2014 State of the Market Report for the NYISO Markets: Capacity Market Highlights & Recommendations

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Installed Capacity Working Group Meeting May 28, 2015



Schedule for Review of 2014 SOM Report

- On 5/13: Report posted on NYISO website
- Presentation schedule:
 - ✓ 5/20 MIWG: Energy Market Highlights & Recommendations
 - ✓ 5/27 MC: Overview of Report & Recommendations
 - ✓ 5/28 ICAPWG: Capacity Market Highlights & Recommendations
- Comments/questions submitted by 5/26 will be posted on the NYISO website and addressed at the 5/28 ICAPWG.
- Comments/questions received after 5/26 will be addressed case by case.



Highlights and Market Summary: Capacity Market

- Capacity prices rose 24 percent in 2014 to average \$13.96/kW-month in New York City.
- Prices in Long Island and the Rest of State rose ~5 percent to average \$4.98 and \$4.51/kW-month, respectively.
- The increases in these areas were due to increased requirements because of higher peak load forecasts.
- A new capacity zone was created in Southeast New York, causing Lower Hudson Valley prices to rise 59 percent in 2014 to average \$8.08/kW-month.
 - This change is facilitating capacity additions that are lowering local New York City requirements.



Highlights and Market Summary: Average All-In Price by Region



See Sections I.A & III.A

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<u>Highlights and Market Summary:</u> Long-Term Price Signals – Net Revenue





Discussion of Recommendations

- The remaining slides provide an overview of recommendations in the following areas:
 - Reducing capacity costs through efficient procurement (Slides 7-8)
 - ✓ Compensation for transmission investment (Slide 9)
 - ✓ Pre-define locations in the capacity market (Slide 10)
 - ✓ Enhance buyer-side mitigation measures (Slide 11)



Lower Capacity Costs through Efficient Procurement: Recommendation 1 – High Priority

Implement location-based marginal cost pricing of capacity that minimizes the cost of satisfying planning reliability Criteria.

- Principle:
 - Price/Compensation = Reliability Value
- Approach:
 - Establish locational requirements than minimize the costs of satisfying reliability needs.

Benefits:

- Reduces the costs of satisfying resource adequacy criteria by tens of millions of dollars per year.
- Increases predictability of prices and market requirements for investors.

See Sections I.F, VIII.B, & XI



Lower Capacity Costs through Efficient Procurement: Capacity Prices as a Signal of Reliability Value

	Capacity Area							
	A-F	G-I	J	K	NYCA			
Annual Cost of a 0.001 LOLE Improvement at Demand Curve Reset Conditions	\$3.0M	\$1.8M	\$2.5M	\$1.0M				
Hypothetical Shift in Capacity:								
Adjustment (MW)	-120	0	-50	100	-70			
Estimated Resulting Change in LOLE	0.003	0.000	0.003	-0.006	0.000			
Estimated Change in Cost of Capacity	-\$10.0M	0.0	-\$7.3M	+\$5.9M	-\$11.3M			



Compensation for Transmission Investment: Recommendation 2

Grant financial capacity transfer rights between zones when investors upgrade the transmission system and help satisfy planning reliability needs.

- Principle:
 - Price/Compensation = Reliability Value
 - Approach:
 - ✓ Compensate transmission that helps satisfy planning reliability needs on a basis comparable to generation and demand response.
 - ✓ $\Delta TTC \times \Delta LOLE / \Delta TTC \times Demand Value in $/ \Delta LOLE$
 - Benefits:
 - Reduces capacity costs when a transmission solution is the most economic option.

Pre-define Locations in the Capacity Market: Recommendation 3

Pre-define interzonal interfaces or zones that address potential reliability needs and/or deliverability constraints to allow prices to accurately reflect the locational value of capacity.

- Principle:
 - Price/Compensation = Reliability Value
- Approach:
 - ✓ Define locations in the capacity market based on planning criteria.
- Benefits:
 - ✓ Reduces cost of satisfying planning criteria.
 - ✓ Lowers barriers to entry.
 - \checkmark Enables market to respond promptly to future retirements.



Enhance Buyer-Side Mitigation Measures: Recommendations 4 & 5

- 4. Enhance Buyer-Side Mitigation measures to deter uneconomic entry while ensuring that economic entrants are not mitigated.
 - a) Reform the Offer Floor for mitigated projects.
 - b) Modify the treatment of units being replaced, mothballed, and retired in forecasts of ICAP prices and net revenues.
- 5. Evaluate the need to expand buyer-side mitigation measures to address other actions that can suppress capacity prices.
- Principle:
 - ✓ Allow investment that is not designed to suppress capacity prices below competitive levels.

List of Recommendations: Capacity Market

	RE	COMMENDATION	Discussed in	Current Effort	High Priority	Scoping/Future
-	<u>Cap</u>	pacity Market Enhancements				
1	(1)	Implement location-based marginal cost pricing of capacity that minimizes the cost of satisfying planning reliability criteria.	VIII.B		Х	Х
	(2)	Grant financial capacity transfer rights between zones when investors upgrade the transmission system and help satisfy planning reliability needs.	VIII.C			Х
	(3)	Pre-define interzonal interfaces or zones that address potential reliability needs and/or deliverability constraints to allow prices to accurately reflect the locational value of capacity.	VIII.D			X
	(4)	Enhance buyer-side mitigation measures to deter uneconomic entry while ensuring that economic entrants are not mitigated.				
		(a) Reform Offer Floor for mitigated projects.	IV.C.2			
••		(b) Modify treatment of units being replaced, mothballed, and retired in forecasts of ICAP prices and net revenues.	IV.C.2	X		
	(5)	Evaluate the need to expand buyer-side mitigation measures to address other actions that can suppress capacity prices.	IV.C.2			X
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