did not conclude that the benefits (given coverage limitations and exclusions) outweighed the costs, and had not determined an appropriate cost recovery mechanism. Since that time there have been additional defaults in ISO/RTO markets with significant impacts to market participant confidence in those markets, leading CAISO staff to believe it is worthwhile to reconsider credit insurance at this time.

Practices of other ISOs/RTOs

ISO New England	Since 2002, has had "traditional" credit insurance for members named by the carrier. The limit of the coverage is $80 million with an $800,000 deductible. The policy is payable in the event of member bankruptcies and protracted defaults.
New York ISO	Does not currently retain any credit insurance to reduce potential socialized default charges. Had credit insurance until 2004 after which the policy was not renewed because of members' concerns about the cost effectiveness of insuring only the best credit risks.
Midwest ISO	Does not retain any credit insurance to reduce potential socialized default charges.
PJM	Does not retain any credit insurance to reduce potential socialized default charges. Also exploring the creation of an escalating guarantee structure, including residual funds currently being held, a guarantee fund contributed to by the members and **default insurance** where socialization of a default to members would be the last step in the structure.
Southwest Power Pool	Does not retain any credit insurance to reduce potential socialized default charges.
ERCOT	Does not retain any credit insurance to reduce potential socialized default charges.

Discussion of Potential Alternatives under Consideration

CAISO investigated credit insurance three years ago where it solicited proposals from companies offering credit insurance in the Energy industry. CAISO's findings at that time was that the coverage was relatively expensive for coverage that only applied to entities with the highest credit ratings – those entities least likely to default. In light of recent events in credit markets and the PJM FTR market defaults, Market Participants continue to express a desire that CAISO consider the use of credit insurance as a means to mitigate the consequences of market default. PJM, as part of a credit policy review in response to the defaults, has recently concluded an analysis of credit insurance as well as other financial risk alternatives including establishing/utilizing a captive insurance company, creating a blended finite risk program and utilizing a capital market transfer structure. Each of these alternatives is presented in the following sections with a brief description of the alternative as well as potential pros and cons of each.

Alternative 1: Credit Insurance

Risk is transferred to an insurer for a fee (premium). As a general rule, credit insurers do not expect to suffer significant losses, although they understand that unusual losses may occur from time to time.

Some policies cover a large portfolio of risk, i.e., all or a majority of participants / obligors. The premium rate for a portfolio of risk can vary from 5 basis points to 40 basis points per annum (or more), depending on loss history, risk profile, size of portfolio, etc. The rate is applied against the annual insurable sales/revenue volume to arrive at the annual premium payable.

Other options are policies that will cover "key risks" or "top risks", i.e. generally specific entities representing the largest exposures. Pricing is a reflection of the creditworthiness of the specific names; the most advantageous pricing is provided for portfolios where the named companies covered have investment grade credit ratings of BBB- or better.

Coverage is triggered by actual bankruptcy or protracted non-payment, but may only cover exposure of 60 or 90 days transactions. Some insurers will provide policies with limits that are non-cancelable for the policy period; other insurers have the right to withdraw coverage for any covered entities at any time (upon withdrawal of coverage, additional obligations incurred bythat market participant would not be covered). Due to the volatility of, and length of the commitments associated with the FTR markets, the FTR credit risk is most likely un-insurable; even in a best-case scenario, if insurance was available, coverage would be limited to 60 or 90 days of exposure.

Pros	Cons
– Risk is transferred to another entity – Financing costs are predictable and tied to activity	– Can be costly – Coverage is narrow and can be voided – not a sure thing – Payment of claims is likely delayed and will not serve to balance markets promptly, if necessary – Current "credit crisis" is raising premium charges and underwriting standards – The most cost-effective coverage usually is extended to entities with low risk of default – Limits purchased may not be adequate to cover loss

If this is an option that Market Participants feel is worth exploring, CAISO will obtain a quote and indicative terms for credit insurance and share this information when available.

Alternative 2: Establish / Utilize a Captive Insurance Company

The basic concept of a utilizing a "Captive" insurance company to finance risk is the placement of funds (premiums) in a suitably capitalized legal entity that are used to pay otherwise insurable losses. Captives can only be domiciled in specific locations (generally off shore or certain US States) and are closely scrutinized by regulators and taxing entities. Captives can also serve as a vehicle to access reinsurance markets. The captive's ability to pay loss is subject to the capital within the captive and any re-insurance purchased by the captive.

Pros	Cons
– A pre-loss fund may be established if there are no losses for a period of time. – There may be opportunity to characterize payments to the captive as premium (favorable tax treatment)	– Start up (new subsidiary established) and operating costs – A third party is necessary to manage the captive company – Questionable if contributions to captive are truly risk transfer – tax implications – Re-insurance may not exist to be purchased as required – or may be expensive – Funds in the captive may not be adequate to address cover the loss – Capitalization cost may be excessive – Contributions not returned when members leave CAISO – New members may reap benefits of a fund paid for by others

This alternative has been reviewed by PJM and its stakeholders in respond to the FTR defaults.

Alternative 3: Blended Finite Risk Program

Blended Finite Risk combines loss funding with an element of risk transfer under the umbrella of an insurance policy. An example would be $50 million coverage in exchange for an annual payment of $4.5 million for 10 years. If a full limits loss was incurred and paid prior to the 10 year payment period – during the 2nd year for example – payments for the original protection would continue and would be escalated in the ensuing years. If there are no losses after the period of contribution, (10 years in this example), a significant portion of the premiums are returned to the insured. These programs are under intense scrutiny by regulators, and efforts to gain tax advantages have landed certain involved executives in jail. PJM, therefore, sees this option as non-viable at this time.

Pros	Cons
– A set limit is available immediately to fund losses – Payments "may" be considered premium (favorable tax treatment) – Return of funds if no loss occurs	– If a loss occurs in the early stages of the program, the fund is exhausted and liability remains for the prior loss. – These programs are generally viewed as "deposit accounts"

As noted, this alternative has also been reviewed by PJM and its stakeholders in response to the FTR defaults.

Alternative 4: Capital Market Transfer (a form of factoring???)

This alternative has also been considered by PJM and stakeholders in response to the FTR defaults.

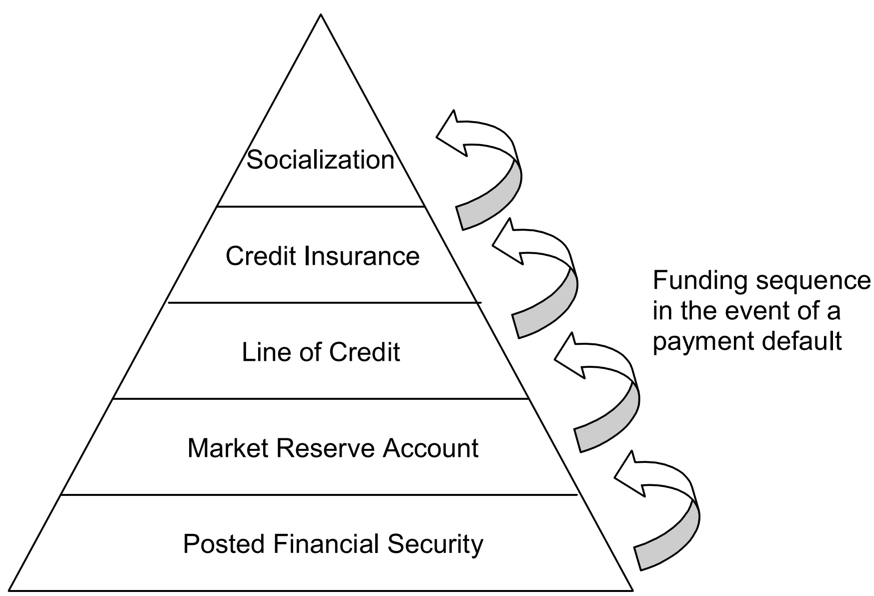
This is a program where the credit risk of all ISO/RTO members is pooled together and tranched (layered) based on various probabilities of default / credit quality (e.g., AAA, BBB etc). The investment grade tranches (layers) are then transferred to capital market participant such as banks, insurance companies, hedge funds and high net worth individuals with reference to the prevailing bond market rates for the respective credit quality. Depending on the underlying exposure, discounts to the prevailing bond market rates may be achieved. The non-investment grade tranches (layers) are normally retained by members (joint and several). Such retention may be pre-funded by charged premiums or post funded by contributions.

Pros	Cons
– Serves both as a risk funding and transfer mechanism	– Complex credit simulation model required to quantify portfolio defaults and structure tranches (layers) – Payment only in the event of bankruptcy of a participant – Payments may or may not be deductible as “premium expense” depending on structure – Complexity requires expert guidance to establish and administer – Longevity concerns – Costly to establish and manage – Possible liability to investors for error or omission

<u>Alternative 5</u>: Do not pursue any of the listed alternatives at this time.

Proposed Credit Policy Enhancement

Building off of the tiered funding model presented in the previous section, credit insurance or a similar instrument could provide an additional tier of protection, and the last level of defense, against a socialized default as depicted in the following:



Developing a tiered funding approach of this type could potentially extend the coverage limits and reduce the cost of credit insurance. It should be noted that CAISO is not in position at this time to say with certainty what the effect on costs, coverage and risk of such tiering would provide. Only after developing the program more fully and working with credit insurance providers can the parameters, advantages and shortcomings be known.

CAISO is open to further researching the use of credit insurance or a similar instrument. At this time, CAISO has no specific recommendation and raises this matter for additional stakeholder consideration. Tariff and BPM changes would have to cover topics such as how costs of the program would be paid, actions to be taken by CAISO in the event of a default, etc.

Tariff and BPM Implications

CASIO Tariff – New section(s).

BPM for Credit Management – New section(s)

5.4 Redefining the Loss Sharing/Chargeback Mechanism When a Payment Default Occurs

Current Policy

Currently, in the event of a payment default by a debtor to the CAISO market, all net creditors of the market for the month in which the payment default took place would be short-paid.. For example, if CAISO sends out invoices for a month totaling $100 and collects only $90, then net creditors in that month will be paid 90% of what they are owed. GMC payments and FERC fees have a priority claim on any market revenues and will be paid first from any amounts collected. In the event of a default, CAISO would submit documentation to those Market Participants that were short paid of who the defaulting party was, and debtors could take collection actions against the defaulting party.

Issue

Unlike most of CAISO's peers, CAISO does not have a charge back mechanism where all Market Participants in a trade month would be assessed a pro-rata portion of a payment default through a supplemental billing. Some CAISO Market Participants (suppliers) have questioned this policy and are reevaluating their participation in CAISO's market in light of the PJM defaults.

Practices of other ISOs/RTOs

ISO New England	Socializes payment defaults, pro rata based, across the entire membership.
New York ISO	Socializes payment defaults as a proportion of gross accounts receivable and gross accounts payable.
Midwest ISO	Socializes uncollectible obligations to all participants invoiced in the same period as the unpaid invoice (Allocated according to a ratio share of gross charges and credits). The socialized amount is determined by taking the absolute value of a member's debits and credits during the default month and allocates the default on a proportional basis based on the absolute value of all debits and credits for the default month.
PJM	Socializes payment defaults to all members who traded in PJM markets during the period for which the default has occurred-both buyers and sellers.
Southwest Power Pool	Socializes payment defaults, pro rata based, across the entire membership.
ERCOT	Socializes payment defaults, pro rata based, across the entire membership.

Discussion of Potential Alternatives under Consideration

Alternative 1: Modify the current methodology for socializing defaults to be consistent with other ISOs/RTOs by assessing a portion of the default to buyers as well as suppliers in the month of the default through a charge back mechanism in a manner consistent with the other ISOs/RTOs.

Alternative 2: Maintain the current methodology of socializing defaults only to the net creditors for a given month.

Proposed Credit Policy Enhancement

CAISO believes the current system of short paying net suppliers to the market creates a disincentive for suppliers to participate in the CAISO market. In addition, it requires suppliers to take a disproportionate share of the risk in participating in the CAISO market. A charge back mechanism in the event of a payment default would provide encourage all market participants to support strong credit standards for all market participants.

CAISO believes there are merits to changing the default allocation methodology to allocate payment defaults to all market participants in the month of default, on a pro-rata basis through a supplemental billing. However, CAISO recognizes the significance of this potential change, and particularly invites stakeholder views on this topic. Such a change, if implemented, would have a significant impact as it would require a reconfiguration of SaMC.

Tariff and BPM Implications

CASIO Tariff §§11.12 through 11.16, 11.19, 11.20
BPM for Credit Management – New section(s)

5.5 Calculating Available Credit for CRR Auctions

Current Policy

CAISO currently permits all Available Credit to be used in a CRR auction. The current definition of Available Credit is Aggregate Credit Limit less Estimated Aggregate Liability where Aggregate Credit Limit is defined as the sum of a Market Participant's Unsecured Credit Limit and its Financial Security Amount.

Issue

Prior to a CRR auction, an auction participant must know their Available Credit before they can inform CAISO of the amount of collateral they wish to use as their bid limit in the auction. Using 100% of Available Credit immediately increases the Estimated Aggregate Liability beyond the 90% threshold at which CAISO requests additional collateral. It is necessary to address the conflicting policies related to Available Credit for the CRR auction and general credit collateral utilization posting requirements.

Practices of other ISOs/RTOs

ISO New England	Relevant information unavailable.
New York ISO	Relevant information unavailable.
Midwest ISO	Relevant information unavailable.
PJM	A FTR Credit is equal to the collateral it posts plus the unused portion of any unsecured credit allowance.
Southwest Power Pool	Does not offer financial transmission rights
ERCOT	A CRR Account Holder's CRR Auction credit limit is equal to the lesser of the CRR Account Holder's Credit Limit, or, if provided, the CRR Account Holder's self-imposed credit limit.

Discussion of Potential Alternatives under Consideration

Alternative 1: Limit the amount of Available Credit for a CRR Auction to ensure that the 90% threshold for an additional call for Financial Security is not exceeded.

Alternative 2: Maintain the current policy that 100% of Available Credit is available for a CRR Auction.

Proposed Credit Policy Enhancement

Many CRR Auction participants already recognize the potential of limiting other market activities if they assign 100% of their Available Credit to the CRR Auction and will choose to assign a lesser amount of their Available Credit as the CRR auction bid limit. By stating the requirement that to participate in the CAISO market, a Market Participant must maintain sufficient collateral that meets or exceeds their Estimated Aggregate Liabilities, the CAISO Tariff is clear that 100% of a Market Participant's Financial Security is available to them to collateralize market activities. As a practical matter, the 90% threshold was established to ensure that a Market Participant had sufficient notice and lead-time to respond to a collateral call before their Available Credit was exhausted and which could subject the market participant to CAISO enforcement actions such as rejection of schedules. With the potential volatility in day-to-day CRR valuations and other market activities such as inter-SC trades and trading in the Day Ahead market that could quickly consume a Market Participant's Available Credit, CAISO believes it prudent to leave a reasonable cushion in the amount of Available Credit, and accordingly, limiting the amount that would be assigned as the bid limit for the CRR auction.

Under current CAISO policy, allowing 100% of Available Credit to be used for a CRR Auction would immediately trigger a request for additional Financial Security. Doing so would result in a CRR Auction participant to continually have to post additional Financial Security with each new auction. CAISO could suspend making a call for additional Financial Security until such time that the auction awards are made and some of the Financial Security is released but this extends the time that a Market Participant is potentially under-secured. This may unduly increase the risk to the rest of the market that an individual Market Participant could easily exceed 100% of their Available Credit during this extended period waiting for the CRR Auction to conclude and awards made because of liabilities the Market Participant could be incurring during this period.

For these reasons, CAISO recommends redefining the definition of Available Credit to limit it to the 90% threshold as proposed in Alternative 1. Any change to this area was not part of the SaMC design. If this requirement is to be included in that design, it would require reconfiguration of both SaMC and NEXANT software as well as interface design.

Tariff and BPM Implications

CASIO Tariff §§12.4, 12.6.2
BPM for Credit Management §§1.3, 7.1, 7.4.2, 9.1

5.6 Establishing Financial Penalties for Late Payments

Current Policy

Section 11.12.1 of the CAISO Tariff states

> If a Scheduling Coordinator becomes aware that a payment for which it is responsible will not be remitted to the ISO Clearing Account on time, it shall immediately notify the ISO of the fact and the reason for the non-payment. If the Scheduling Coordinator fails to pay any sum to the ISO when due and the ISO is unable to enforce the Security (if any) provided by the defaulting Scheduling Coordinator, the Scheduling Coordinator shall pay interest on the overdue amount for the period from the Payment Date to the date on which the payment is remitted to the ISO Clearing Account, together with any related transaction costs incurred by the ISO. The ISO shall apply all such Interest payments on the Default Amount on a pro rata basis to ISO Creditors in relation to amounts past due in the order of the creation of such debts.

Issue

Section 11.12.1 of the CAISO Tariff currently provides CAISO the authority to assess, collect and disburse interest. However, the assessment of interest on past due amounts has not proven to be a sufficient deterrent on late payments.

In April 2005, CAISO developed a whitepaper (presented to the Board in June 2005) entitled "SC Credit Policy: Proposed Changes" which included a provision to establish penalties for late payments. This concept was not proposed for implementation because it would have required changes to the market clearing/settlements system that would not be available until the new SaMC system was in place with the release of MRTU, and, accordingly, it was deferred for later consideration as part of the "Phase II" credit system enhancements. However, in lieu of that proposal, an alternate enforcement mechanism was implemented that provided for a "progressive discipline" process; that is, a process that included a warning letter for a first and second late payment during a 12 month period, with the third late payment resulting in the revocation of (some or all) of a market participant's Unsecured Credit Limit (when implemented in 2005, the "Approved Credit Rating" designation was still in effect). In connection with this enforcement program, a late Payment letter was drafted, approved internally, and sent to late payers during 2005. The program was not continued due to internal staffing constraints, and at least for some period, improved compliance with the payment deadlines resulting from the initial letters.

Increasingly, however, Market Participants have missed the 10 a.m. Pacific cutoff for remitting amounts owed to the CAISO Clearing Account as required by the CAISO Tariff. This has made it challenging to effectively and efficiently settle the market by the 2:00 p.m. cutoff. Having financial incentives in place other than relatively small interest charges may provide the appropriate incentive for Market Participants to pay their invoices on time.

Practices of other ISOs/RTOs

ISO New England	Interest on delinquent amounts will be calculated from the due date of the bill to the date of payment. If a member pays late two or more times in a 12 month period, the member must pay the greater of 2% of the invoiced amount or $1,000. Interest earned on late payments is paid pro rata to members owed the payments. No other penalties are assessed for late payments.
New York ISO	Currently does not assess interest or penalties for late payments.
Midwest ISO	Currently does not assess interest or penalties for late payments. However, if a member pays late twice in a 12 month period, a provision exists that requires the member to post additional collateral equal to the highest invoiced amount during the preceding 12 month period.
PJM	Interest on delinquent amounts will be calculated from the due date of the bill to the date of payment. No other penalties are assessed for late payments.
Southwest Power Pool	Unknown
ERCOT	Does not assess interest. Defaulting members must pay a late fee (penalty) on payment defaults. Late fees are distributed to those members owed the late payments and are based on ERCOT's fee schedule.

Discussion of Potential Alternatives under Consideration

Alternative 1: In addition to interest on delinquent amounts as provided for in Section 11.12.1 of the CAISO Tariff, a Market Participant who pays late two or more times in a rolling 12 month period will be assessed a monetary penalty of the greater of 2% of the invoiced amount or $1,000 but not to exceed $10,000 in any given month. Any penalties assessed as part of this credit policy enhancement would fund the Market Reserve Account proposed in Section 5.2 of this paper.

Alternative 2: In addition to the interest and penalties described in Alternative 1, Market Participants who are late in paying a third time in a rolling 12 month period will have their Unsecured Credit Limit reduced to zero and must post cash in lieu of unsecured credit or any other form of Financial Security to secure their obligations for a period of 12 months of timely payments.

Alternative 3: Other than interest payments, which are already provided for in the CAISO Tariff, do not penalize Market Participants for failing to pay invoices on time.

Proposed Credit Policy Enhancement

CAISO proposes reinstituting the progressive discipline program and induce compliance to timely payments by implementing Alternative 2.

The key elements of this revised process would include CAISO:

- Monitoring SCs missing the payment deadline, regardless of amount owed, during a rolling 12-month period based on CAISO's published late payment report;
- Assessing interest based on the number of days the invoice is past due and distributing the interest to net creditors in the case of an actual payment default or funding the Market Reserve Account as proposed in Section 5.2 of this paper if the late payment does not lead to a default;
- Sending a delinquent SC two warning letters for the first two instances of missing the payment deadline;

- Requiring a delinquent SC to post cash in the form of a prepayment in lieu of other forms of Financial Security upon the third instance of a late payment for a period no less than 12 months following the late payment. Subsequent late payments would result in extending the number of months that a delinquent SC would have to post cash and could result in other enforcement actions as described in the CAISO Tariff;
- Revoking (in full or in part) a delinquent SCs Unsecured Credit Limit, if any, during the period that cash postings are required; and
- Accepting other forms of Financial Security and evaluating reinstating a UCL only upon completing 12 months of on-time payments.

This change is anticipated to have a material impact to SaMC in that it would require a new Charge Code configuration as well as reconfiguration of existing Charge Codes.

Tariff and BPM Implications

CASIO Tariff §11.12.1
BPM for Credit Management – New section(s)

5.7 Establishing Financial Penalties for Failure to Respond to Calls for Additional Financial Security within the Specified Timeframe

Current Policy

Section 12.4.1 of the CAISO Tariff states:

> A Market Participant has five (5) Business Days to resolve a CAISO request for additional Financial Security.

Section 12.4.1 also indicates:

> If the CAISO and the Market Participant are unable to agree on the appropriate level of Financial Security during the five (5) 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.

Issue

Currently, there is no Tariff authority to assess financial penalties for failure to post additional Financial Security when requested.

For the most part, Market Participants are very responsive to calls for additional Financial Security. However, there are times where CAISO's receipt of an acceptable form of Financial Security can extend well beyond the five day period. During this period, a Market Participant may be significantly under-secured and could continue to incur significant additional liabilities.

Practices of other ISOs/RTOs

ISO New England	If a member fails to post additional collateral within the cure period five (5) or more times in a rolling 12 month period, the member is assessed a nominal $1,000 penalty for each instance in excess of five (5).
New York ISO	No mechanism for assessing penalties currently exists for posting additional collateral after the cure period.
Midwest ISO	No mechanism for assessing penalties currently exists for posting additional collateral after the cure period.
PJM	No mechanism exists in the event of not satisfying a collateral call within the cure period.
Southwest Power Pool	Unknown
ERCOT	No mechanism exists in the event of not satisfying a collateral call within the cure period.

Discussion of Potential Alternatives under Consideration

Alternative 1: Assess the Market Participant a nominal penalty of $1,000 on the third, and each subsequent occurrence in a rolling 12 month period, of failing to post additional Financial Security within the prescribed time period per Tariff Section 12.4.1. Any penalties assessed as part of this credit policy enhancement would fund the Market Reserve Account proposed in Section 5.2 of this paper.

Alternative 2: Assess the Market Participant the greater of 2% of the collateral amount or $1,000 (but not to exceed $10,000) on the third, and each subsequent occurrence in a rolling 12 month period, of failing to post additional Financial Security within the prescribed time period per Tariff Section 12.4.1. Any penalties assessed as part of this credit policy enhancement would fund the Market Reserve Account proposed in Section 5.2 of this paper.

Alternative 3: Do not penalize Market Participants for failing to respond to a call to post additional Financial Security.

Proposed Credit Policy Enhancement

It's not CAISO's desire to establish roadblocks or disincentives for participating in the CAISO market. However, the potential of Market Participants not responding to collateral calls because of a lack of incentive to do so can lead to significant market exposure. Although CAISO feels the ISO-NE model described in Alternative 1 may be a reasonable starting point, there may be merit in considering the stiffer penalties of Alternative 2.

This change is anticipated to have a material impact to SaMC in that it would require a new Charge Code configuration as well as reconfiguration of existing Charge Codes.

Tariff and BPM Implications

CASIO Tariff §11.12.1
BPM for Credit Management – New section(s)

6 Other Credit Related Concerns Raised by Stakeholders

CAISO has identified issues with the current credit policy and has taken the next steps of listing potential alternatives and a potential recommendation for each issue. CAISO has taken these subsequent steps beyond merely raising an issue for initial discussion (as is customarily done in the commencement of the standard stakeholder processes for many CAISO issues) because CAISO staff believe that several of the issues require that to provide a sufficient basis for stakeholder discussion. CAISO is not committed to any of the recommendations proposed in this paper, and is open to modifications of these recommendations and development of other alternatives for each issue.

Although CAISO believes the list of proposed credit policy enhancements described in this paper is quite comprehensive and will substantially improve the existing policy and further reduce Market Participant risk, stakeholders are also encouraged to raise other issues of concern related to credit and market clearing.