

# ICAP Spot Market Auction

## Enhancements to Bidding Requirement

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*Rensselaer, NY*

# Agenda

- ◆ Background
- ◆ Current bidding requirement for the ICAP Spot Market Auction
- ◆ Proposed bidding requirement for the ICAP Spot Market Auction
- ◆ Next Steps

# Background

- ◆ The NYISO periodically reviews its credit policy to ensure credit requirements match the risk associated with the markets.
- ◆ The current credit requirement for bidding in the ICAP Spot Market Auction is based on maximum potential exposure and utilizes the UCAP Based Reference Price.
- ◆ Market Participants have asked the NYISO to revisit this methodology based on recent Spot Market Auction trends/activity.
  - *At the April Management Committee meeting, Market Participants requested additional information be brought to the May Credit Policy Working Group prior to a vote, currently planned for the May Management Committee meeting.*
- ◆ No changes are being proposed to credit requirements for the Strip and Monthly ICAP auctions.

# Current ICAP Spot Market Bidding Requirement

# ICAP Spot Market Exposure: Current Bidding Requirement

- ◆ Section 26.4.3 of the Market Services Tariff states:
  - *The Bidding Requirement shall be an amount equal to...:*
    - (iv) five (5) days prior to any ICAP Spot Market Auction, the maximum amount that the Customer may be required to pay for UCAP in the auction
- ◆ Credit support for the bidding requirement is typically held for less than one week.

# ICAP Spot Market Exposure: Current Bidding Requirement

- ◆ The current bidding requirement is calculated using the following formula:
  - *The sum of all locations where the bidding requirement for each location is calculated as follows:*
    - UCAP Based Reference Price (in kW) \* 1,000 \* Deficient MWs  
plus
    - $\frac{1}{2}$  UCAP Based Reference Price (in kW) \* 1,000 \*  $\frac{1}{2}$  Spot Percent \* Requirement MWs

*Where Spot Percent currently equals 18% for Zones J and K and 12% for NYCA*

# ICAP Spot Market Exposure: Current Bidding Requirement

- ◆ The following example summarizes the current bidding requirement for the ICAP Spot Market Auction:

Summary for one Market Participant covering a 1 MW deficiency in each location (NYC, LI, NYCA)

	May 2006 - Oct 2011	May 2007 - Oct 2011	May 2007 - April 2010	May 2010 - Oct 2011
<b>Collateral Held</b>	\$2,367,123	\$1,932,031	\$1,247,958	\$684,074
<b>Uncovered Payments</b>	\$0	\$0	\$0	\$0
<b>% Uncovered</b>	0.0%	0.0%	0.0%	0.0%
<b>Excess Collateral Held</b>	\$1,551,583	\$1,322,251	\$819,228	\$503,024

- ◆ While the current rule has historically resulted in no exposure to the market for Market Participant non-payment, there is a potential to reduce the collateral held without significantly increasing exposure.

# Proposed ICAP Spot Market Bidding Requirement



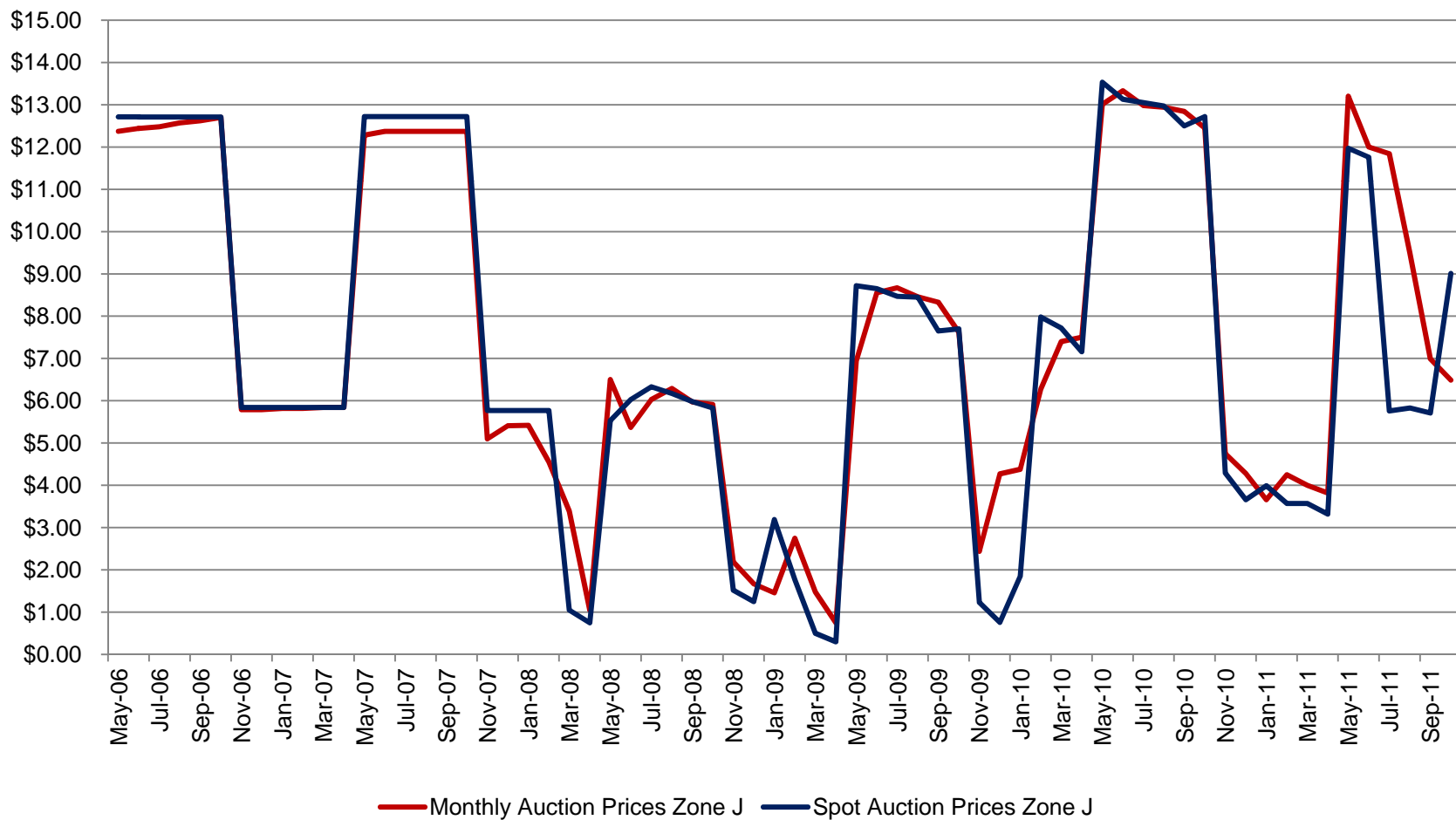
# ICAP Spot Market Exposure: Proposed Bidding Requirement

- ◆ The NYISO considered the following factors when analyzing potential bidding requirement methodologies for the ICAP Spot Market Auction:
  - *Market risk associated with the ICAP Spot Market.*
  - *The overall uncovered exposure.*
  - *Trends on collateral held under the current rule.*

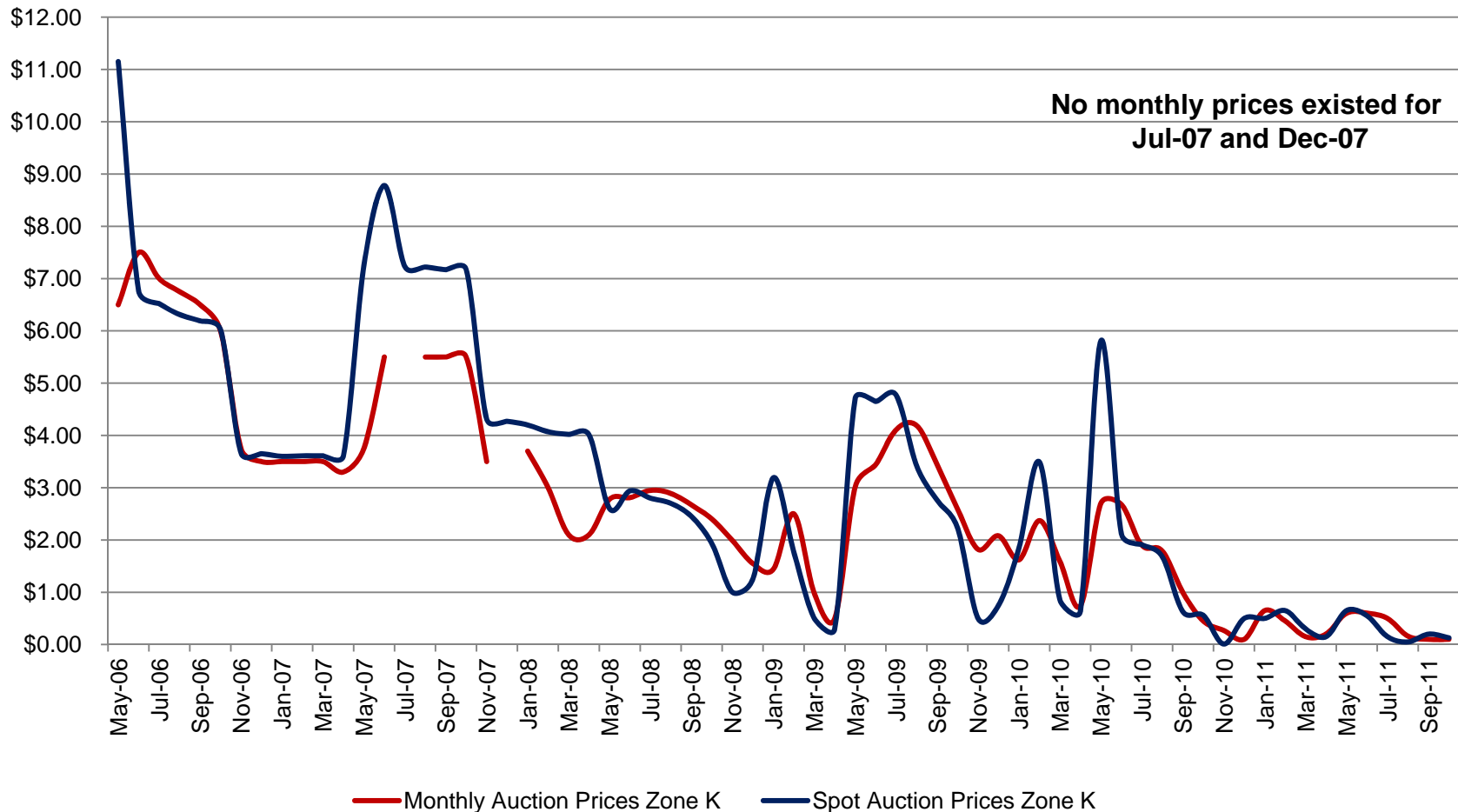
# ICAP Spot Market Exposure: Analysis

- ◆ The tariff states that the bidding requirement is equal to the maximum amount the Customer may be required to pay for UCAP in the auction.
  - *The NYISO utilizes the UCAP Based Reference Price to determine maximum exposure.*
- ◆ The NYISO analyzed the use of the most recent monthly auction price as an option to right-size the bidding requirement.
- ◆ The following three slides compare the monthly auction price to the spot market auction price by location.
  - *The analysis of historical data shows a positive correlation between the monthly auction price and the spot auction price.*

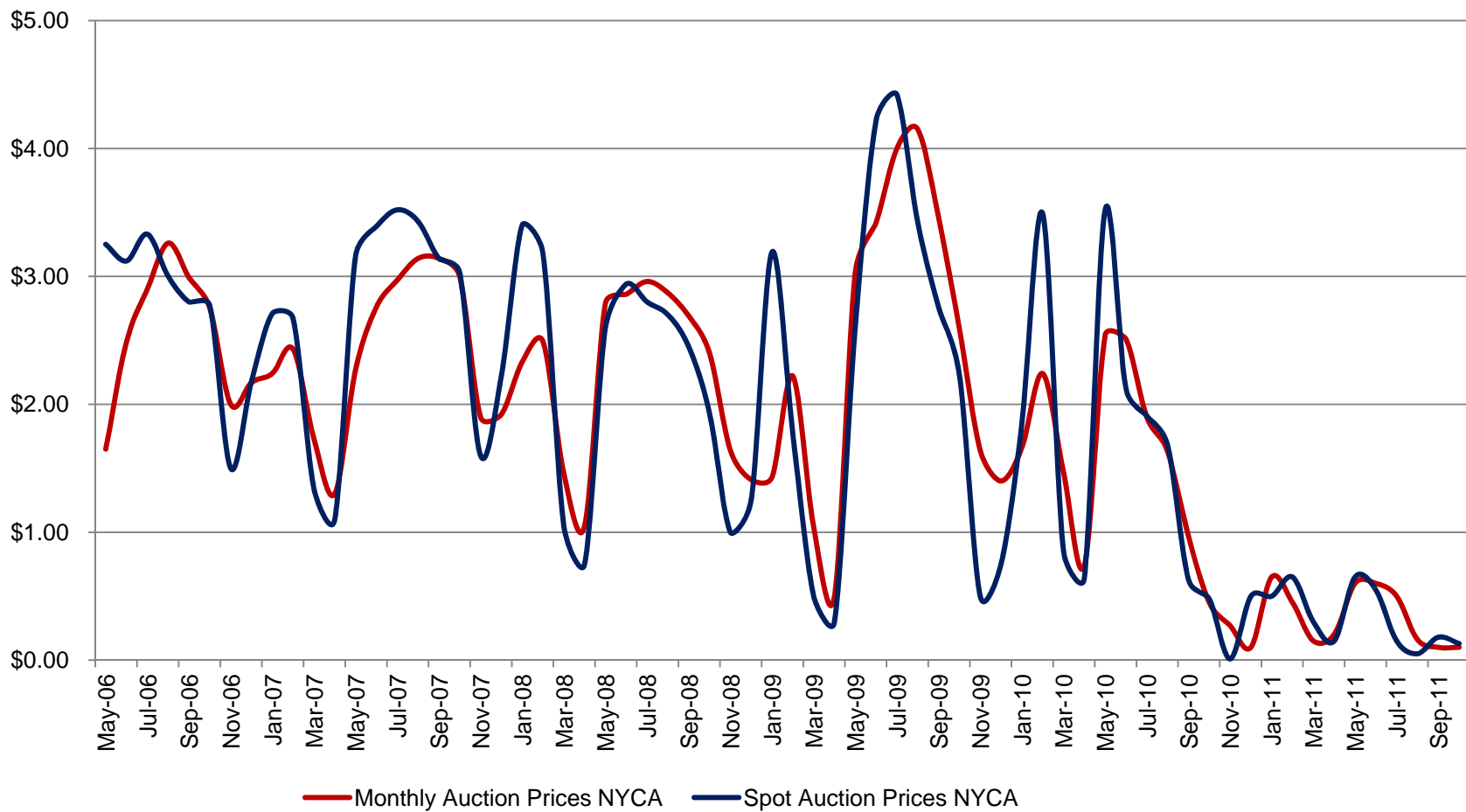
# Monthly Price vs. Spot Price: Zone J



# Monthly Price vs. Spot Price: Zone K



# Monthly Price vs. Spot Price: NYCA



# ICAP Spot Market Exposure: Analysis

- ◆ The NYISO determined that a margin added to the monthly auction price would be needed in order to cover the price variability between the two auctions (Monthly and Spot).
- ◆ Using historical data since May 2006, an analysis was performed to examine the effectiveness of adding a margin, by location, to the monthly auction price.

# ICAP Spot Market Exposure: Analysis – Zone J 15% Margin

- ◆ Adding a margin of 15% to the monthly auction price in Zone J identified the following:
  - *Overall uncovered exposure would have approximated 1% from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 45% during the same time period.*

Breakdown for one Market Participant covering a 1 MW deficiency in Zone J

	May 2006 - Oct 2011	May 2007 - Oct 2011	May 2007 - April 2010	May 2010 - Oct 2011
<b>Collateral Held</b>	\$573,459	\$446,867	\$260,188	\$186,680
<b>Uncovered Payments</b>	\$5,104	\$5,104	\$3,557	\$1,547
<b>% Uncovered</b>	1.1%	1.4%	1.6%	1.0%
<b>Excess Collateral Held</b>	\$94,983	\$79,691	\$41,805	\$37,886

# ICAP Spot Market Exposure: Analysis – Zone J 15% Margin

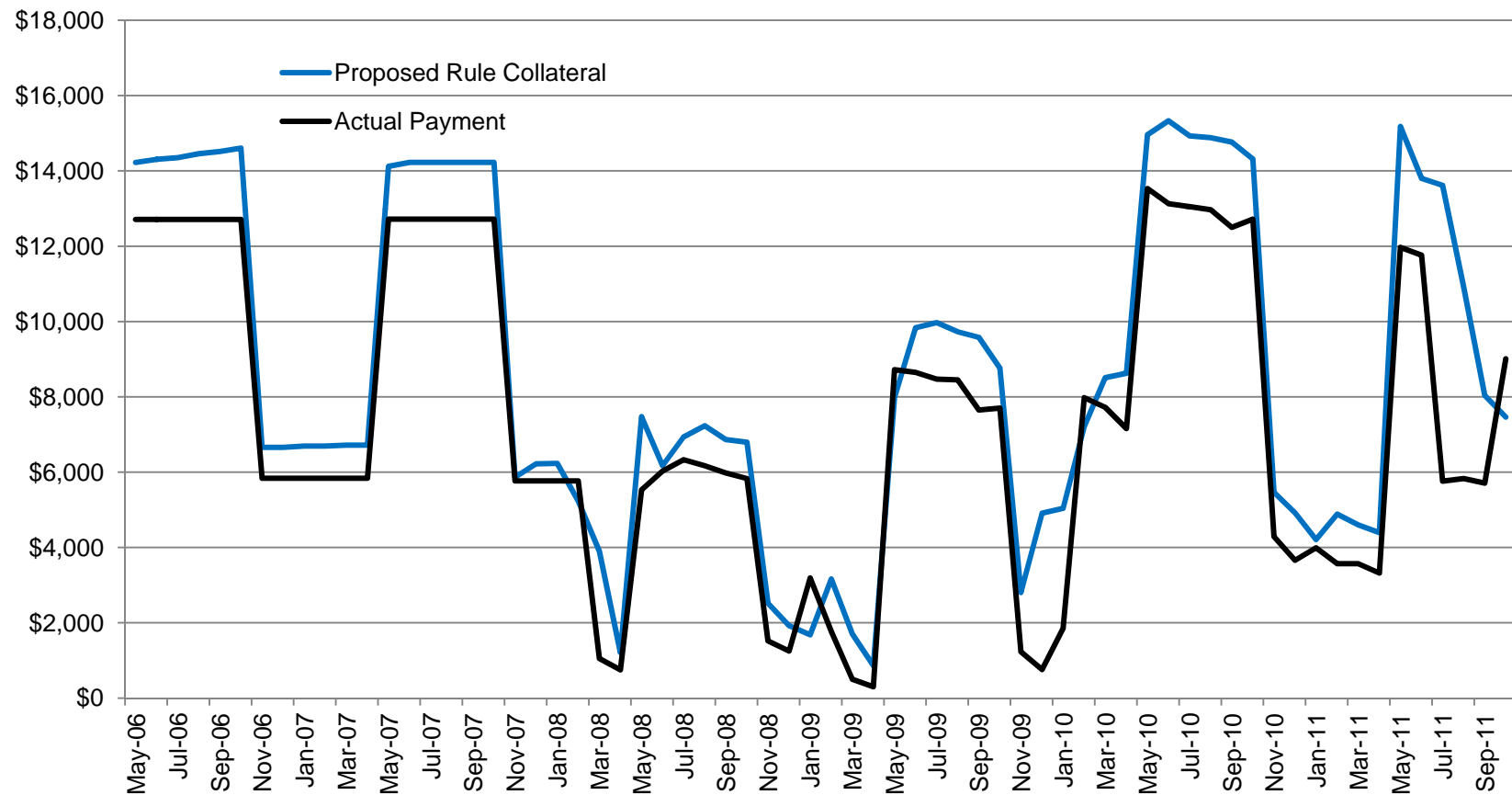
- Market Participants requested a breakdown of uncovered exposure utilizing the proposed 15% margin, or approximately 99% overall coverage, by Capability Period.

Breakdown for one Market Participant covering a 1 MW deficiency in Zone J

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$86,457	\$40,135	\$85,250	\$28,658	\$41,481	\$11,845	\$55,856	\$37,099	\$89,183	\$28,474	\$69,023
Uncovered Payments	\$0	\$0	\$0	\$538	\$0	\$1,511	\$739	\$770	\$0	\$0	\$1,547
% Uncovered	0.0%	0.0%	0.0%	2.2%	0.0%	17.7%	1.5%	2.9%	0.0%	0.0%	3.1%
Excess Collateral Held	\$10,197	\$5,095	\$8,929	\$4,316	\$5,610	\$4,826	\$6,955	\$11,169	\$11,283	\$6,074	\$20,530



# ICAP Spot Market Exposure: Analysis – Zone J 15% Margin



# ICAP Spot Market Exposure: Analysis – Zone J 25% Margin

- Market Participants also requested that NYISO analyze the impact of adding a 25% margin to the monthly auction price in Zone J, which would result in approximately 99.5% of covered deficiency payments from May 2006 through October 2011.

Breakdown for one Market Participant covering a 1 MW deficiency in Zone J

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$93,975	\$43,625	\$92,663	\$31,150	\$45,088	\$12,875	\$60,713	\$40,325	\$96,938	\$30,950	\$75,025
Uncovered Payments	\$0	\$0	\$0	\$83	\$0	\$1,365	\$45	\$143	\$0	\$0	\$898
% Uncovered	0.0%	0.0%	0.0%	0.3%	0.0%	16.0%	0.1%	0.5%	0.0%	0.0%	1.8%
Excess Collateral Held	\$17,715	\$8,585	\$16,343	\$6,353	\$9,218	\$5,710	\$11,118	\$13,768	\$19,038	\$8,550	\$25,883

- Collateral requirements would have been reduced by approximately 40% during the same time period.

# ICAP Spot Market Exposure: Analysis – Zone K 95% Margin

- ◆ Adding a margin of 95% to the monthly auction price in Zone K identified the following:
  - *Overall uncovered exposure would have approximated 1% from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 53% during the same time period.*

Breakdown for one Market Participant covering a 1 MW deficiency in Zone K

	May 2006 - Oct 2011	May 2007 - Oct 2011	May 2007 - April 2010	May 2010 - Oct 2011
<b>Collateral Held</b>	\$336,005	\$216,489	\$188,409	\$28,080
<b>Uncovered Payments</b>	\$1,245	\$1,245	\$382	\$863
<b>% Uncovered</b>	0.6%	1.0%	0.3%	5.2%
<b>Excess Collateral Held</b>	\$143,759	\$88,934	\$76,541	\$12,393

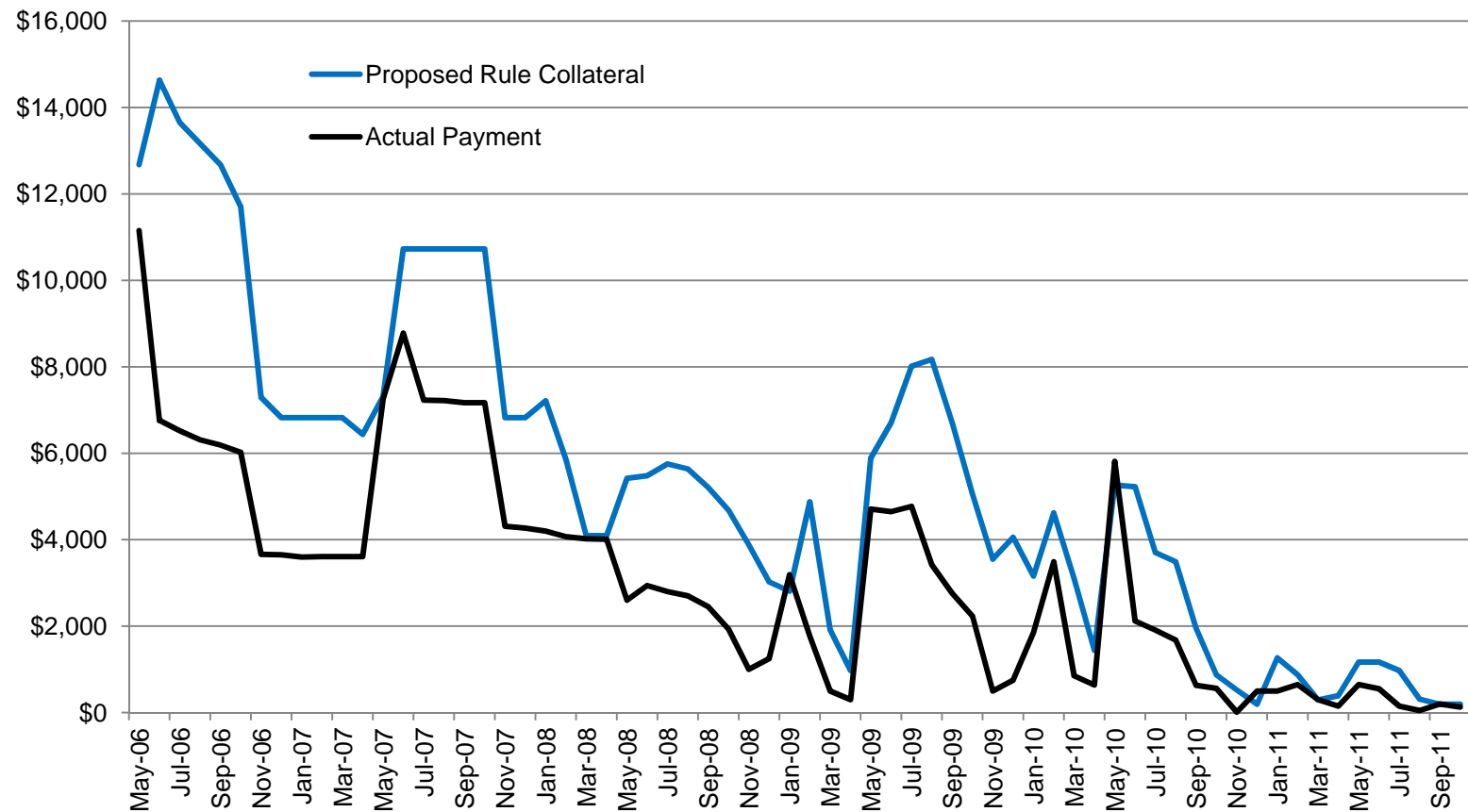
# ICAP Spot Market Exposure: Analysis – Zone K 95% Margin

- Market Participants requested a breakdown of uncovered exposure utilizing the proposed 95% margin, or approximately 99% overall coverage, by Capability Period.

Breakdown for one Market Participant covering a 1 MW deficiency in Zone K

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$78,488	\$41,028	\$50,213	\$28,080	\$32,175	\$17,472	\$40,541	\$19,929	\$20,514	\$3,549	\$4,017
Uncovered Payments	\$0	\$0	\$0	\$0	\$0	\$382	\$0	\$0	\$545	\$313	\$5
% Uncovered	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	4.3%	14.8%	0.3%
Excess Collateral Held	\$35,538	\$19,288	\$12,623	\$7,470	\$16,755	\$9,844	\$18,001	\$11,849	\$8,349	\$1,752	\$2,292

# ICAP Spot Market Exposure: Analysis – Zone K 95% Margin



# ICAP Spot Market Exposure: Analysis – Zone K 100% Margin

- Market Participants also requested that NYISO analyze the impact of adding a 100% margin to the monthly auction price in Zone K, which would result in approximately 99.5% of covered deficiency payments from May 2006 through October 2011.

Breakdown for one Market Participant covering a 1 MW deficiency in Zone K

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$80,500	\$42,080	\$51,500	\$28,800	\$33,000	\$17,920	\$41,580	\$20,440	\$21,040	\$3,640	\$4,120
Uncovered Payments	\$0	\$0	\$0	\$0	\$0	\$310	\$0	\$0	\$410	\$300	\$0
% Uncovered	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	3.2%	14.2%	0.0%
Excess Collateral Held	\$37,550	\$20,340	\$13,910	\$8,190	\$17,580	\$10,220	\$19,040	\$12,360	\$8,740	\$1,830	\$2,390

- Collateral requirements would have been reduced by approximately 52% during the same time period.

# ICAP Spot Market Exposure: Analysis – NYCA 95% Margin

- ◆ Adding a margin of 95% to the monthly auction price in NYCA identified the following:
  - *Overall uncovered exposure would have approximated 1% from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 59% during the same time period.*

Breakdown for one Market Participant covering a 1 MW deficiency in NYCA

	May 2006 - Oct 2011	May 2007 - Oct 2011	May 2007 - April 2010	May 2010 - Oct 2011
<b>Collateral Held</b>	\$243,419	\$188,994	\$161,928	\$27,066
<b>Uncovered Payments</b>	\$747	\$714	\$402	\$313
<b>% Uncovered</b>	0.6%	0.7%	0.5%	2.2%
<b>Excess Collateral Held</b>	\$117,195	\$92,508	\$79,290	\$13,219

# ICAP Spot Market Exposure: Analysis – NYCA 95% Margin

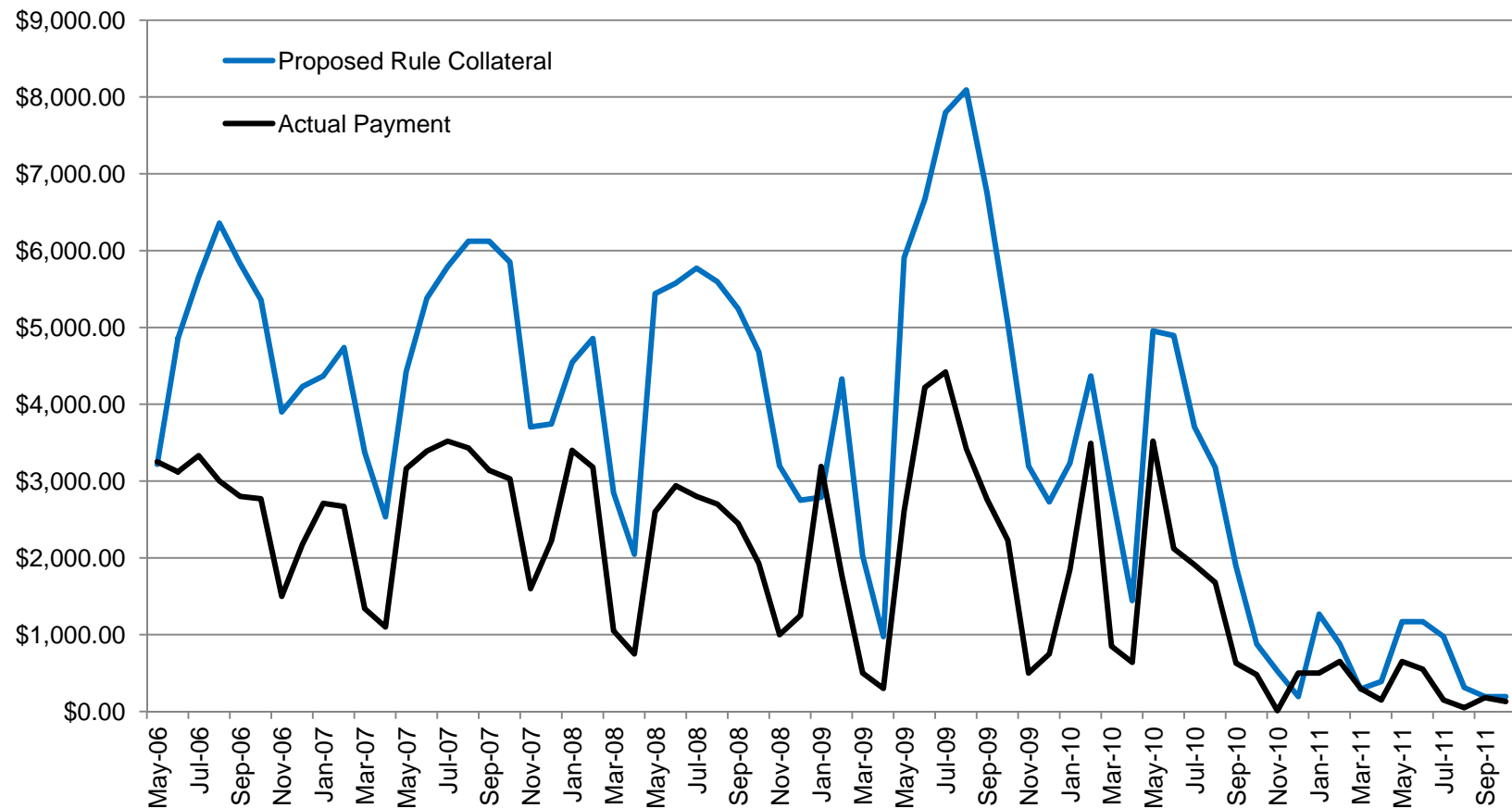
- Market Participants requested a breakdown of uncovered exposure utilizing the proposed 95% margin, or approximately 99% overall coverage, by Capability Period.

Breakdown for one Market Participant covering a 1 MW deficiency in NYCA

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$31,278	\$23,147	\$33,696	\$21,743	\$32,312	\$16,068	\$40,268	\$17,843	\$19,500	\$3,549	\$4,017
Uncovered Payments	\$33	\$0	\$0	\$0	\$0	\$402	\$0	\$0	\$0	\$313	\$0
% Uncovered	0.2%	0.0%	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%	0.0%	14.8%	0.0%
Excess Collateral Held	\$13,041	\$11,647	\$14,026	\$9,543	\$16,892	\$8,460	\$20,608	\$9,763	\$9,160	\$1,752	\$2,307



# ICAP Spot Market Exposure: Analysis – NYCA 95% Margin



# ICAP Spot Market Exposure: Analysis – NYCA 100% Margin

- Market Participants also requested that NYISO analyze the impact of adding a 100% margin to the monthly auction price in NYCA, which would result in approximately 99.5% of covered deficiency payments from May 2006 through October 2011.

Breakdown for one Market Participant covering a 1 MW deficiency in NYCA

	May 2006 - Oct 2006	Nov 2006 - April 2007	May 2007 - Oct 2007	Nov 2007 - April 2008	May 2008 - Oct 2008	Nov 2008 - April 2009	May 2009 - Oct 2009	Nov 2009 - April 2010	May 2010 - Oct 2010	Nov 2010 - April 2011	May 2011 - Oct 2011
Collateral Held	\$32,080	\$23,740	\$34,560	\$22,300	\$33,140	\$16,480	\$41,300	\$18,300	\$20,000	\$3,640	\$4,120
Uncovered Payments	\$0	\$0	\$0	\$0	\$0	\$330	\$0	\$0	\$0	\$300	\$0
% Uncovered	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	0.0%	0.0%	14.2%	0.0%
Excess Collateral Held	\$13,810	\$12,240	\$14,890	\$10,100	\$17,720	\$8,800	\$21,640	\$10,220	\$9,660	\$1,830	\$2,410

- Collateral requirements would have been reduced by approximately 58% during the same time period.

# ICAP Spot Market Exposure: Recommendation

- ◆ The NYISO recommends using the most recent monthly auction price plus a margin, by location, to determine the bidding requirement for the ICAP Spot Market Auction.
  - *UCAP Based Reference Price has historically required excessive collateral to cover potential market exposure.*
  - *Reduces the bidding requirement significantly while sufficiently covering exposure to the market.*
- ◆ To provide appropriate coverage for potential exposure, the NYISO continues to recommend margins by location as follows:
  - *Zone J = 15%*
  - *Zone K = 95%*
  - *NYCA = 95%*

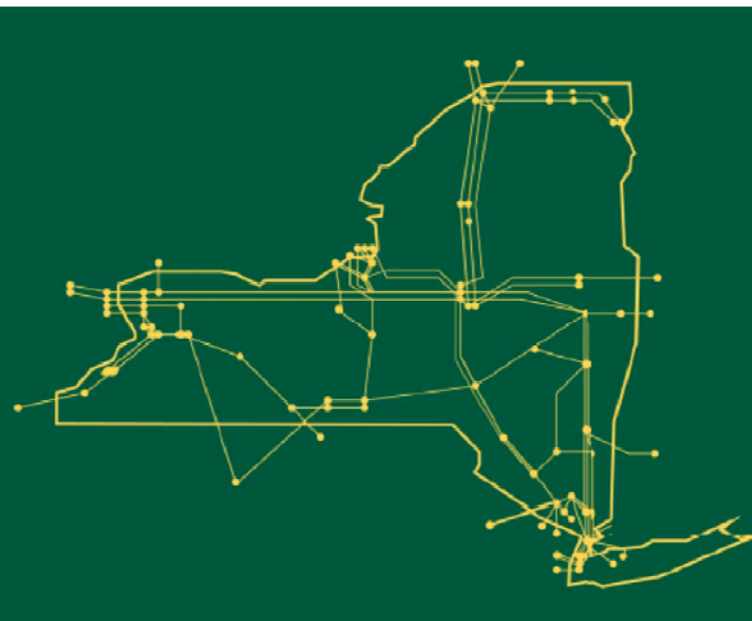
# ICAP Spot Market Exposure: Recommendation

- ◆ The bidding requirement would be calculated using the following margin formula:
  - *The sum of all locations where the bidding requirement for each location is calculated as follows:*
    - $[\text{Monthly Auction Price} + (\text{Margin} * \text{Monthly Auction Price})] * 1,000 * \text{Deficient MWs}$   
plus
    - ~~$\frac{1}{2}$~~   $[\text{Monthly Auction Price} + (\text{Margin} * \text{Monthly Auction Price})] * 1,000 * \frac{1}{2} \text{ Spot Percent} * \text{Requirement MWs}$   
*Where Spot Percent currently equals 18% for Zones J and K and 12% for NYCA*
  - ◆ At BIC, Market Participants voiced a concern whereby the requirement for “excess” capacity would only use half of the monthly auction price.
    - ◆ Given the change in price from the UCAP Based Reference Price to the Monthly Auction Price, the NYISO agrees and will remove the  $\frac{1}{2}$  from the proposed formula.
- ◆ If no monthly auction price exists, the calculation would use the last available monthly price for that location.
  - *Historically this has only occurred twice in Zone K*

# Next Steps

- ◆ CPWG March 16
- ◆ BIC April 18
- ◆ MC April 25
- ◆ CPWG May 14
- ◆ MC May 30
- ◆ BOD June 2012
- ◆ FERC Filing June/July 2012
- ◆ Implementation October 2012
- ◆ Additional analysis to be evaluated next year

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