

Market Monitoring and Mitigation Procedures in the Installed Capacity Market

NYISO Installed Capacity Working Group

Albany, NY

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Market Monitoring & Mitigation in Energy and A/S Markets

Attachment H to the Services Tariff describes the procedures that the NYISO uses to monitor whether market power is being exercised, and the steps it will take to mitigate market power when it is exercised and has a significant impact.

- **It consists of 29 pages, most of which is a detailed description of the application of these rules to the energy, OR and regulation markets, including detailed discussion of the procedures for:**
 - *Calculating reference levels for bids.*
 - *Calculating conduct thresholds.*
 - *Calculating impact thresholds for energy prices and BPCG payments.*
 - *And much more...*

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Market Monitoring & Mitigation in the ICAP Market

In contrast, the complete description of the procedures that the NYISO will use to monitor whether market power is being exercised in the ICAP market, and the measures it will undertake to mitigate the exercise of market power in that market, is contained in § 4.5 of Att. H.

- **Section 4.5a reads:**

“If and to the extent that sufficient installed capability is not under a contractual obligation to remain available to serve load in New York and if physical or economic withholding of installed capability would be likely to result in a material change in the price for installed capacity for all or some portion of New York, the ISO, in consideration of the comments of the Market Parties and other interested parties, shall amend this Addendum, in accordance with the procedures and requirements for amending the Plan, to implement appropriate mitigation measures for installed capacity markets.”

- **The remainder of § 4.5 deals with the application of a price cap to most in-city capacity and must-offer requirements applicable to that capacity.**

Reasons to Augment Market Monitoring Procedures for the ICAP Market

In other words, we'll worry about market power in ICAP markets if and when we have a reason to worry about it.

There may now be reasons to worry about it, related to:

- **Recent behavior in the New York ICAP market.**
- **Changes in New England's and PJM's ICAP markets.**

Agenda

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- **Recent behavior in the New York ICAP market.**
 - **Changes in New England's and PJM's ICAP markets.**

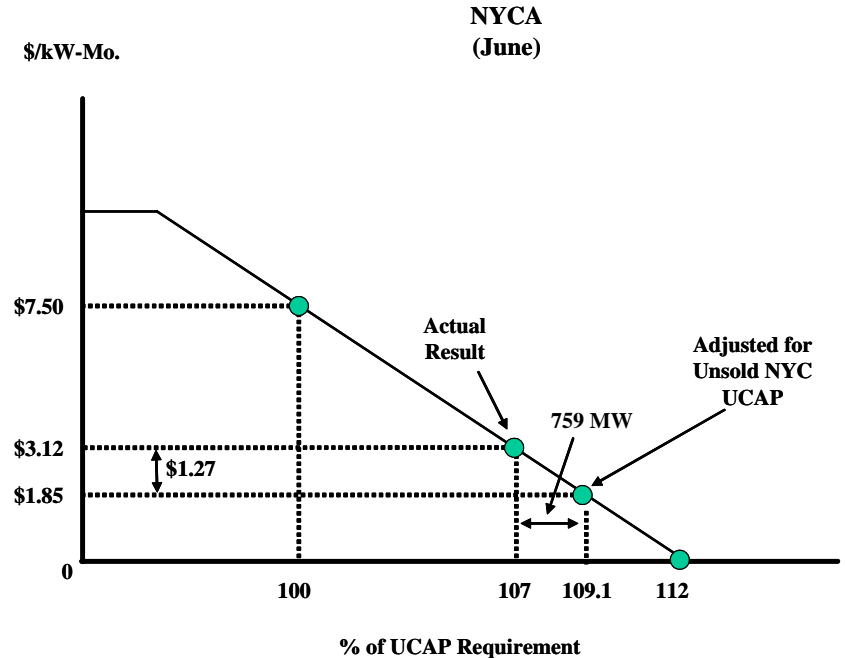
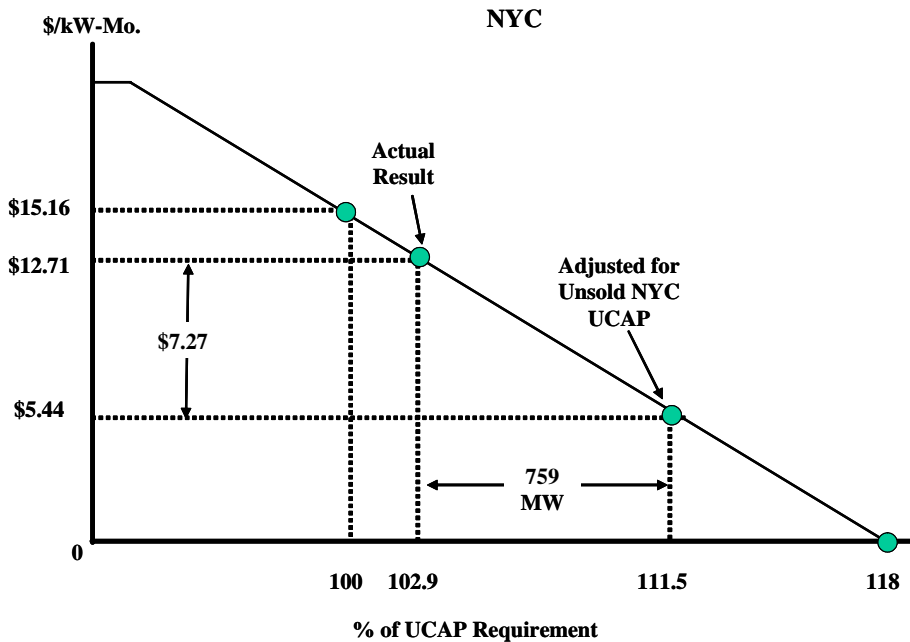
Recent Behavior of ICAP Market in NYC

As we all know, questions have been raised regarding recent behavior in the ICAP market in New York City. As PSC Staff described at the June 12 ICAP WG meeting:

- **9054 MW of UCAP in NYC were used to provide UCAP in May and June (and in July as well).**
- **The sum of the DMNCs of these resources should be about $9054 / (1 - .0542) = 9573$ MW.**
- **A total of about 10,375 MW of ICAP should be able to sell into the ICAP market in NYC.**
- **Therefore, about 802 MW of NYC resources were not used to provide ICAP.**
- **These resources should be able to provide about $802 \times (1 - .0542) = 759$ MW of UCAP.**

Effect of Unsold NYC UCAP

Not selling 759 MW of NYC UCAP would have caused NYC prices to increase by \$7.27/kW-mo., while the effect on ROS prices could have been as great as \$1.27/kW-mo.



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Need for Additional Development of Market Monitoring Procedures

As we also all know, the NYISO has asserted that it has no authority to mitigate any withholding in the ICAP market by the divested generation owners (DGOs), should it occur.

- **In a letter sent by Mark Lynch to FERC on June 7, he stated, “the NYISO has concluded that it does not have authority to take further action with respect to bidding in the New York City capacity markets.”**

However, suppose a situation were to arise in which:

- **Substantial amounts of UCAP were not being sold, causing the price to be significantly higher than it would have been if that capacity had been sold.**
- **The NYISO did *not* believe it was precluded from taking action.**

Need for Additional Development of Market Monitoring Procedures (cont.)

In order for it to be able to deal with such a situation, the NYISO ought to have procedures in place for:

- **Identifying what constitutes impermissible withholding in the ICAP market.**
- **Defining what will be done if impermissible withholding occurs in the ICAP market.**

The current situation demonstrates the need for the NYISO to define and implement such procedures to apply in other similar situations, even if it would not have applied them to the DGOs.

- **Better defined market monitoring and mitigation procedures would make any exceptions to these procedures clearer.**
 - *Note that the NYISO's tariffs do not contain any provisions explicitly shielding any in-city generators from market monitoring and mitigation in the ICAP market.*
 - *Mark Lynch's letter to FERC cited a FERC order, not the NYISO's tariffs.*

Recent Behavior of ICAP Market Outside NYC

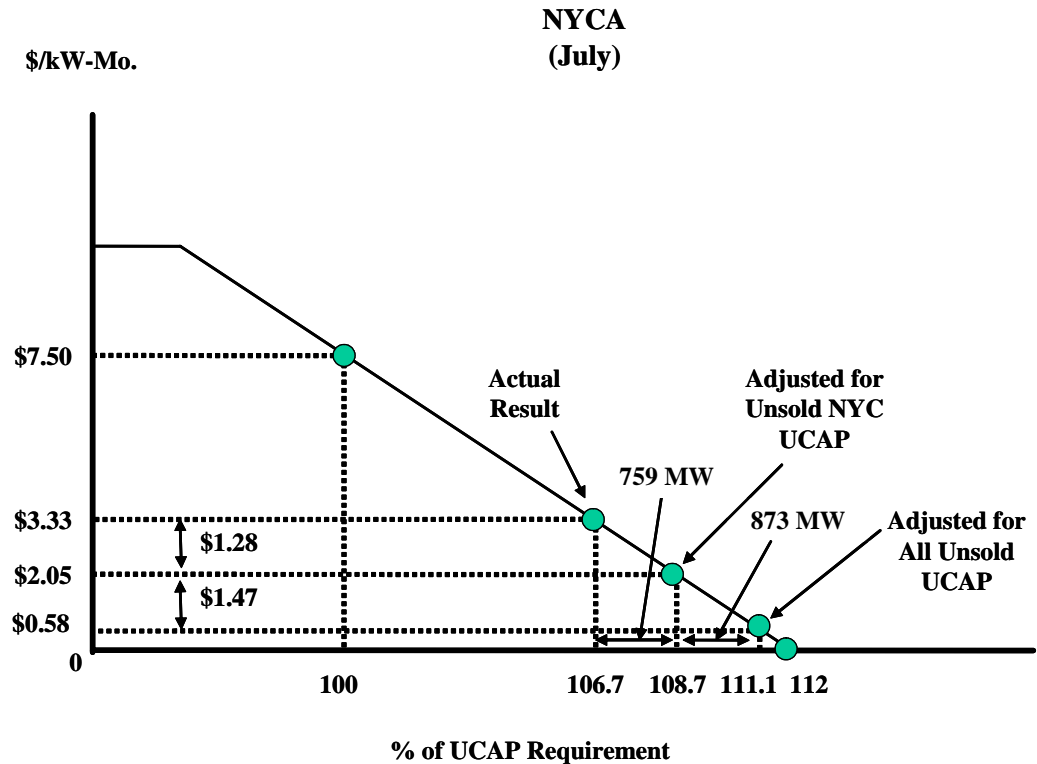
Consider the recent behavior of the ICAP market outside NYC. In addition to the unsold NYC UCAP, there has recently been a substantial amount of unsold UCAP outside NYC. Not selling that UCAP has caused ROS prices to increase.

- In July, 2481 MW in excess of the 37,154 MW minimum requirement were procured, so 39,636 MW of UCAP were provided in New York.
- The sum of the DMNCs of these resources should be about $39,636 / (1 - .0543) = 41,911$ MW, using the average EFORd for the NYCA for translation.
- However, a total of 43,636 MW of ICAP should be able to sell into the ICAP market:
 - *38,956 MW from generating resources within the NYCA listed in the Gold Book*
 - *2755 – 273 = 2482 MW from imports, net of exports (per the Gold Book)*
 - *1168 MW from SCRs (from PSC Staff calculations for NYC; per GB outside NYC)*
 - *330 MW from the Cross-Sound Cable*
 - *500 MW from SCS (from PSC Staff calculations)*
 - *200 MW from Cedars*
- Therefore, about 1725 MW of eligible resources did not provide ICAP.
 - *This amount of has been increasing slowly over the summer.*

Effect of Unsold UCAP Outside NYC

Since 802 MW of unsold NYC ICAP were included in the PSC Staff analysis, that leaves another 923 MW of unsold ICAP in ROS or Long Island. These resources should be able to provide about $923 \times (1 - .0543) = 873$ MW of UCAP.

- The effect of this 873 MW of unsold UCAP was to cause ROS prices to increase by as much as another \$1.47/kW-mo.
- Therefore, the price of ROS UCAP in July would have been \$2.75/kW-mo. lower if *all* unsold UCAP in the NYCA had been sold.



Need for Additional Development of Market Monitoring Procedures (cont.)

The preceding calculations were based on estimates.

- **Those estimates may be incorrect.**

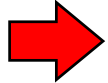
In addition, some of these resources that elected not to offer ICAP for sale in these auctions may have valid reasons for doing so.

- **Similarly, some of the bids submitted by resources that caused their ICAP not to be purchased may have reasonably reflected their going-forward costs.**

But the NYISO's market monitoring and mitigation procedures ought to contain procedures for reviewing bids if they seem to be inconsistent with going-forward costs and have a significant impact on prices.

Agenda

- Recent behavior in the New York ICAP market.
- Changes in New England's and PJM's ICAP markets.



Changes in Adjoining ICAP Markets

Another factor we should consider is changes in adjoining ICAP markets.

- **Recently, FERC accepted ISO-NE's proposal with FERC for a "Forward Capacity Market" (FCM), which was part of a LICAP settlement that was supported by most interested stakeholders.**
- **In April, FERC issued an order stating that it "finds that certain elements of [PJM's] RPM proposal may form the basis for a just and reasonable capacity market," although it also stated that it "cannot at this time find that the RPM proposal is the just and reasonable replacement for the current capacity construct."**
 - ***Settlement judge proceedings regarding the RPM are underway.***

Effect of These Changes on ICAP Prices

While there are important differences between the FCM and the RPM, there are some important similarities.

- **One similarity is their likely impact on ICAP prices. The FCM and RPM are likely to cause significant increases in ICAP prices in New England and PJM.**
 - *Increased ICAP payments under the FCM transition period would begin in December 2006.*
 - *The RPM proposal does not appear to include a transition period at this time. PJM has proposed that the proposal become effective on June 1, 2007, so it would not affect the price of ICAP available to New York until mid-2011.*

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Effect of These Changes on Ability to Exercise Market Power in New York ICAP Markets

To date, New York has been able to rely on inexpensive ICAP imports to offset the impact of any attempts to exercise market power on the supply side of the ICAP market. But FCM and RPM will reduce the amount of inexpensive ICAP imports available to New York.

- **The elimination of inexpensive imports from New England alone may not have a significant effect, as a total of 2555 MW can be imported from other control areas, only 200 MW less than the current limit.**

Proposed Market Power Mitigation Mechanisms in Adjoining Markets

Another similarity between the FCM and the RPM pertains to their approach to monitoring for the exercise of market power, and mitigating its impact.

- **Both propose detailed mechanisms for limiting the impact that the exercise of market power may have on the price of ICAP.**

Market Power Mitigation Mechanism for New England

Specifically, under ISO-NE's FCM:

- **The price paid to entities supplying ICAP using existing capacity initially will be limited to a range from 0.6 and 1.4 times the net cost of entry, limiting the potential returns to withholding.**
- **Insufficient competition rules that are intended to ensure competitive outcomes limit payments to existing capacity to 1.1 times the net cost of entry when:**
 - *Insufficient capacity is offered in the system (or a zone within the system).*
 - *The total amount of new capacity offered is small relative to the amount needed to meet ICAP requirements.*
- **If existing capacity is temporarily or permanently de-listed or exported, the amount of capacity purchased to replace it will depend on the price, and will be reduced at higher prices, thereby reducing incentives to withhold capacity through de-listing or exporting.**
 - *This limits the ability for de-list and export bids to set the market-clearing price.*
- **The market monitor will review and, in some cases, determine whether to accept:**
 - *De-list and export bids to ensure that they are consistent with net risk-adjusted going-forward and opportunity costs, taking into account inframarginal rents, availability adjustments, and peak energy rent deductions.*
 - *Offers of capacity below summer capability levels, to ensure they do not constitute physical withholding.*
 - *New capacity and de-list bids submitted by the same entity, to ensure that the new capacity is not inappropriately substituted for the de-listed resource.*
 - *New capacity and new import bids below 0.75 times the net cost of entry, to ensure they are consistent with the long-run average costs of the supplying resource.*

Market Power Mitigation Mechanism Proposed for PJM

And under PJM's RPM proposal:

- **PJM's market monitoring unit will apply preliminary market structure screens to the ICAP market as a whole, and each constrained area within PJM, to assess whether mitigation is necessary.**
- **If mitigation is necessary, offer caps would be applied to existing resources if new entry is not required to meet ICAP requirements.**
 - *The offer for the amount of UCAP a resource can dependably supply would be capped at its avoidable costs.*
 - *The offer for additional UCAP that a resource may be able to supply, depending on its EFORd, would be capped at the net cost of entry.*
 - *Opportunity cost bids may be substituted if appropriately documented.*
 - *FERC has set these offer caps, as well as the screens to be used to determine when these caps will be applied, for hearing.*
- **The RPM also uses a downward-sloping demand curve, which will reduce incentives to exercise market power by reducing withholding's impact on price.**

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Planning Horizons and Susceptibility to Market Power

In addition, both the FCM and the RPM use long planning horizons (three years for the FCM, four years for the RPM).

- **These horizons are intended to be long enough to permit entry.**
- **This will further limit opportunities to exercise supply-side market power, as suppliers of ICAP will not be limited to entities with “iron in the ground.”**

In contrast, the NYISO, which is more vulnerable to the exercise of market power simply due to its short planning horizon, only has the general description contained in § 4.5a of Att. H of the Services Tariff.

Develop Market Monitoring and Mitigation Procedures for the ICAP Market Now

The NYISO should expeditiously begin to develop more detailed market monitoring and mitigation procedures for its ICAP markets.

- **This is advisable regardless of how the DGO issue is addressed.**
 - *Even if issues pertaining to the DGOs are set aside, the NYISO might have problems with the exercise of market power in its ICAP markets right now.*
 - *The future will see decreases in the availability of inexpensive imports that offset the impact of any attempts to drive up prices using market power.*

It is not clear whether all of the detail that is included in the FCM or RPM proposals is necessary, but the NYISO should assess this as it develops these procedures.

- **Measures in addition to those included in the FCM or RPM may be needed (primarily due to New York's short planning horizon).**