

# ICAP Spot Market Auction

## Enhancements to Bidding Requirement

**Sheri Prevratil**

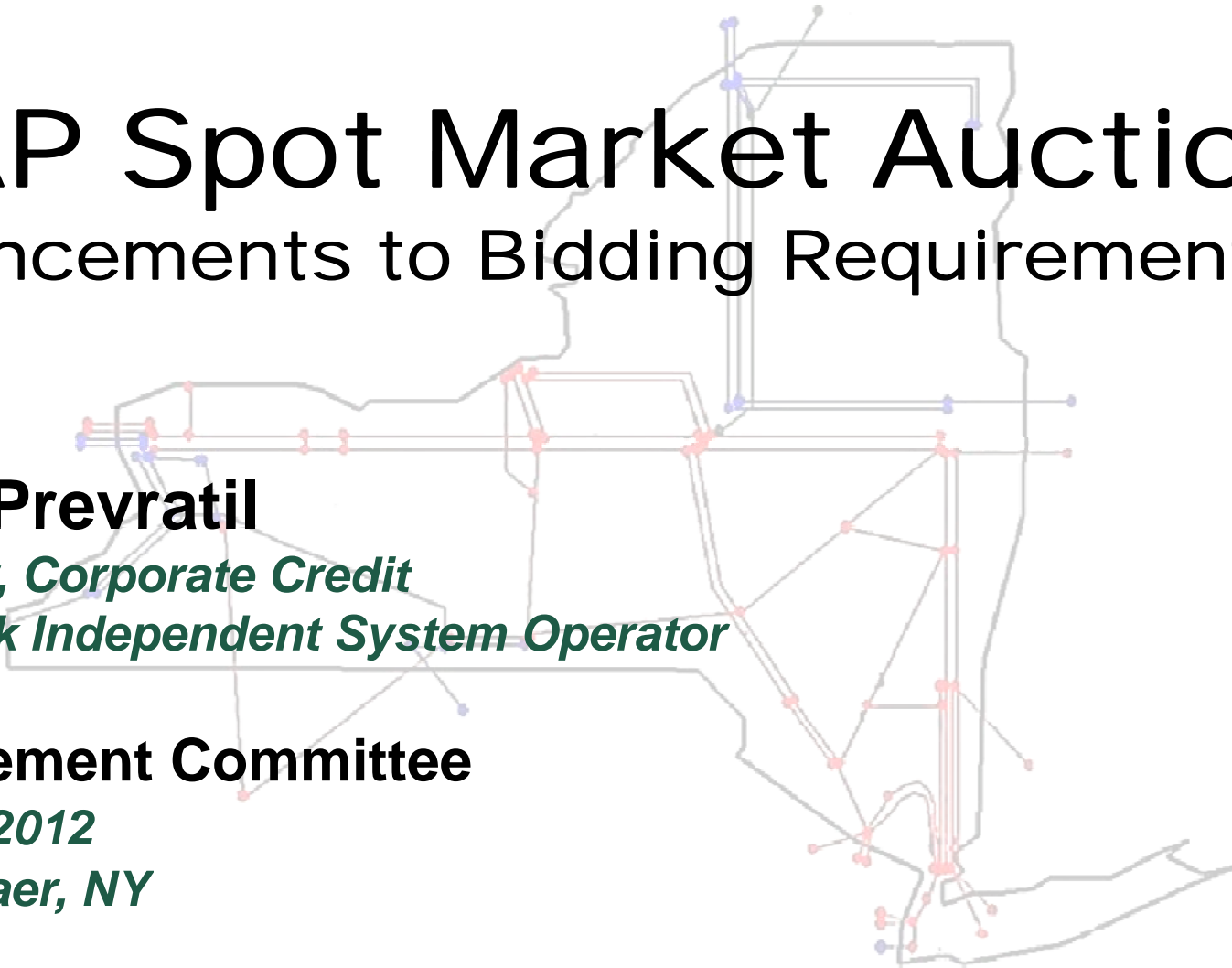
*Manager, Corporate Credit*

*New York Independent System Operator*

**Management Committee**

*May 30, 2012*

*Rensselaer, NY*



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# Agenda

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

# Governance Process to Date

- ◆ CPWG March 16
- ◆ BIC April 18
- ◆ MC April 25
- ◆ CPWG May 14
- ◆ MC May 30

# 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.
- ◆ 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

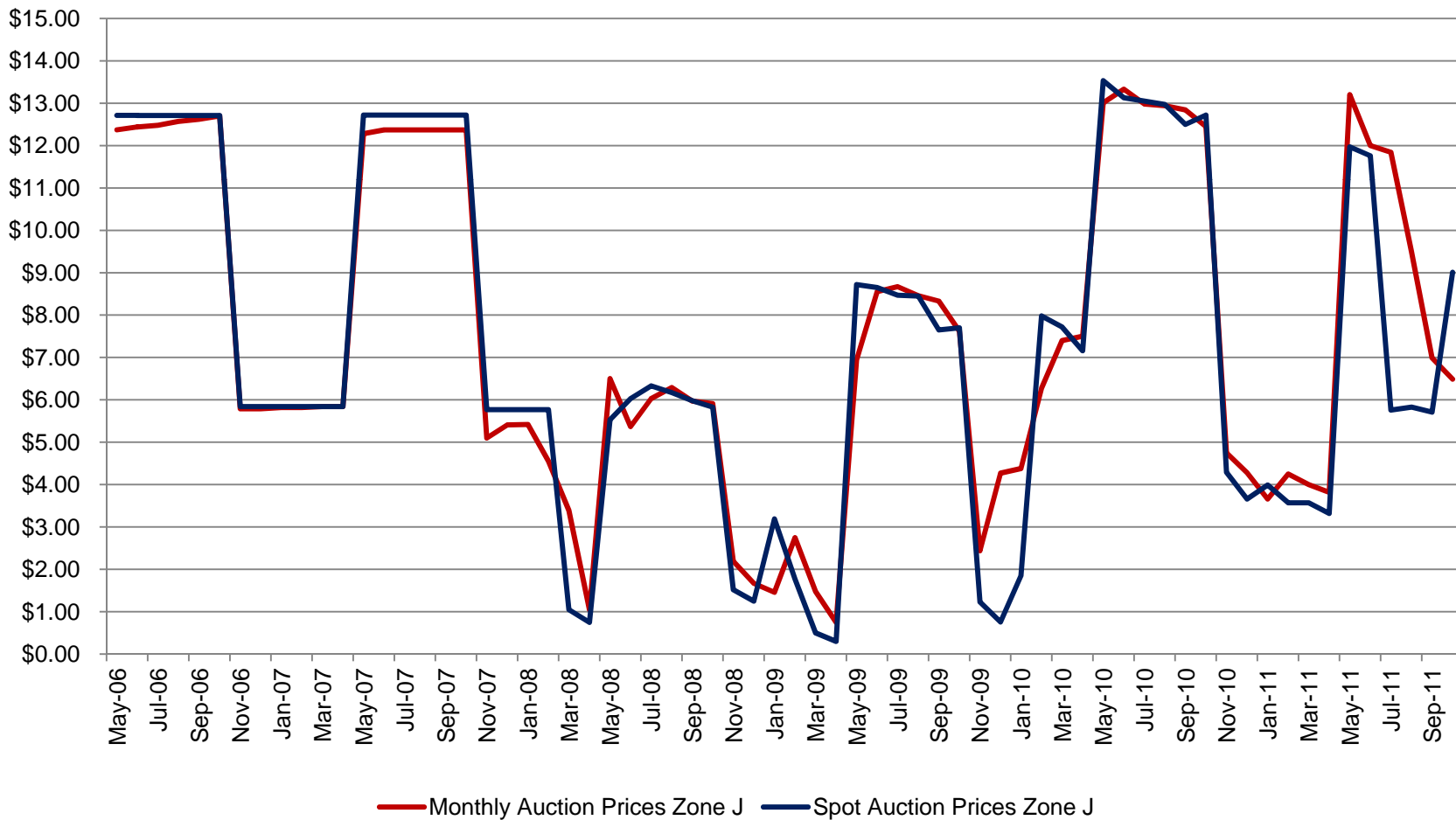
# ICAP Spot Market Exposure: Proposed Bidding Requirement

- ◆ 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.*
  - *Ability to deploy changes in 2012.*

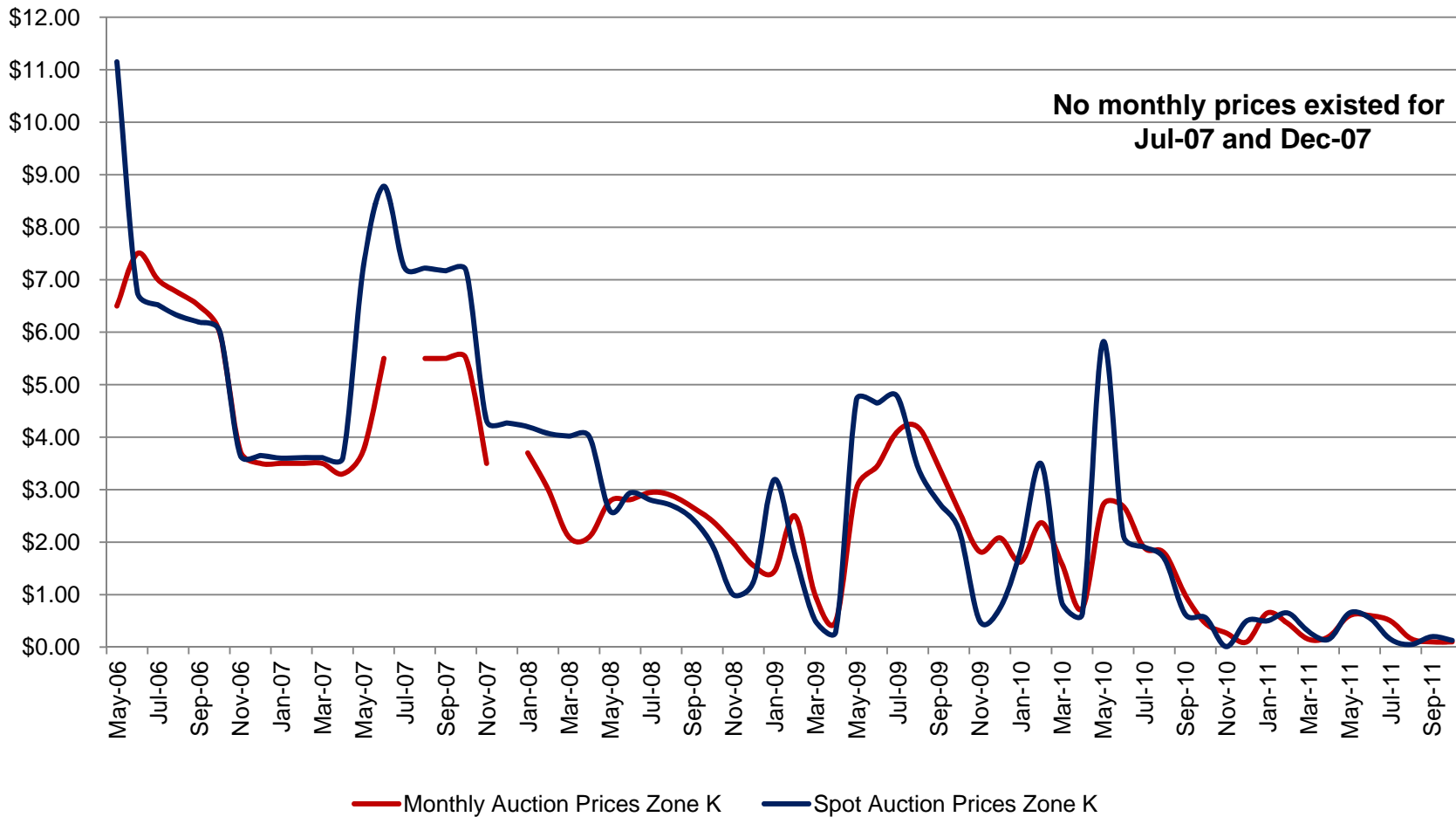
# ICAP Spot Market Exposure: Analysis

- ◆ 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.*

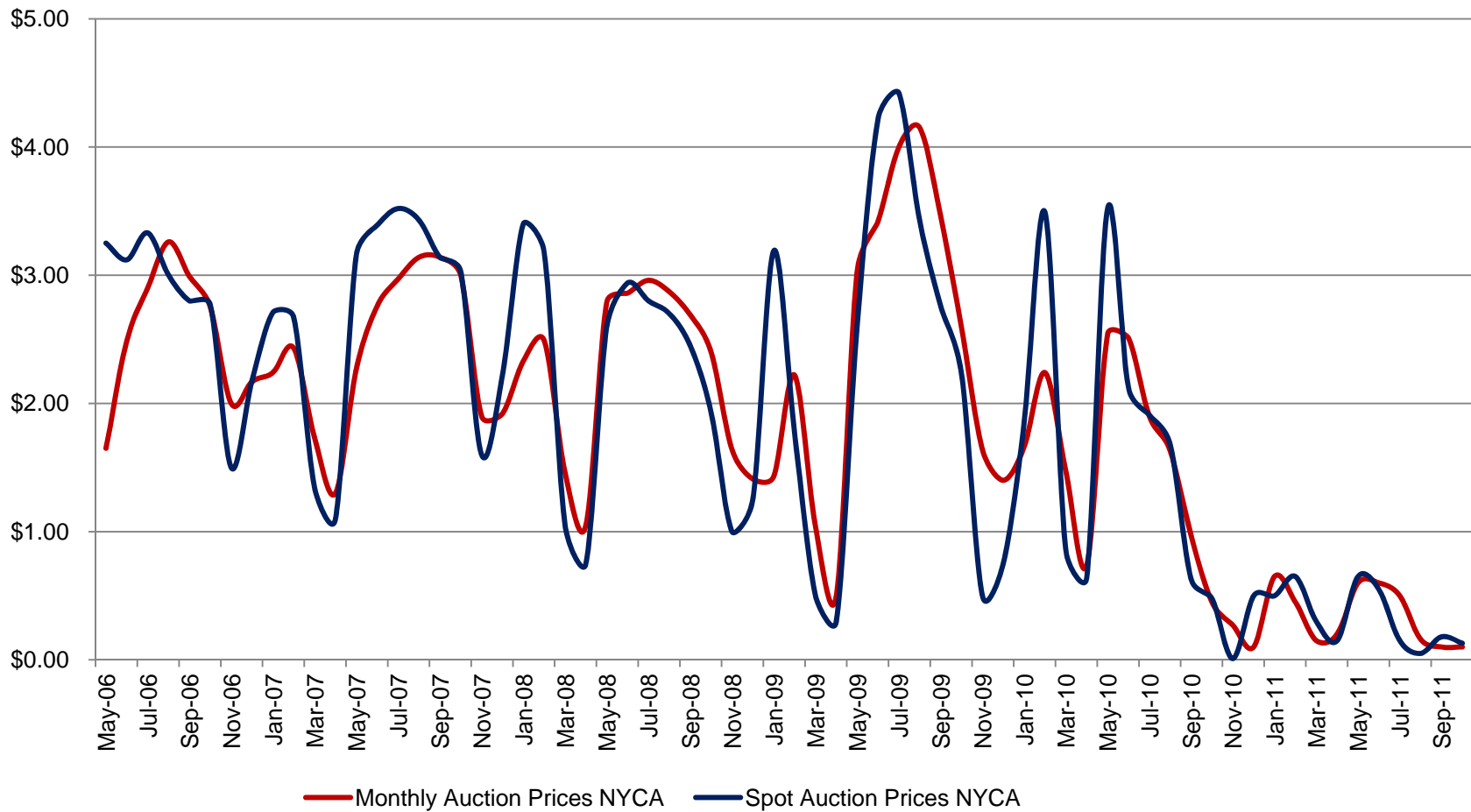
# Monthly Price vs. Spot Price: Zone J



# 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 Margin

- ◆ Adding a margin of 25% to the monthly auction price in Zone J identified the following:
  - *NYISO would have had sufficient collateral to cover approximately 99.5% of deficiency payments from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 40% during the same time 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	\$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



# ICAP Spot Market Exposure: Analysis – Zone K Margin

- ◆ Adding a margin of 100% to the monthly auction price in Zone K identified the following:
  - *NYISO would have had sufficient collateral to cover approximately 99.5% of deficiency payments from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 52% during the same time 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	\$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

# ICAP Spot Market Exposure: Analysis – NYCA Margin

- ◆ Adding a margin of 100% to the monthly auction price in NYCA identified the following:
  - *NYISO would have had sufficient collateral to cover approximately 99.5% of deficiency payments from May 2006 through October 2011.*
  - *Collateral requirements would have been reduced by approximately 58% during the same time period.*

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

# 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, margins by location are recommended as follows:
  - *Zone J = 25%*
  - *Zone K = 100%*
  - *NYCA = 100%*

# 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:*
    - [Monthly Auction Price + (Margin \* Monthly Auction Price)] \* 1,000 \* Deficient MWs
  - plus
  - [Monthly Auction Price + (Margin \* Monthly Auction Price)] \* 1,000 \* ½ Spot Percent \* Requirement MWs

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

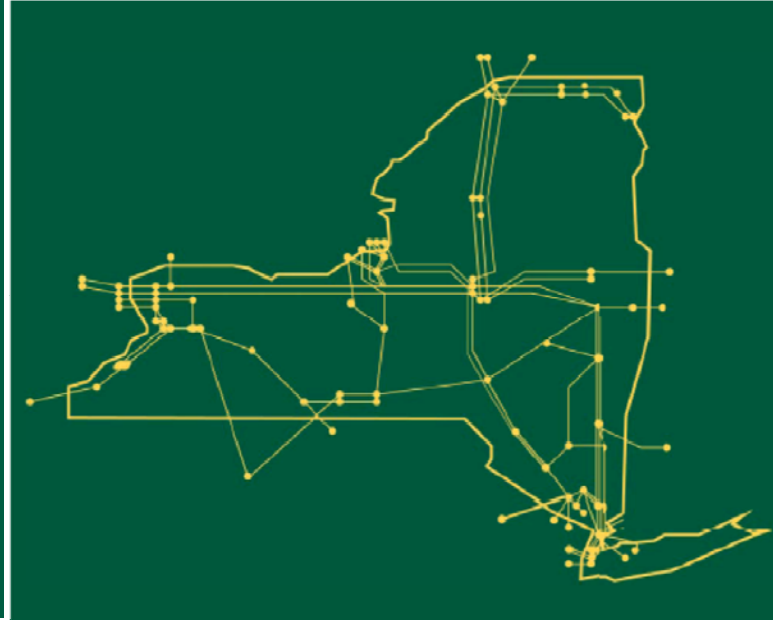
- ◆ If no monthly auction price exists, the calculation would use the last available monthly price for that location.
  - *Historically this has only occurred twice in Zone K*

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# Next Steps

- ◆ BOD June/July 2012
- ◆ FERC Filing June/July 2012
- ◆ Implementation October 2012
- ◆ Additional analysis to be evaluated next year
  - *Evaluation of market design alternatives to be discussed with Market Participants throughout 2013.*
  - *Any recommended design change will subsequently need to be prioritized as a future project for deployment in NYISO's Credit Management System.*

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