

# Proposed Credit Policy Enhancements

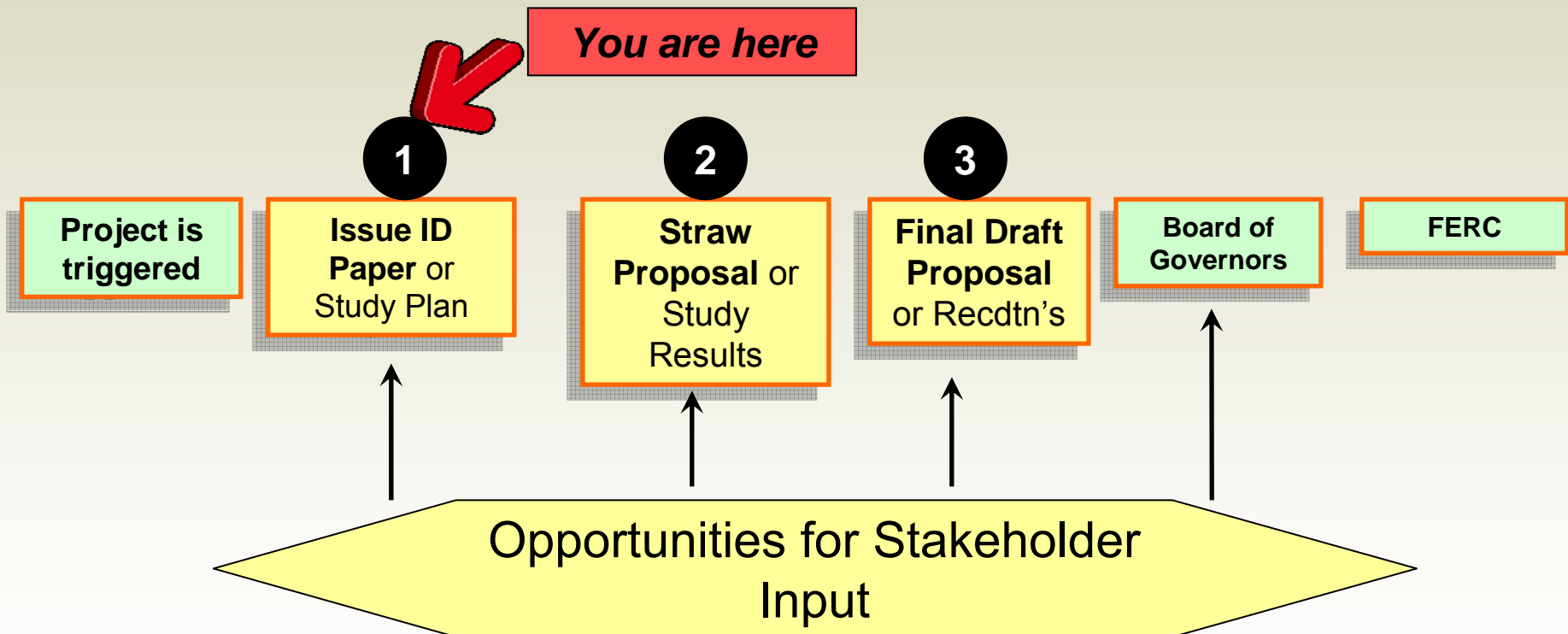
Kevin King

Senior Financial Analyst and Credit Manager

Credit Policy Enhancements Stakeholder Meeting

September 22, 2008

# The CAISO credit policy stakeholder process is comprised of the following steps



# Following is the agenda for today's meeting

TIME	TOPIC	PRESENTER
10:00 – 10:15	Welcome	C. Kirsten
10:15 – 12:00	Topic <ul style="list-style-type: none"><li>• Stakeholder process overview (15 minutes)</li><li>• Review proposed Unsecured Credit Limit enhancements (60 minutes)</li><li>• Review proposed Financial Security enhancements (30 minutes)</li></ul>	K. King
12:00 – 12:45	Lunch	
12:45 – 2:15	Topic <ul style="list-style-type: none"><li>• Review alternative credit risk mitigation strategies (90 minutes)</li></ul>	K. King
2:15 – 2:30	Break	
2:30 – 3:50	Topic <ul style="list-style-type: none"><li>• Continue review of alternative credit risk mitigation strategies (60 minutes)</li><li>• Discuss need for a Credit Working Group (20 minutes)</li></ul>	K. King
3:50 - 4:00	Wrap Up	C. Kirsten

# The objectives for today's meeting include

- Initiate an open dialog on proposed credit policy enhancements
- Identify stakeholders' other credit policy concerns
- Initiate a dialog on the merits of a Credit Working Group as the forum for discussing credit policy matters

# The timeline for this stakeholder process is fairly aggressive



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
<b>Conduct on-site stakeholder meeting (stakeholder meeting 1 of 3)</b>	<b>9/22/2008</b>
<b>Obtain stakeholder written comments resulting from on-site stakeholder meeting</b>	<b>10/7/2008</b>
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
<b>Conduct stakeholder conference call (stakeholder meeting 2 of 3)</b>	<b>10/28/2008</b>
Provide briefing to CAISO Board of Governors	
<b>Receive stakeholder written comments resulting from stakeholder conference call</b>	<b>11/4/2008</b>
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	<b>11/14/2008</b>
<b>Conduct final stakeholder conference call (stakeholder call 3 of 3)</b>	<b>11/18/2008</b>
<b>Receive stakeholder written comments resulting from stakeholder conference call</b>	<b>11/25/2008</b>
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

# The need for credit policy enhancements is driven by a number of factors

- Implementing CAISO's new credit policy in 2006 represented a dramatic change for the CAISO in how it assesses MP's creditworthiness and assigns unsecured credit
- Experience operating under the new policy and recent credit events during the past several months have led CAISO to review its existing policies and practices
- Credit events have also led Market Participants to request changes to minimize their perceived credit risk in transaction in the CAISO market

# CAISO proposes to modify how Unsecured Credit Limits are set

- Methodology for Determining the Percent of Tangible Net Worth or Net Assets to Assign
- Definition of Tangible Net Worth
- Maximum Unsecured Credit Limit

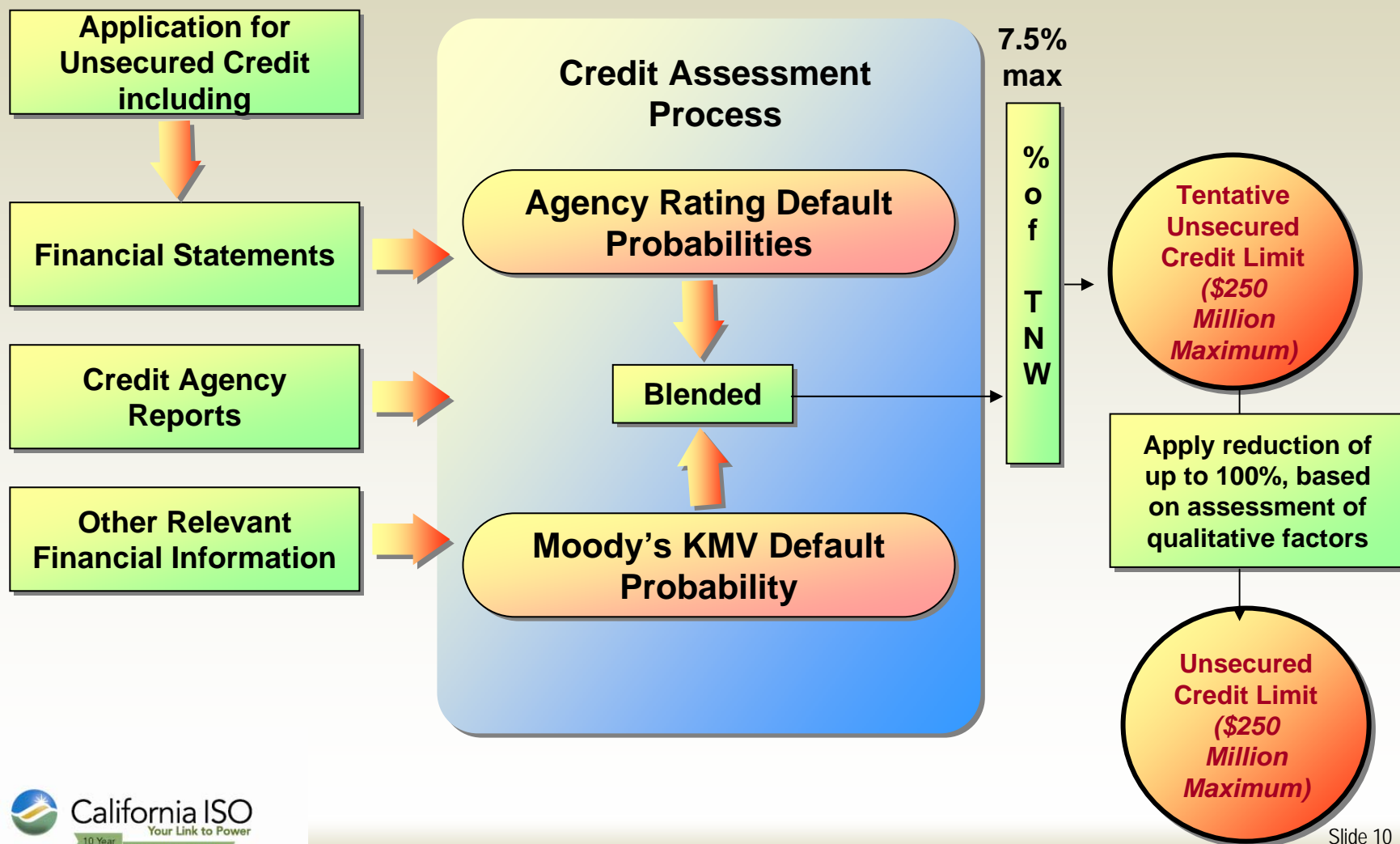
# **Methodology for Determining the Percent of Tangible Net Worth or Net Assets to Assign**



# CAISO's methodology for granting unsecured credit has evolved over the years

- Up until the new credit policy was introduced in 2006
  - Market Participants with an approved credit rating (i.e., short-term rating of A1/P1 or better or long-term A-/A3 or above) were granted unlimited credit
  - The methodology relied exclusively on agency credit ratings
  - There was no ability to reduce amount of credit based on qualitative factors or negative news
- Since 2006
  - The methodology blends Moody's KMV Estimated Default Probabilities and agency rating default probabilities
  - Provides for a maximum Unsecured Credit Limit of \$250 million
  - The methodology allows for reductions in unsecured credit based on qualitative factors

# The Existing Methodology Blends Agency Rating and Moody's KMV Default Probabilities



# The existing 8-step process is complex and inflexible

- Requires conversion of agency ratings to default probabilities
- Default probability values subject to change monthly
- No default probabilities for Fitch or DBRS
- Factors used to calculate Tangible Net Worth or Net Asset Percentage “hardcoded” in Tariff
- Data not widely available

CREDIT RATING DEFAULT PROBABILITIES (DP)					
Based on 5 year historical median of Moody's KMV EDF's					
(Indicative Table *)					
Maximum Allowable Percentage)			7.50%		
Base Default Probability			0.06%		
Moody's	5 Year Median Default Probability	Tangible Net Worth or Net Asset Percentage	S&P	5 Year Median Default Probability	Tangible Net Worth or Net Asset Percentage
Aaa	0.020%	7.50%	AAA	0.020%	7.50%
Aa1	0.032%	7.50%	AA+	0.033%	7.50%
Aa2	0.040%	7.50%	AA	0.042%	7.50%
Aa3	0.056%	7.50%	AA-	0.059%	7.50%
A1	0.080%	5.60%	A+	0.084%	5.38%
A2	0.114%	3.94%	A	0.119%	3.80%
A3	0.144%	3.12%	A-	0.154%	2.92%
Baa1	0.182%	2.47%	BBB+	0.200%	2.25%
Baa2	0.230%	1.95%	BBB	0.259%	1.73%
Baa3	0.307%	1.47%	BBB-	0.367%	1.23%
Ba1	0.408%	1.10%	BB+	0.518%	0.00%

# CAISO is proposing simplifying the 8-step process by replacing the Default Probability table

- Eliminates unnecessary conversion of ratings to default probabilities thus simplifying the process
- Allows use of Fitch and DBRS and any other rating that can be mapped to Moody's or S&P
- Still relies on the use multiple agency ratings and Moody's KMV Category Spot ratings in setting the percent of Tangible Net Worth or Net Assets to apply
- Consistent with practices of other ISOs/RTOs

Grade	Moody's KMV Spot Credit Category	Credit Moody's	Agency Rating S&P	Issuer Fitch	Percent of TNW or Net Assets
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	C	C	0.00	
		D	D	0.00	

# The whitepaper provided an example of the application of CAISO's recommendation

- Moody's issuer rating = A2
- S&P issuer rating = BBB+
- Moody's KMV spot credit category = Baa2
- TNW percentage = 50% of average issuer rating plus 50% of Moody's KMV
- $$\text{TNW}\% = 0.5 * ((5+3)/2) + 0.5(2)$$

$$= (0.5*4) + (0.5*2) = 2+1$$

$$= 3\% \text{ of TNW}$$

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

# Definition of Tangible Net Worth

# The definition of Tangible Net Worth requires certain refinements

- Current definition: assets minus intangibles (such as goodwill, etc.) minus liabilities
- The current definition does not exclude assets that may have been earmarked by the company for a particular purpose; such as restricted cash and assets related to affiliated entities
- The current definition does not exclude certain assets that are subject to excessive changes in valuation due to market fluctuations such as derivative assets
- Excluding these assets would provide a more conservative assessment of a company's Tangible Net Worth for the purpose of assigning unsecured credit limits

# CAISO proposes to change the definition of Tangible Net Worth to be more in line with MISO

- Tangible Net Assets equals total assets ***minus assets reserved for a specific purpose (e.g., restricted assets or assets invested in or receivables from Affiliates)*** minus intangible assets (***i.e., those assets not having a physical existence such as patents, trademarks, franchises, intellectual property and goodwill)*** ***minus highly volatile assets (e.g., directive assets)*** minus total liabilities
- Bolded and italicized words represent the changes to the current definition
- This definition differs somewhat from the whitepaper in that the whitepaper did not include highly volatile assets

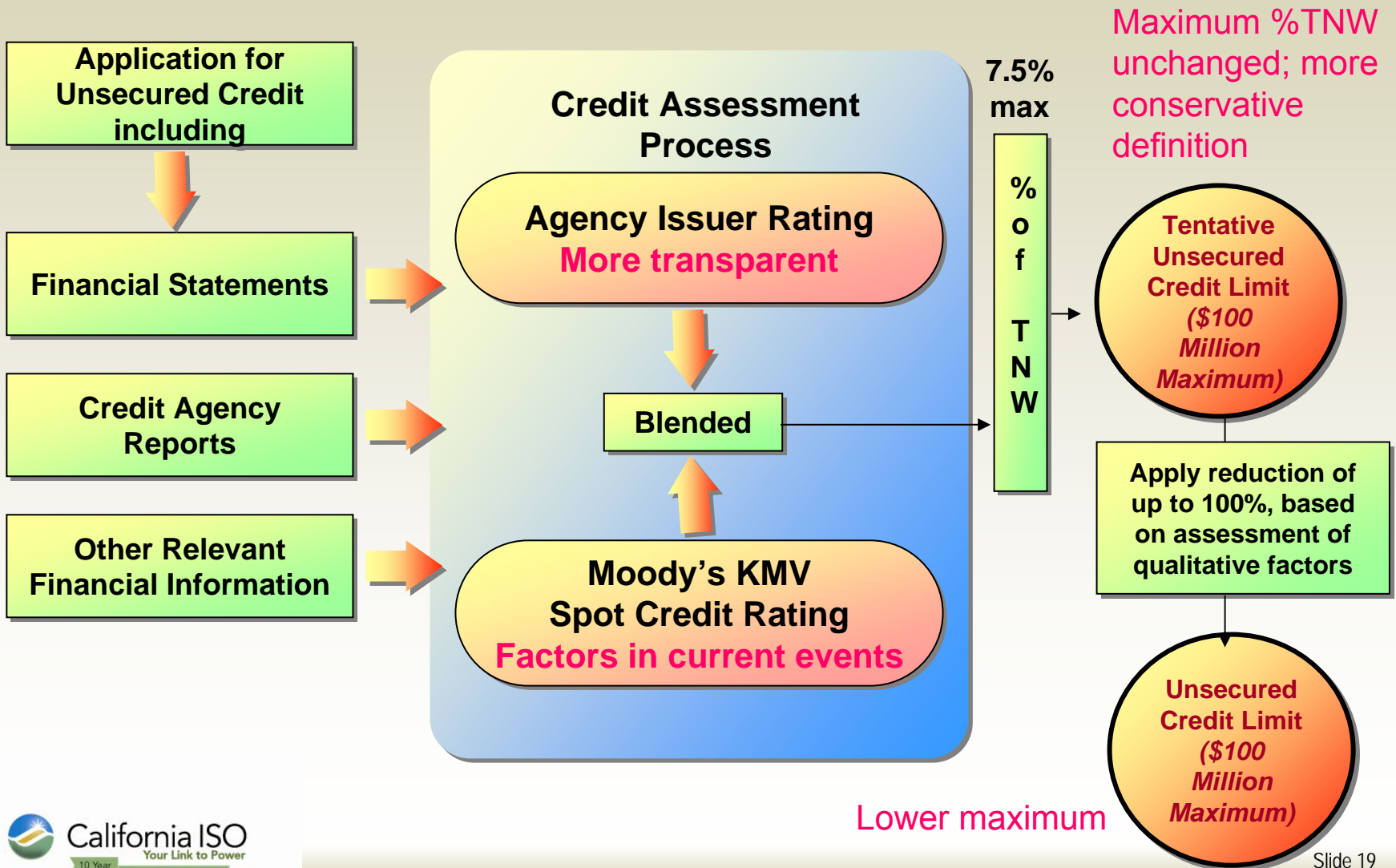


# Maximum Unsecured Credit Limit

# CAISO's current maximum Unsecured Credit Limit is considerably higher than other ISOs/RTOs

- Current maximum Unsecured Credit Limit is \$250 million
- Cost of unsecured credit – suppliers restricting supply due to concerns about high unsecured limits could lead to increased costs and potential reliability issues
- Propose to reduce the limit to \$100 million
- Market Participants with UCLs greater than \$100 million would have their UCLs reduced to that limit
- UCLs of Market Participants less than or equal to \$100 million will not be affected by this change
- Further reductions may be considered with the implementation of Payment Acceleration

# The proposed UCL enhancements are more transparent and somewhat more conservative



# Proposed Financial Security changes would allow some foreign financial backing and protect against undercapitalized affiliate entities

- Financial Security from Non-U.S. Based Entities
- Affiliated Entity Agreements

# Financial Security from Non-U.S. Based Entities

# CAISO is considering accepting Financial Security from non-U.S. based entities

- Currently, CAISO does not accept Financial Security from entities without a U.S. presence under the “reasonably acceptable” test
- Increasingly, the CAISO market is attracting Market Participants from overseas
- Consolidation in the energy industry has led to CAISO Market Participants having foreign parents
- A new policy under consideration would allow foreign entities to provide Financial Security according to strict limitations such as those adopted by ISO-NE

# ISO-NE accepts a maximum of \$10 million from foreign guarantors if specific criteria is met

- Meet all requirements of a non-foreign guarantor plus the guarantor must
  - Maintain a minimum issuer rating from S&P and Moody's
  - Provide financial statements that are consistent with GAAP or international accounting standards
  - Have American Depositary Receipts listed on the NYSE, ASE or NASDAQ
  - Be domiciled in a country having a reciprocity agreement with the U.S. acceptable to ISO-NE
- ISO-NE currently does not accept any other form of collateral from a foreign entity

# CAISO is open to expanding its current policy related to foreign security if appropriate safeguards can be put in place

- Questions remaining to be resolved
  - Are ISO-NE's restrictions sufficient and necessary?
  - Should other safeguards be put in place?
  - Can CAISO clear the legal hurdles related to the complexity and enforcement of international laws as well as the logistical challenges and costs of obtaining a judgment outside the U.S.?
  - Should CAISO consider extending this policy further to include other forms of Financial Security such as Letters of Credit?



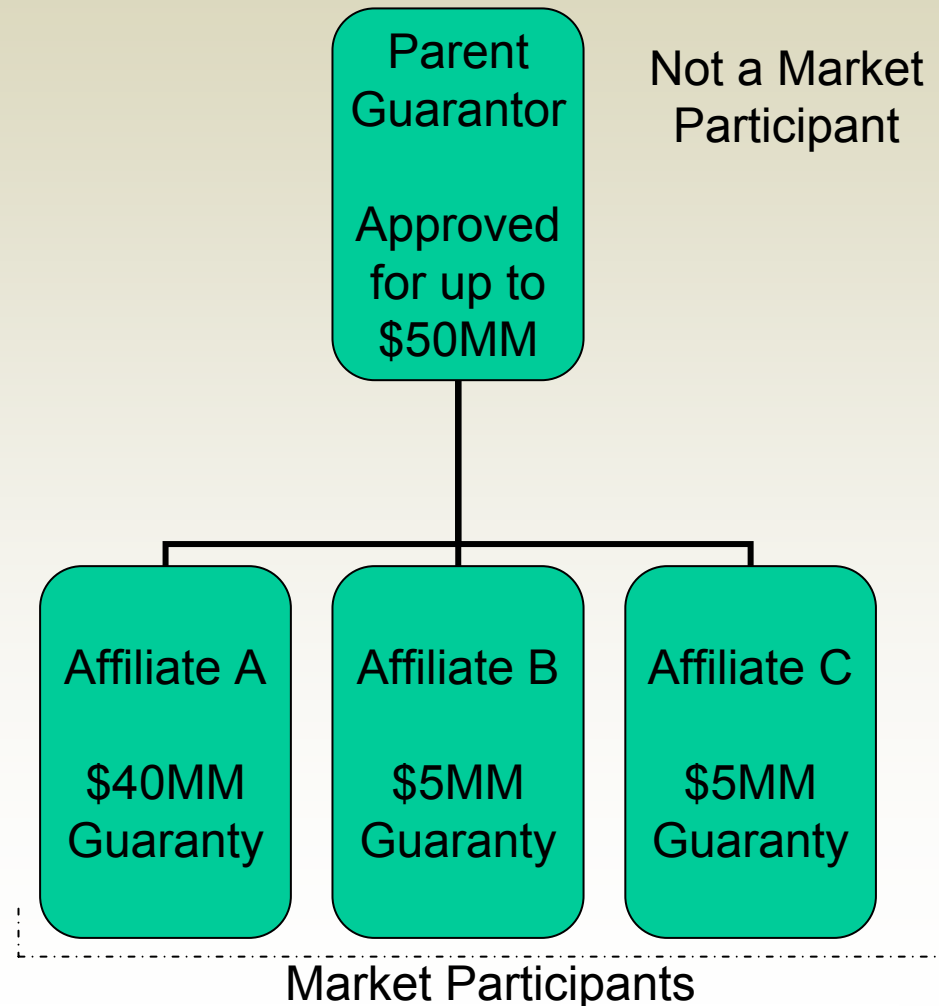
# Affiliated Entity Agreements

# A change to required financial support for affiliates may reduce the credit risk of under-secured affiliated entities

- Based on PJM experience, thinly capitalized and/or under secured affiliates of a parent guarantor pose a default risk when credit requirements change dramatically
- Under the current CAISO Tariff, this default risk is shared by all net creditors for the month of the default
- Typically, corporate parents write Guarantees backing the obligations of a particular affiliate
- Requiring corporate parents to provide a “blanket” Guaranty, backing the obligations of all of their affiliates, could mitigate default risk in certain instances

# Guarantees or some other form of collateral is typically provided for each individual affiliate

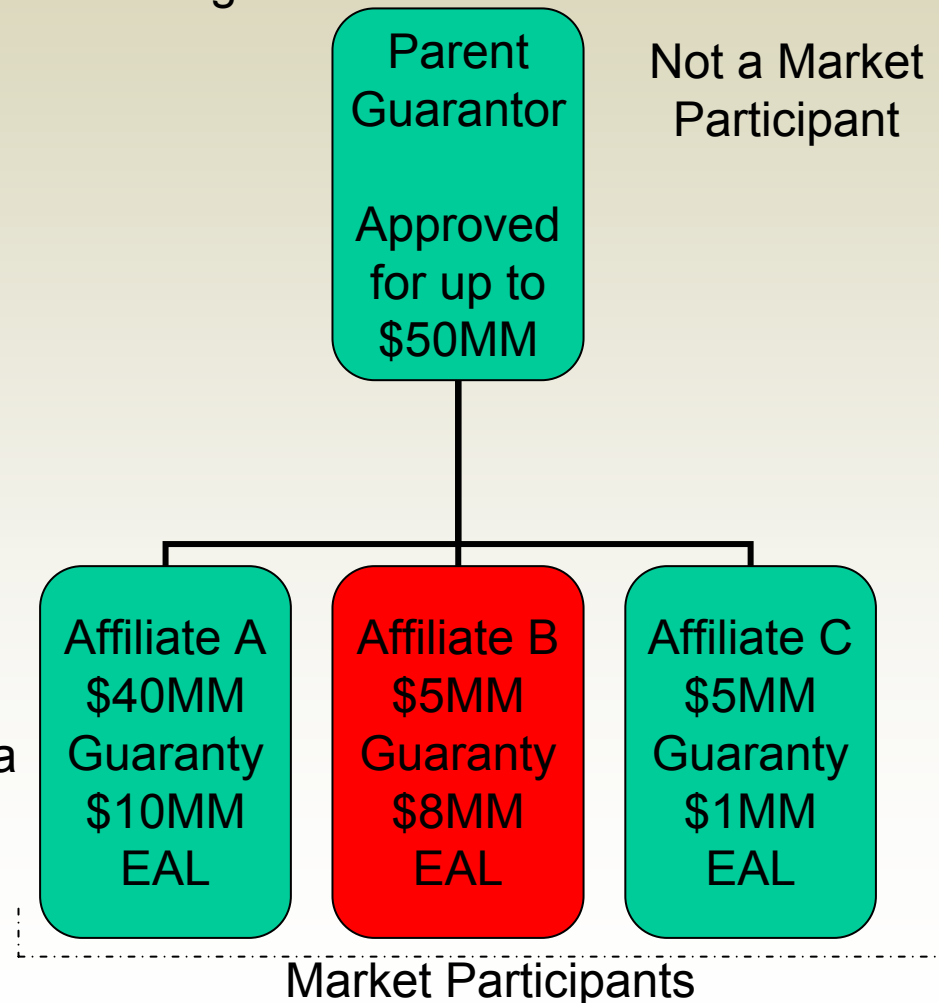
- Parent guarantor's limit is based on the same process as for determining Unsecured Credit Limits for a Market Participant
- Parent guarantor executes individual Guarantees for each affiliate that, in the aggregate, total  $\leq$  their approved limit
- Each affiliate's available credit is based on their Guaranty amount less their Estimated Aggregate Liability (EAL)
- Calls to request additional collateral are made when the affiliate's EAL exceeds 90% of the Guaranty amount



# An affiliate's liabilities exceeding their guaranty limit can result in credit risk to other CAISO Market Participants

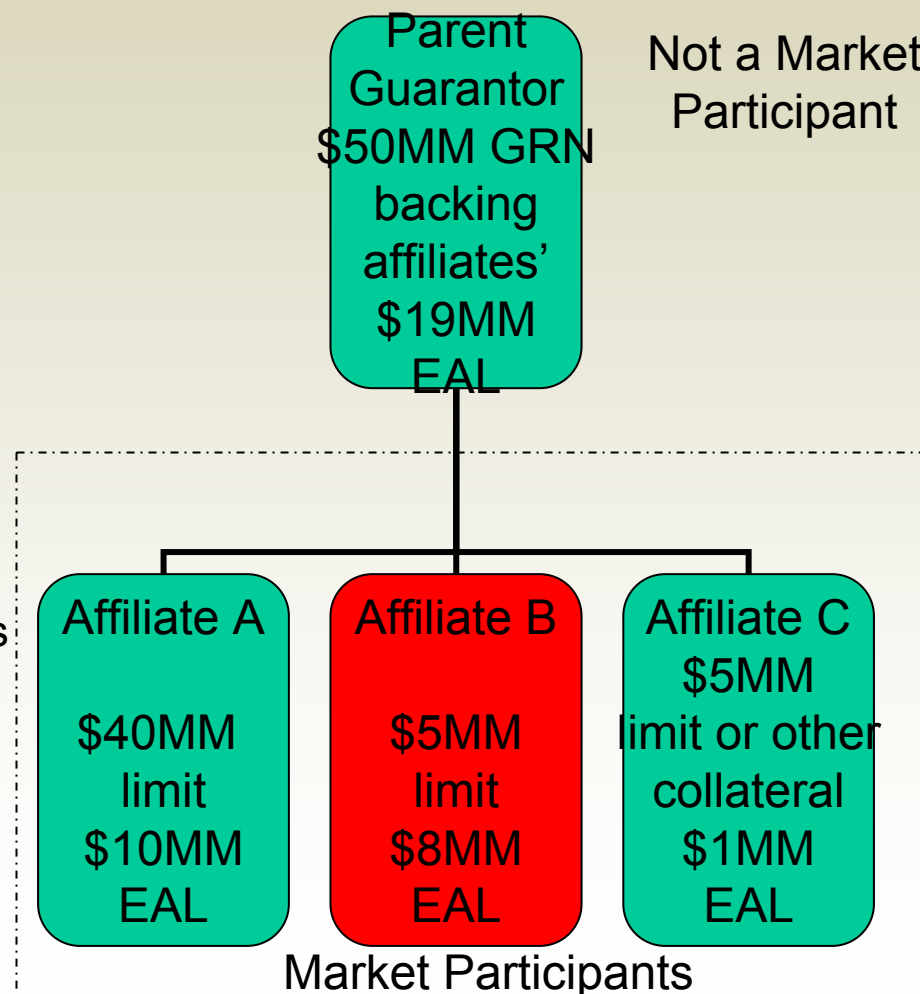
Affiliate B's credit requirements result in it exceeding its Guaranty limit

- Guarantor has no capacity to or does not increase the Guaranty amount
- Guarantor unwilling to amend existing Guarantee(s) to reallocate credit backing within approved limit
- Affiliate B does not provide another form of collateral
- Affiliate B considered to be in default according to the CAISO Tariff
- Subsequently, should Affiliate B miss a payment obligation, they will be in payment default which is socialized among net creditors in the market



# Requiring guarantees that cover all affiliate Market Participants may reduce the risk of default

- *PROPOSED ENHANCEMENT:* Parent guarantor writes a “blanket” Guaranty backing the aggregate liabilities of two or more of its Market Participant affiliates
- CAISO credit systems still require a single credit limit for each Market Participant
- Each affiliate remains responsible for ensuring it has adequate credit availability
- As a result of a collateral call, the parent guarantor must notify CAISO how to reallocate the Guaranty’s limits among its affiliates or the affiliate triggering the call may provide another form of collateral
- The parent guarantor is ultimately responsible for the EAL of all of its affiliates backed by the Guaranty within the total limits of the Guaranty



# This approach may reduce, but not eliminate, the risk of default

- Potential of default risk remains if the combined aggregate liabilities of the affiliates exceed their combined limits and/or the approved limit of the parent guarantor
- Potential of default risk remains if some affiliates are backed by the parent Guaranty while others are not
- 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
- Outstanding questions for stakeholder comment
  - Is there support for the proposed enhancement?
  - Does this concept present regulatory issues for non-regulated parents backing regulated and non-regulated affiliates?

# A number of other strategies are also under consideration to further reduce credit risk

- Time Allowed to Post Financial Security
- Available Credit for Congestion Revenue Rights (CRR) Auctions
- Funding a Reserve Account or Procuring Credit Insurance to Mitigate the Risk of Payment Defaults
- Loss Sharing/Chargeback Mechanism When a Payment Default Occurs
- Penalties for Late Payments and Late Response to Collateral Calls

# Time Allowed to Post Financial Security



# Reducing the time allowed to post financial security will protect the market from increasing obligations during extended cure periods

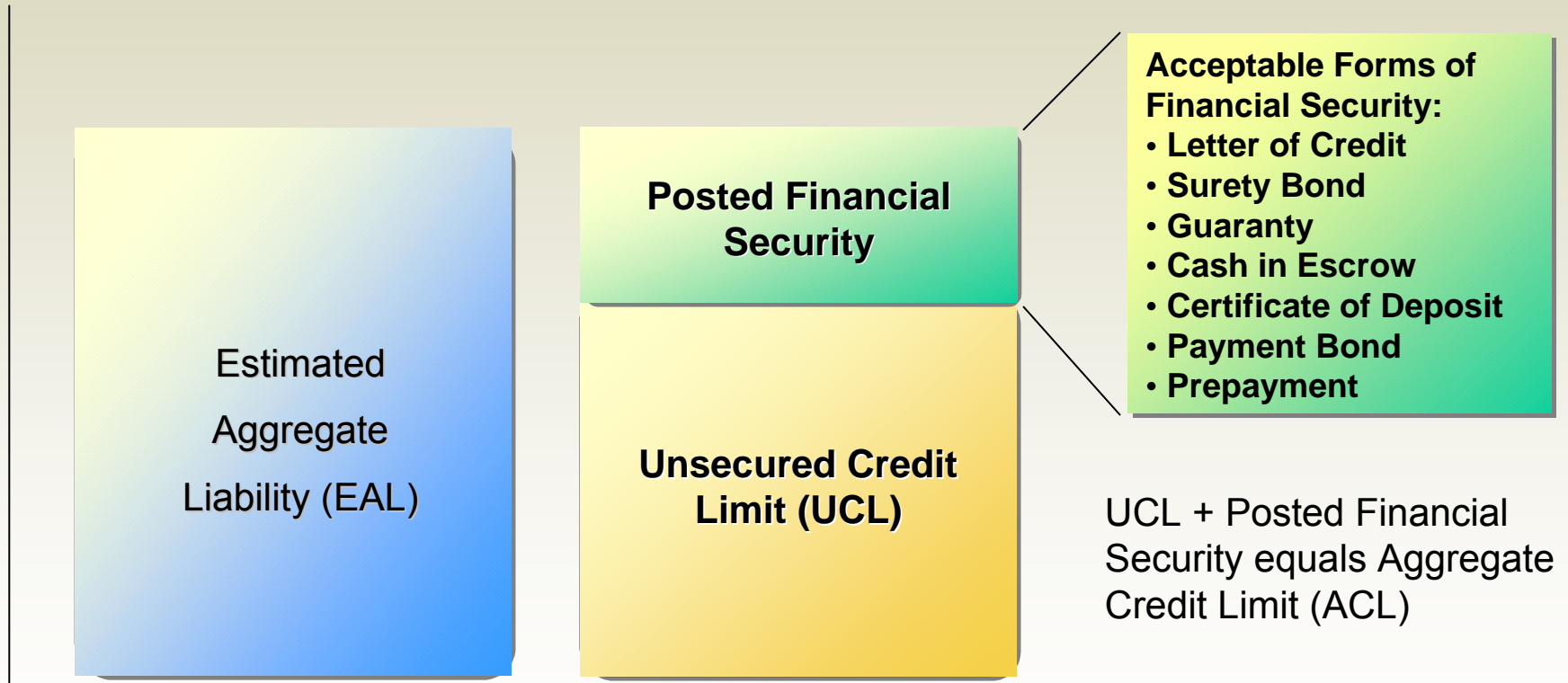
- Currently a Market Participant has five (5) Business Days (potentially 7-9 Calendar Days) to post additional Financial Security resulting from a collateral call
- CAISO has a 7 day buffer built in to the EAL calculation to cover response time for collateral calls to ensure a Market Participant does not exceed their Aggregate Credit Limit
- This buffer may be insufficient with the somewhat more volatile credit requirements of CRRs, new forms of inter-SC trades and trading in the Day Ahead market
- Most other ISOs/RTOs require collateral to be posted in 2-3 days

# CAISO proposes reducing the time to post additional collateral to three (3) Business Days

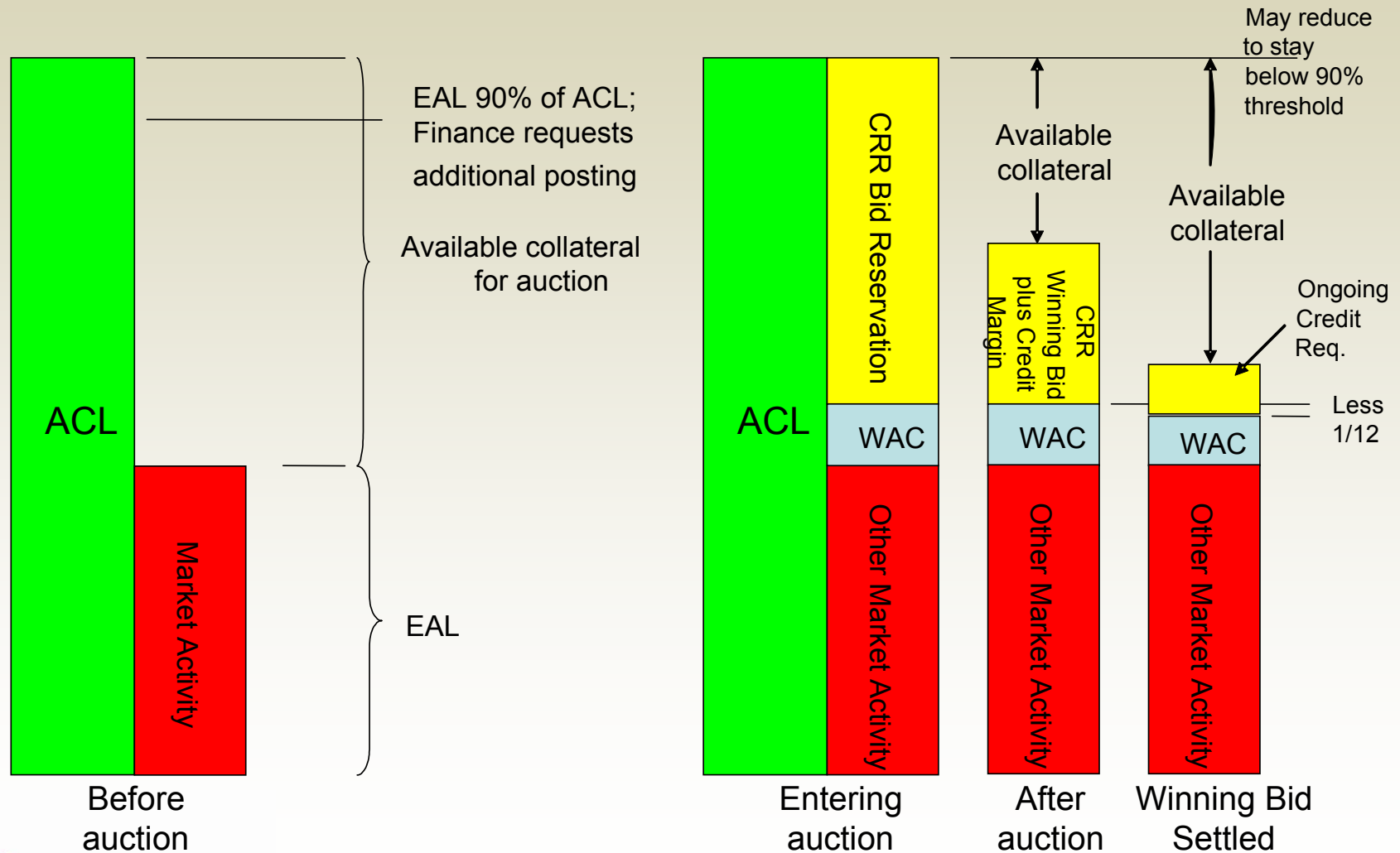
- Long cure periods allow Market Participants to continue to accrue large liabilities
- Allowing three (3) Business Days takes into account the lead time to modify and execute certain types of Financial Securities such as Letters of Credit and replacement guarantees

# **Available Credit for Congestion Revenue Rights (CRR) Auctions**

Net debtors must ensure they have sufficient unsecured credit and/or posted financial security to meet their monthly estimated liabilities



# Under today's policy, available collateral for a CRR auction equals ACL minus EAL



# Assigning 100% of available credit to a CRR auction leaves no credit capacity available for other market activity

- The 90% threshold for a collateral call was established to ensure a Market Participant retained sufficient credit capacity to continue to participate in the market
- Potential volatility in the credit requirements for CRRs, inter-SC trades and DA could consume available credit
- This problem is exacerbated with the introduction of Convergence Bidding after MRTU go live
- A potential solution is limiting the amount of available credit so as not to exceed the 90% threshold
- Should lower thresholds be considered?

# **Funding a Reserve Account or Procuring Credit Insurance to Mitigate the Risk of Payment Defaults**

# Funding a Reserve Account and/or Procuring Credit Insurance may Mitigate the Risk of Payment Defaults

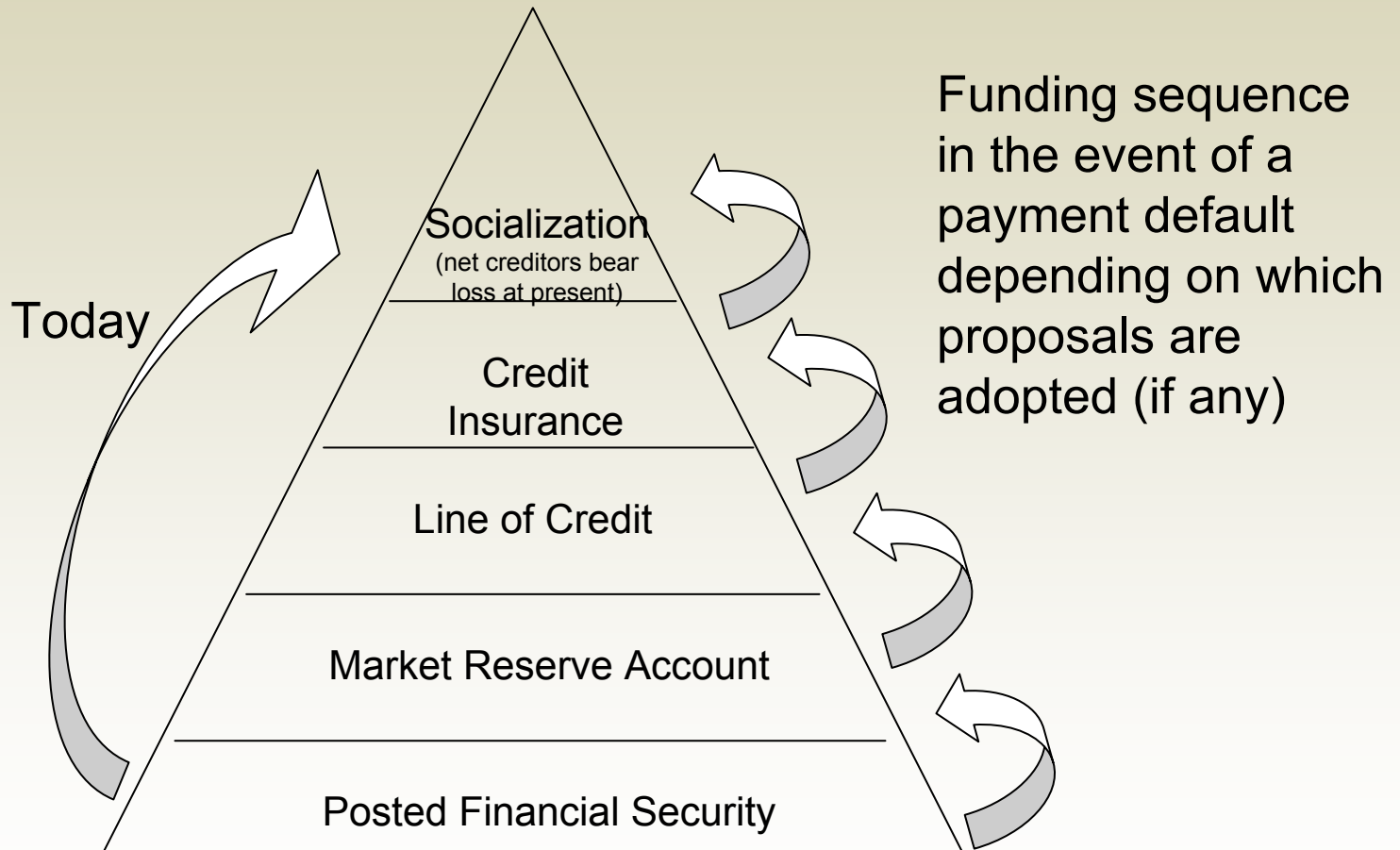
- The whitepaper presents a number of payment default risk mitigation strategies in sections 5.2 and 5.3 that were recently considered by PJM
  - Funding a reserve account or establishing an alternative credit facility
  - Procuring credit insurance or another financial instrument
- CAISO explored the use of credit insurance in 2005
- Each strategy has up-front costs that Market Participants would bear, that would reduce the exposure to a payment default
- These options involve significant implementation and administration concerns



# A number of different types of funding sources may be available to reduce the exposure to a payment default

- Reserve account
  - ISO-NE has a \$500K late payment penalty fund
  - NYISO has a \$50 million working capital fund
- Line of credit
  - NYISO has a line for losses that exceed its working capital fund
- Credit insurance
  - ISO-NE has coverage named by carrier; \$80 million in coverage; \$800K deductible
  - NYISO dropped coverage in 2004
- Other financial instruments
  - Establish/utilize a captive insurance company
  - Blended finite risk program
  - Capital market transfer

# Adding layers of funding sources may provide sizable protection from a socialized payment default



# CAISO is open to explore one or more of these alternatives

- Only ISO-NE and NYISO have experience; other ISOs have not had these programs in place
- PJM members rejected each of the alternatives
- Alternatives generally seen as a form of upfront socialization
- Do stakeholders want CAISO to further explore one or more of these alternatives?

# **Loss Sharing/Chargeback Mechanism When a Payment Default Occurs**

# Should the loss sharing mechanism when a payment default occurs be modified?

- Currently, suppliers (i.e., net creditors in a given month) in the CAISO market assume all the risk of a payment default; buyers are not exposed to a payment default
- CAISO is alone among ISOs/RTOs in the way it socializes a payment default among its members
- The PJM default resulted in multiple inquiries from Market Participants who were assessing their exposures to the CAISO market
- Many Market Participants support CAISO developing a mechanism comparable to that of our peers

# Suppliers offer the following potential consequences of the current default allocation under MRTU

- If a highly publicized default was to occur under MRTU, large suppliers have little recourse to manage their exposure to the CAISO, except to:
  - Stop selling to CAISO DA and RT Market(s)
  - Potentially start buying from CAISO DA and RT market(s) to reduce the exposures already built up
- If this situation coincides with a peak load day, credit issues can quickly escalate to a reliability issue
- This is an important issue that should be addressed prior to MRTU go live

# Market clearing depends on the timely payment of invoiced amounts by buyers in the market

## NORMAL MARKET CLEARING PROCESS

Market Participant	Invoiced Amount	MP Pays CAISO by 10:00am	CAISO Pays MP by 2:00pm
Market Participant 1	\$ (2,000,000)		\$ 2,000,000
Market Participant 2	\$ 6,000,000	\$ 6,000,000	
Market Participant 3	\$ (3,000,000)		\$ 3,000,000
Market Participant 4	\$ (5,000,000)		\$ 5,000,000
Market Participant 5	\$ 4,000,000	\$ 4,000,000	
	\$ -	\$ 10,000,000	\$ 10,000,000

# Currently, suppliers (net creditors in the default month) absorb all the risk of a payment default

## PAYMENT DEFAULT (CURRENT POLICY)\*

Market Participant	Invoiced Amount	MP Pays CAISO by 10:00am	CAISO Pays Net Creditors 60% of Amt Owed**	MP Loss Resulting from Default
Market Participant 1	\$ (2,000,000)		\$ 1,200,000	\$ 800,000
Market Participant 2	\$ 6,000,000	\$ 6,000,000		
Market Participant 3	\$ (3,000,000)		\$ 1,800,000	\$ 1,200,000
Market Participant 4	\$ (5,000,000)		\$ 3,000,000	\$ 2,000,000
Market Participant 5	\$ 4,000,000	<b>DEFAULTS</b>		
	\$ -	\$ 6,000,000	\$ 6,000,000	\$ 4,000,000
	Default Amt	\$4,000,000		
	CAISO collected 60% of the total amount due			

\* Net creditors for the month assume the risk of a payment default

\*\* Ignores CAISO's rights to recover GMC, etc.



# Other ISOs/RTOs spread the risk of a payment default to all of their members

## HYPOTHETICAL LOSS SHARING METHODOLOGY FOR A PAYMENT DEFAULT SHARED BY ALL MARKET PARTICIPANTS\*

Market Participant	Invoiced Amount	MP Pays CAISO by 10:00am	Absolute Value of Invoiced Amt	Percent of Total	Invoice Adjustment	Adjusted Invoice Amount	MP Loss Resulting from Default
Market Participant 1	\$ (2,000,000)		\$ 2,000,000	12.50%	\$ 500,000	\$ (1,500,000)	\$ 500,000
Market Participant 2	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	37.50%	\$ 1,500,000	\$ 7,500,000	\$ 1,500,000
Market Participant 3	\$ (3,000,000)		\$ 3,000,000	18.75%	\$ 750,000	\$ (2,250,000)	\$ 750,000
Market Participant 4	\$ (5,000,000)		\$ 5,000,000	31.25%	\$ 1,250,000	\$ (3,750,000)	\$ 1,250,000
Market Participant 5	\$ 4,000,000	<b>DEFAULTS</b>					
	\$ -	\$ 6,000,000	\$ 16,000,000	100.00%	\$ 4,000,000	\$ -	\$ 4,000,000
	Default Amt	\$ 4,000,000	to be allocated across all Market Participants on a prorata basis				

\* Similar methodology to that used by the other ISOs/RTOs

# If a charge-back mechanism is used, numerous issues remain to be resolved

- Any new default allocation methodology needs to be fair to all Market Participants and address any adverse incentives it may send for parties to reduce their exposures
- What measure should be used to apportion exposure to the chargeback?
  - Absolute value of net charges in the month of the default?
  - Absolute value of individual charges in the month of default?
  - Provide for a longer lookback?
  - Another measure?
- Settlements and market clearing system modifications would be required which could delay implementation

# **Penalties for Late Payments and Late Response to Collateral Calls**

# Penalties for late payments and late response to collateral calls may reduce occurrences of each

- An increasing number of Market Participants miss the 10a.m. deadline for paying invoices
  - Jeopardizes CAISO's ability to meet the same day distribution of funds target
  - Represents a real cost to Market Participants who are owed funds
- Similarly, some Market Participants do not respond to requests for additional collateral within five Business Days as allowed by the CAISO Tariff
  - Leaves the market undersecured for a period of time
- CAISO lacks targeted and effective enforcement tools to motivate Market Participants to comply with market rules in these areas
- Assessing penalties may encourage compliance with these Tariff requirements

# CAISO proposes establishing penalties for late payments and late posting of additional collateral

## ■ Late payments

- Assess interest as provided in Section 11.12.1 of the CAISO Tariff
- Beginning with the second late payment in a rolling 12 month period, assess a monetary penalty of the greater of 2% of the invoiced amount or \$1,000 but not to exceed \$10,000 a month
- On the third occurrence in a rolling 12 month period, UCL is reduced to zero and must be replaced with cash for 12 months

## ■ Late posting of additional collateral

- The greater of 2% of the collateral amount or \$1,000 (not to exceed \$10,000) penalty for third and subsequent occurrences in a rolling 12 month period

# Set and used appropriately penalties can reduce market risk

- Penalties set too low do not achieve the desired results
- Penalties set too high will be deemed unreasonable and will likely not gain regulatory approval
- Only ISO-NE has penalties for late payments and late posting of additional collateral
  - MISO has a provision that a two time late payer must post collateral to cover the highest invoiced amount from the preceding 12 months
- All penalties could potentially fund a market reserve account
- Implementation and administration issues must still be worked out

# Can a Credit Working Group add value to the existing stakeholder process?

- Current stakeholder process and the process under MRTU
- It's unlikely that CAISO would emulate the eastern ISO model
- CWG could potentially add value to CAISO's existing stakeholder process
  - Formalizes the process for introducing credit policy proposals
  - Regular (quarterly?) meetings versus periodic stakeholder processes
  - Include credit managers from other ISOs/RTOs and other credit professionals outside the industry
  - Proposals emerging from the CWG would still go through a stakeholder process

# Are there other credit policy enhancements that stakeholders want CAISO to evaluate?

- Other credit-related issues may be raised as time permits
- At a minimum, CAISO commits to study and respond to these issues as part of a future stakeholder process
- If stakeholders consider an issue important enough, CAISO will strive to include it in this stakeholder process
- To ensure the essence of the issue is captured, even if it's discussed during the meeting, all stakeholders are encouraged to document their credit policy issues and related comments and submit them to

[CreditPolicyComments@caiso.com](mailto:CreditPolicyComments@caiso.com)



# CAISO has a number of credit resources available on its Credit Policy webpage

California ISO: Credit Policy - Microsoft Internet Explorer

Address: <http://www.caiso.com/docs/2005/06/14/200506141656326466.html>

California ISO  
Your Link to Power

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Settlements

- Market and Administrative Charges
- Credit Policy**
  - BPM for Credit Management
  - Validation Data and Resources
  - Retroactive Settlements
  - Reliability Must-Run (RMR) - Settlements
  - Alternative Dispute Resolution (ADR) Proceedings
  - Technical Documentation
  - Market Operations Technical Information
  - Settlements Projects

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Credit Policy

Information regarding the credit-related provisions of the ISO Tariff including details about security postings by Scheduling Coordinators.

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**Credit Rating Default Probabilities -- Used in Unsecured Credit Limit Calculation**

Credit Rating Default Probabilities  
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Market Notice: New Credit Management Policy  
[html 12K](#) | [Abstract](#) | 05/18/2006 12:10

New Participant Security Calculation  
[xls 33K](#) | [Abstract](#) | 07/12/2005 15:25

ISO Form Letter of Credit  
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ISO Form Guaranty  
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ISO Credit Policy and Procedure Guide  
Updated to reflect agreement with BPM when Aggregate Credit Limit utilization levels are exceeded  
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ISO Credit Application  
Effective upon FERC acceptance of March 2006 Credit Policy Amendments-but early completion and submission to ISO recommended  
[doc 105K](#) | [Abstract](#) | 05/26/2006 14:49

Credit Business Practice Manual

Approved forms of financial security templates

Application for Unsecured Credit Limit

# Stakeholders are encouraged to submit comments regarding the proposed enhancements

- Please submit written comments by October 7, 2008 to

[CreditPolicyComments@caiso.com](mailto:CreditPolicyComments@caiso.com)

using the stakeholder comment template for Credit Policy Enhancements posted at

<http://www.caiso.com/docs/2003/04/21/2003042117001924814.html>