

Overview of the New ICAP In-City Mitigation Rules

New York Independent System Operator

***NYISO Market Participant Training
April 10, 11 & 15, 2008***

DRAFT – for Discussion Purposes Only

Training Session Overview

- ◆ Background
- ◆ Overview of new mitigation measures for NYC
 - *Pivotal supplier test*
 - *Default reference price*
 - *Unit-specific adjusted reference price*
- ◆ Review of changes to ICAP Market System user screens
 - *Affiliate/bidding agent information*
 - *Default and unit-specific adjusted reference prices*
 - *Inserting offers*
 - *Maintaining offers*
 - *Uploading offers*
- ◆ Schedule

Background

- ◆ In response to FERC's July 6, 2007 order in Docket No. EL07-39, the NYISO proposed new market power mitigation measures for NYC on October 4, 2007
- ◆ On March 7, 2008, FERC conditionally approved the NYISO's proposal, as modified, and directed the NYISO to file tariff sheets within 60 days
- ◆ On March 20, 2008, the NYISO filed tariff sheets addressing only supply-side mitigation measures
 - *FERC made effective on March 27, 2008, prior to the Summer 2008 Capability Period Auction on March 28, 2008*

Services Tariff Revisions

- ◆ Historical divested generation owner mitigation removed, such as offer caps, revenue caps, and restriction on bilateral transactions
- ◆ Initial compliance filing addressed only supplier mitigation
 - *FERC granted two waivers*
 - *Additional tariff changes for supplier mitigation under review and may be included in later compliance filing*
- ◆ Tariff revisions for mitigation measures related to uneconomic entry to be addressed in subsequent NYISO filing by early May
 - *Uneconomic entry measures do not apply to existing generation*

Pivotal Supplier Mitigation

- ◆ New mitigation measures for pivotal suppliers in NYC
 - *Pivotal suppliers must offer available capacity into the spot auction*
 - Available capacity determined at certification and is all capacity except that sold in earlier auction or certified bilateral transactions
 - Charge for failure to offer capacity ($1.5 \times \text{spot price} \times \text{portfolio MW}$)
 - *Pivotal suppliers' offers in spot auction limited to higher of the default reference price or, if applicable, a unit-specific adjusted reference price*

Pivotal Supplier Mitigation

- ◆ Allows generator owners to submit going-forward costs for a unit-specific reference price
- ◆ Pivotal supplier test requires that MPs submit affiliate and bidding agent information
- ◆ Exports by NYC pivotal suppliers prohibited
 - *NYISO will review and revise this rule as necessary when submitting tariff language in early May*
- ◆ MPs must report bilateral transactions via the ICAP Market System

Pivotal Supplier Mitigation

- ◆ Pivotal Supplier Test

- *Examines control of NYC capacity whether by ownership, contract, or as bidding agent*
- *Done on portfolio basis, including affiliates and bidding agents, as appropriate*
- *For each portfolio, sum the adjusted net market positions of each entity in the portfolio*
 - Adjusted net market position is the net position plus uncertified capacity plus the minimum of either bilateral sales (excluding self supply) or generation UCAP
 - Negative adjusted net positions (short positions) are not considered in the portfolio calculation
- *If portfolio's MWs controlled is greater or equal to 500 MW and the amount of NYC capacity in excess of the minimum locational requirement, then all capacity in portfolio is pivotal and subject to must offer requirement at reference price*

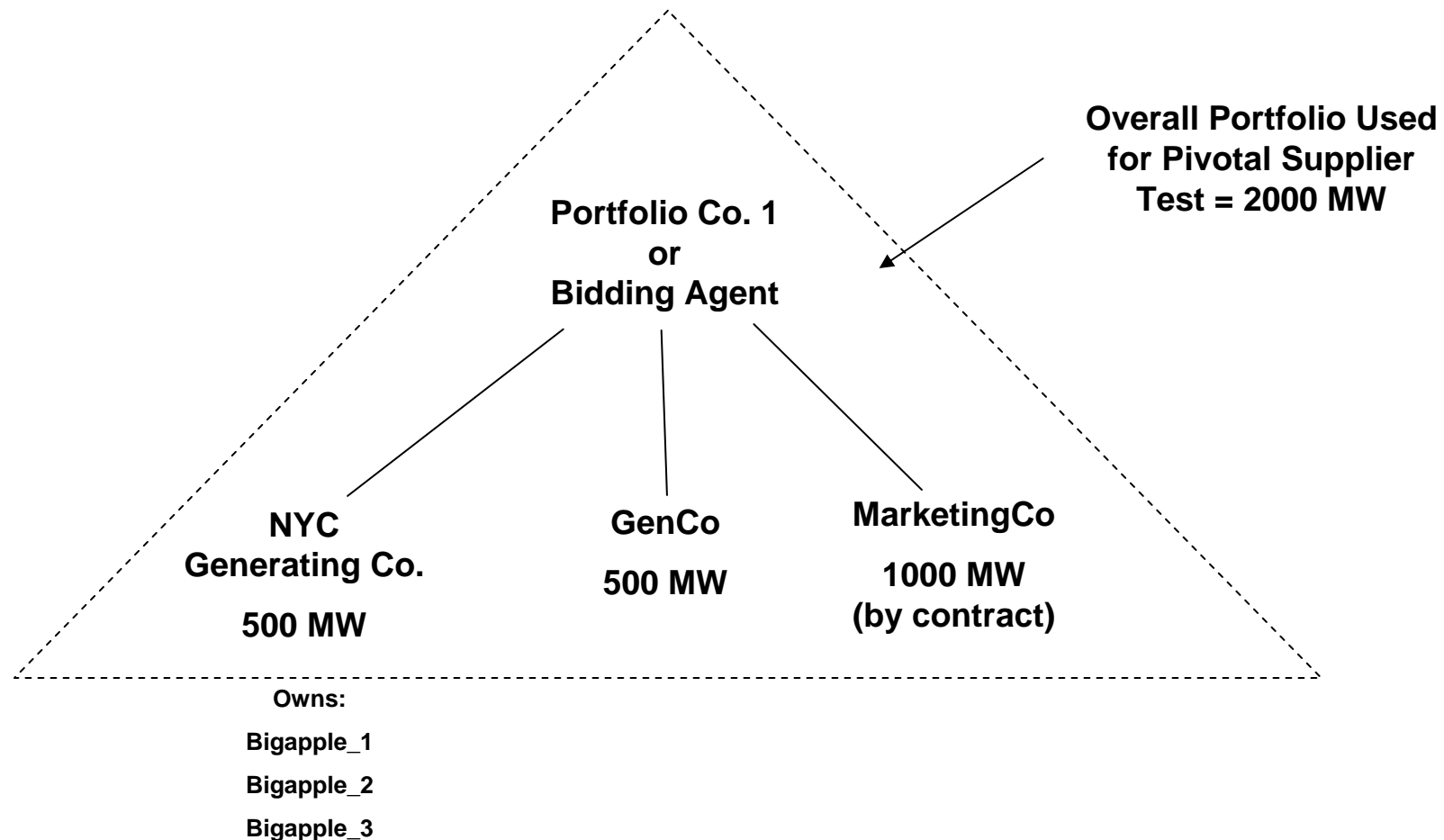
Pivotal Supplier Mitigation

- ◆ Pivotal Supplier Test

- *The owner of a capacity resource is presumed to retain control over that resource for purposes of the pivotal supplier test until the owner demonstrates otherwise*
 - Control is either the ability to determine the quantity or price of an offer to supply UCAP from an In-City supplier into a spot auction or the right to revenue or other financial benefit from such capacity
 - Sale in Capability Period or Monthly Auction rebuts the presumption of control
 - 90-day waiver of ability to rebut presumption of control due to ownership in effect

Pivotal Supplier Mitigation

- ◆ Example of Portfolio Approach



Pivotal Supplier Mitigation

- ◆ Example of portfolio calculation

Entity	Gen UCAP	Purchases	Sales	Net Position	Adj Net Mkt Position
NYC Generating Co.	500 MW	1000 MW	200 MW	1300 MW	1500 MW
GenCo	500 MW	0 MW	0 MW	500 MW	500 MW
MarketingCo	0 MW	1000 MW	1100 MW	-100 MW	0 MW
Portfolio MW = 2000 MW					

- ◆ Assuming NYC Min. Locational Req. is 9000 MW and total NYC UCAP is 10000 MW, excess is 1000 MW
- ◆ 2000 MW portfolio would be pivotal and subject to must offer at reference price

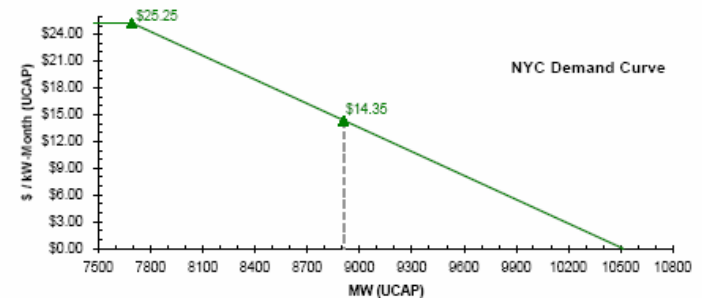
Pivotal Supplier Mitigation

- ◆ Example Default Reference Price Calculation
 - *Example shown is intended to illustrate how the default reference price will be calculated*
 - *Example uses the most current information available to the NYISO but should not be relied upon for any purpose; the actual default reference price will be calculated monthly after certification*
 - *Example is for illustration purposes only*

Parameter	Label	ICAP	UCAP	Remarks
EFORD	A	- - -	6.9%	Per ICAP/UCAP translation of demand curve ¹
NYC reference price (\$/kW-mo), 100% LCR	B	\$13.36	\$14.35	Per ICAP/UCAP translation of demand curve ¹
NYC load forecast (MW)	C	11964	- - -	LCR study ²
80% * C	D	9571	8911	- - -
Demand curve zero crossing point (MW)	E	- - -	10515	Per ICAP/UCAP translation of demand curve ¹
Generator UCAP (MW), May 2008	F	- - -	9353	Generator DMNC values as of May 2008, adjusted for EFORD
SCRs (MW)	G	- - -	450	Footnote 3
Available UCAP MW (F+G)	H	- - -	9803	- - -
Default reference price, \$/kW-mo	I	- - -	\$6.37	- - -
$B * (E - H) / (E - D)$				
Sensitivity (\$/kW-mo)/100 MW	J	- - -	-\$0.89	Per ICAP/UCAP translation of demand curve ¹

Footnotes:

- Available at http://www.nyiso.com/public/webdocs/products/icap/auctions/Summer-2008/documents/DemandCurveSummer2008_FINAL_posting.pdf
- Available at https://www.nyiso.com/secure/webdocs/committees/oc/meeting_materials/2008-02-28/LocationalMinimumICAPRequirementsStudy.pdf
- Estimate based on registered levels of 316 MW (April 2007), 446 MW (May 2007) and 357 MW (April 2008).



Pivotal Supplier Mitigation

- ◆ Unit-Specific Reference Price
 - *NYC generation owners may submit going forward costs for a unit*
 - Generally, going forward costs are either (1) those costs that could be avoided if the unit was taken out of service (*i.e.*, mothballed) or retired, as applicable, net of energy and ancillary services revenues, or (2) net opportunity costs of foregone sales outside NYC
 - Costs related to pollution control equipment (not already incurred) to meet environmental standards can be considered in going forward cost calculation
 - *NYISO will determine seasonally adjusted net going forward cost figure on a \$/kW-month basis not later than seven calendar days prior to auction*
 - Expires in twelve months unless updated

Changes to ICAP Market System


- ◆ Affiliate/Bidding Agent Info

- *All entities able to participate in the ICAP markets were required to submit their affiliate and bidding agent information by April 3, 2008*
- *This information is being used to link entities to portfolios*
- *The portfolios to which an entity belongs can be seen on the “Supply-Side In-City Mitigation Summary” page*
 - Displays what portfolios were deemed pivotal
 - If any of the portfolios listed have a “Yes,” capacity must be offered at reference price (default or unit-specific, described above)
 - Summary information will be visible after certification but before the spot auction opens

Changes to ICAP Market System

- ◆ Affiliate/Bidding Agent Info
 - *“Supply-Side In-City Mitigation Summary” page displays only the portfolios to which an entity is linked; other affiliate associations submitted to Market Monitoring will not be visible*
 - *In order to update or change affiliate or bidding agent information, contact your customer service representative prior to certification*

Supply-Side In-City Mitigation Summary


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MP Name: NYC Generating Company Month: May/2008 [Display](#)

Supply-Side In-City Mitigation Summary

Current In-City Mitigation Parameters

MP Name	NYC Generating Company	Month	May/2008
Default Reference Price		Current Eastern Time	01-Apr-2008 12:00:00
Pivotal Control Threshold NYC		Posted Date	

Affiliate Portfolio Information

Affiliate	Subject To Mitigation?
Portfolio Co. 1	Results Not Yet Posted.

NYC Generator Information

Generator	Adjusted Reference Price
00001 -- BIGAPPLE__1	
10002 -- BIGAPPLE__2	17.50
20003 -- BIGAPPLE__3	


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You are logged in as ICAPUSER (Logout)

Changes to ICAP Market System

- ◆ The default reference price and the generator-specific adjusted reference price are visible on the “Supply-Side In-City Mitigation Summary” page
 - *If any of the generators listed do not have an adjusted reference price, then the default reference price would apply if part of pivotal supplier portfolio*

Supply-Side In-City Mitigation Summary


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Auction Mitigation Certify Bids/Offers Load Forecast Calendar EFORD DMNC SCR Upload/Download Billing

MP Name: NYC Generating Company Month: May/2008 Display

Supply-Side In-City Mitigation Summary

Current In-City Mitigation Parameters

MP Name	NYC Generating Company	Month	May/2008
Default Reference Price	4.20	Current Eastern Time	01-Apr-2008 12:00:00
Pivotal Control Threshold NYC	1,187.7	Posted Date	07-Apr-2008 10:31:51

Affiliate Portfolio Information

Affiliate	Subject To Mitigation?
Portfolio Co. 1	No
Portfolio Co. 2	Yes

NYC Generator Information

Generator	Adjusted Reference Price
00001 – BIGAPPLE__1	
10002 – BIGAPPLE__2	17.50
20003 – BIGAPPLE__3	

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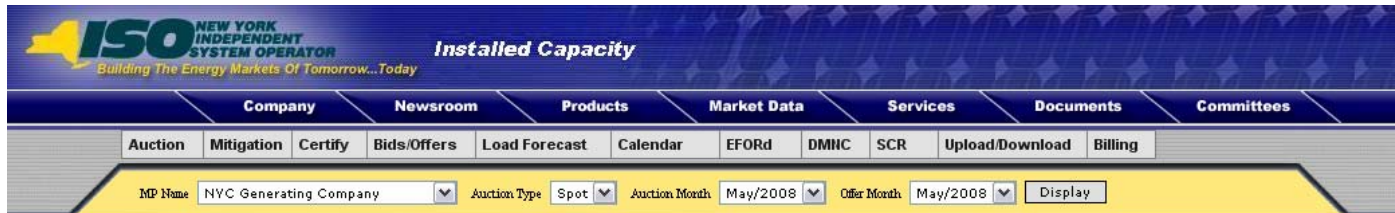
Changes to ICAP Market System

- ◆ Inserting offers to sell
 - *If an offer is subject to pivotal supplier mitigation, the offer price cannot exceed the reference price; otherwise, an Offer Validation Error will be displayed:*

NYC Offer for x.x MW and x.xx \$/kW/Month exceeds the Reference Price of y.yy \$/kW/Month

- If an Offer Validation Error occurs, an offer must be re-entered until notice is received that it passed validation

Inserting Offers to Sell

The header of the ISO-NY website includes the logo and tagline "Building The Energy Markets Of Tomorrow...Today". Below this is a navigation bar with tabs for Company, Newsroom, Products, Market Data, Services, Documents, and Committees. A secondary bar contains links for Auction, Mitigation, Certify, Bids/Offers, Load Forecast, Calendar, EFORD, DMNC, SCR, Upload/Download, and Billing. The main form area has dropdown menus for MP Name (NYC Generating Company), Auction Type (Spot), Auction Month (May/2008), and Offer Month (May/2008), followed by a Display button.

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Auction Mitigation Certify Bids/Offers Load Forecast Calendar EFORD DMNC SCR Upload/Download Billing

MP Name NYC Generating Company Auction Type Spot Auction Month May/2008 Offer Month May/2008 Display

Insert Offers to Sell

Current Status			
MP Name	NYC Generating Company	Eastern Time	07-Apr-2008 11:13 AM
Auction Type	Spot	Offer Period Closes	30-Apr-2008 12:59 AM
Auction Month	May/2008	Offer Month	May/2008

Add To Cart			
Location	PTID	Offer MW	Offer \$/kW/Month
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="button" value="Add to Cart"/>			


Error Message(s)

1. NYC Offer for 0.1 MW and 5.00 \$/kW/Month exceeds the Reference Price of 4.20 \$/kW/Month

Insert Offers to Sell

Location	PTID	Offer MW	Offer \$/kW/Month	Offer Total	Delete From Cart
Cart does not contain any offers.					

Inserting Offers to Sell


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Auction Mitigation Certify Bids/Offer Load Forecast Calendar EFORd DMIC SCR Upload/Download Billing

MP Name: NYC Generating Company Auction Type: Spot Auction Month: May/2008 Offer Month: May/2008 Display

Insert Offers to Sell

Current Status

MP Name	NYC Generating Company	Eastern Time	07-Apr-2008 11:17 AM
Auction Type	Spot	Offer Period Closes	30-Apr-2008 12:59 AM
Auction Month	May/2008	Offer Month	May/2008

Add To Cart


Location	PTID	Offer MW	Offer \$/kW/Month
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Add to Cart

Error Message(s)

1. NYC Offer for 0.1 MW and 17.51 \$/kW/Month exceeds the Reference Price of 17.50 \$/kW/Month

Insert Offers to Sell


Location	PTID	Offer MW	Offer \$/kW/Month	Offer Total	Delete From Cart
NYC	10002 -- BIGAPPLE__2	0.1	\$5.00	\$500.00	
Total				\$500.00	

Save

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Maintaining Offers to Sell


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Auction Mitigation Certify Bids/Offers Load Forecast Calendar EFORD DMHC SCR Upload/Download Billing

MP Name: NYC Generating Company Auction Type: Spot (Summer/2008) Auction Month: May/2008 Offer Month: May/2008 Display

Maintain Offers to Sell

Current Status

MP Name	NYC Generating Company	Eastern Time	07-Apr-2008 12:12 PM
Auction Type	Spot (Summer/2008)	Offer Period Closes	30-Apr-2008 12:59 AM
Auction Month	May/2008	Offer Month	May/2008

Error Message(s)

1. NYC Offer for PTID 00001 -- BIGAPPLE__1 and 0.1 MW and 4.22 \$/kW/Month exceeds the Reference Price of 4.20 \$/kW/Month
2. NYC Offer for PTID 10002 -- BIGAPPLE__2 and 0.1 MW and 17.51 \$/kW/Month exceeds the Reference Price of 17.50 \$/kW/Month

Maintain Offers to Sell

Offer Number	Location	PTID	Mitigated Generator Group	Offer MW	Offer \$/kW/Month	Offer Total	Last Updated By	Last Update Date	Move After	Delete
1	NYC	00001 -- BIGAPPLE__1		0.1	4.22	\$422.00		07-Apr-2008 12:08 PM	<input type="checkbox"/>	<input type="checkbox"/>
2	NYC	10002 -- BIGAPPLE__2		0.1	17.51	\$1,751.00		07-Apr-2008 12:08 PM	<input type="checkbox"/>	<input type="checkbox"/>

Save

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Uploading Offers to Sell

TIME_STAMP=04/07/2008 12:51

QUERY_TYPE=UCAP_UPLOAD_OFFER

DATA_ROWS=0

MESSAGE=NYC Offer for 0.1 MW and 4.22 \$/kW/Month exceeds the Reference Price of 4.20 \$/kW/Month

Schedule

- ♦ March 27 – deployed software to remove historical DGO mitigation prior to Summer 2008 auctions
- ♦ April 3 – deadline for submitting going forward cost information for May ICAP Spot Market Auction
- ♦ April 10, 11, 15 – MP training on ICAP rule changes
- ♦ April 21 – deployment of software to implement supply-side mitigation measures
- ♦ April 22 – post default reference price for May ICAP Spot Market Auction
- ♦ April 23 – May ICAP Spot Market Auction opens (8 am)
- ♦ April 24 – May ICAP Spot Market Auction closes (5 pm)
- ♦ April 28 – NYISO posts results of the May ICAP Spot Market Auction (5 pm)
- ♦ May 2 – last day to submit going forward cost information for June ICAP Spot Market Auction (waiver timeline)
- ♦ For July ICAP Spot Market Auction, 50 business day tariff rule in effect for submitting going forward costs
- ♦ By May 6 – NYISO to file additional tariff sheets addressing remainder of March 7 FERC order

Questions?



The New York Independent System Operator (NYISO) is a nonprofit corporation that began operations in 1999 to facilitate the restructuring of New York's electric industry. The NYISO operates the state's bulk electricity grid and administers New York's wholesale electricity markets.

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