

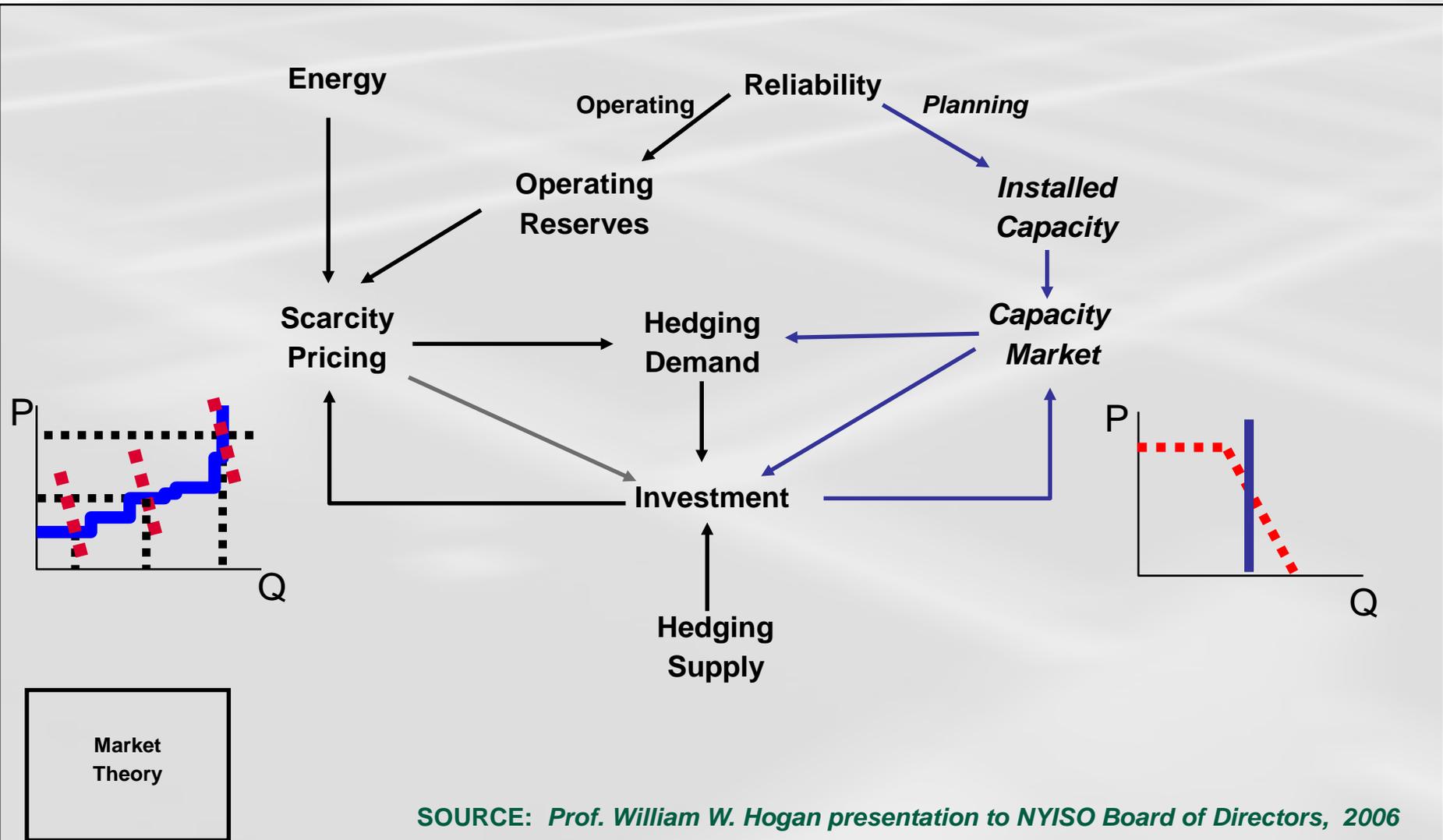
Centralized Capacity Markets in RTO/ISOs The NYISO Perspective

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Federal Energy Regulatory Commission
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Investment with Energy & Capacity Markets



SOURCE: Prof. William W. Hogan presentation to NYISO Board of Directors, 2006

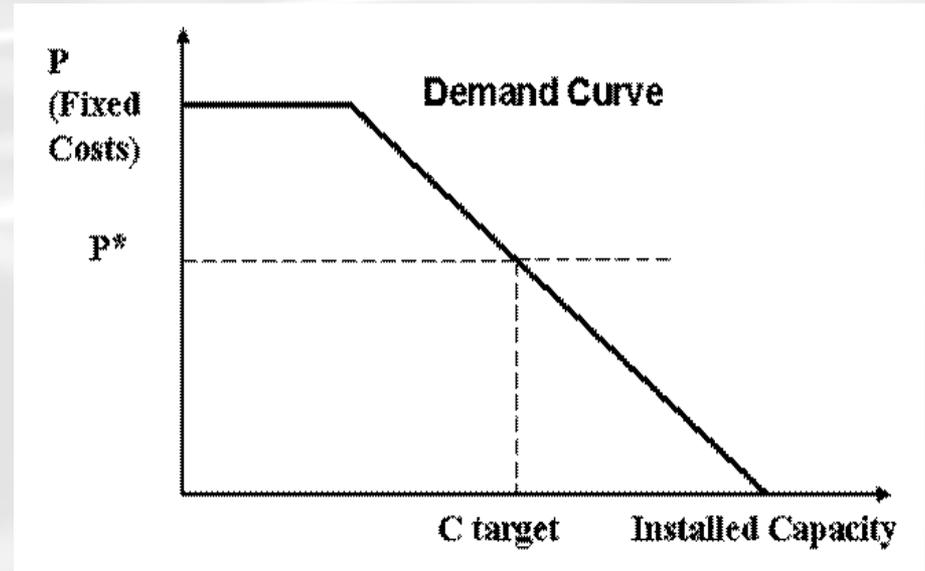
Locational Capacity

- ◆ **Due to transmission constraints into certain localities, Load Serving Entities serving these localities must procure a specified portion of their capacity requirements from resources electrically located within that locality**
- ◆ **New York has locational requirements for three transmission-constrained localities**
 - ***New York City***
 - ***Long Island***
 - ***Lower Hudson Valley****

*Effective May 2014 for start of Summer Capability Period

Demand Curve

- ◆ Demand Curve used as proxy for Load Bids in NYISO's monthly capacity spot auctions
- ◆ Improves traditional Capacity market
- ◆ Increases system reliability by valuing additional Capacity above reliability requirements
- ◆ Reduces price volatility & sends more stable revenue signal for new resources
- ◆ Continues to ensure a competitive, fair, and non-discriminatory market for capacity



NYISO Capacity Market

- ◆ **Minimum Installed Capacity (ICAP) requirements are set prior to each capability year**
- ◆ **Load Serving Entities can meet their capacity requirements by:**
 - ***Self-Supply***
 - ***Bilateral Transactions with Suppliers***
 - ***Forward Auctions (6-month strip and monthly)***
 - ***Deficiency/Spot Market Auctions***

Backstop Solutions for Resource Adequacy

- ◆ **NYISO planning process provides Backstop Solution for preserving Resource Adequacy**
- ◆ **If market-based solutions are insufficient to meet Reliability Needs by needed date, then:**
 - *NYISO can “trigger” a regulated backstop solution*
 - *NYISO requests Responsible Transmission Owners to seek NYS Public Service Commission (PSC) approval of backstop solution*
 - *NYS PSC and other regulatory agencies proceed with their review & approval*

Supplier-Side & Buyer-Side Mitigation

- ◆ The purpose of supplier-side mitigation is to prevent physical or economic withholding by suppliers who may have an incentive to raise prices
 - *Pivotal Supplier measures*
 - Subject to an offer cap
 - Must offer requirement for Mitigated UCAP
 - *Physical withholding provision*
 - Audit decisions to retire, remove, or de-rate capacity
- ◆ The purpose of buyer-side mitigation is to prevent uneconomic entry from artificially suppressing capacity prices
 - *Mitigation exemption test*
 - *Offer Floor (applied to non-exempt Spot Market offers)*

Capacity Markets at work

Attracting New Resources

Adding generation and transmission where it's most needed...

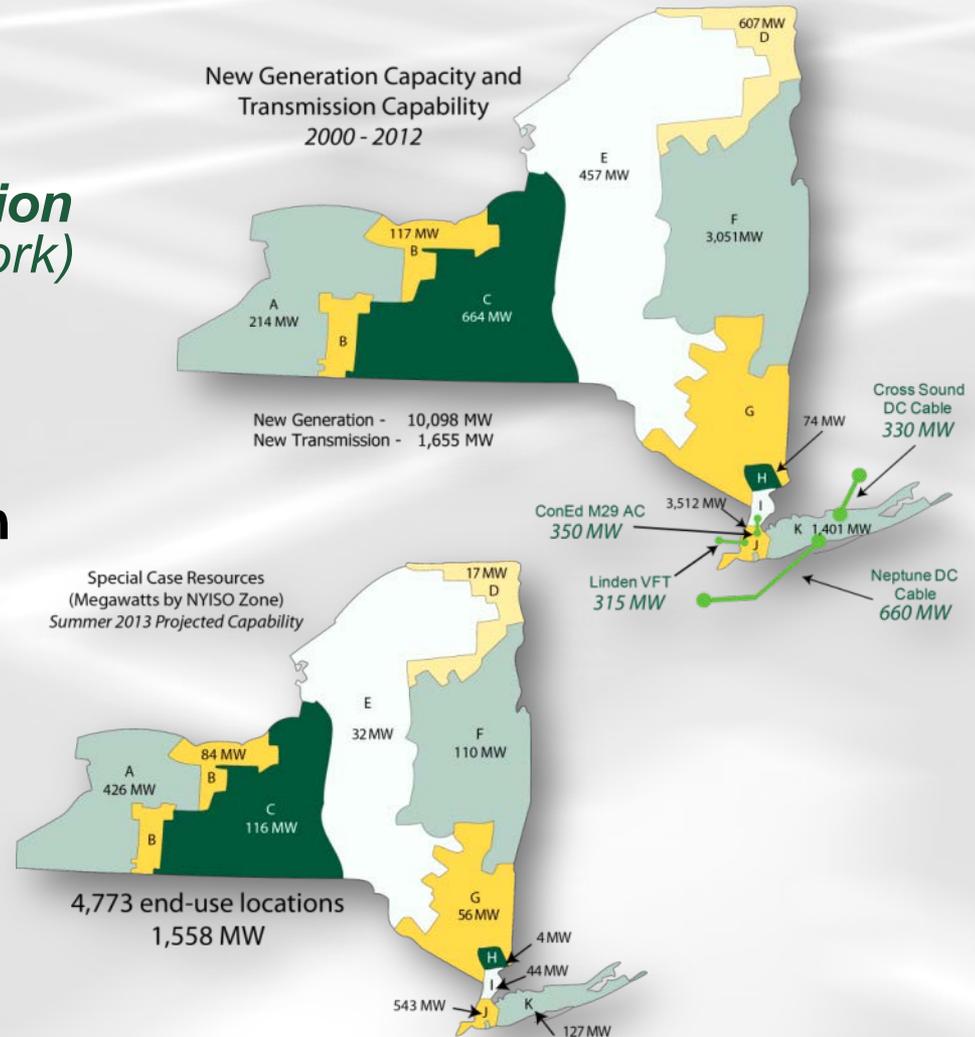
- **10,000+ MW of new generation** (80% in Southeastern New York)
- **1,600+ MW of new transmission** (100% in Southeastern New York)

Retirement of older generation

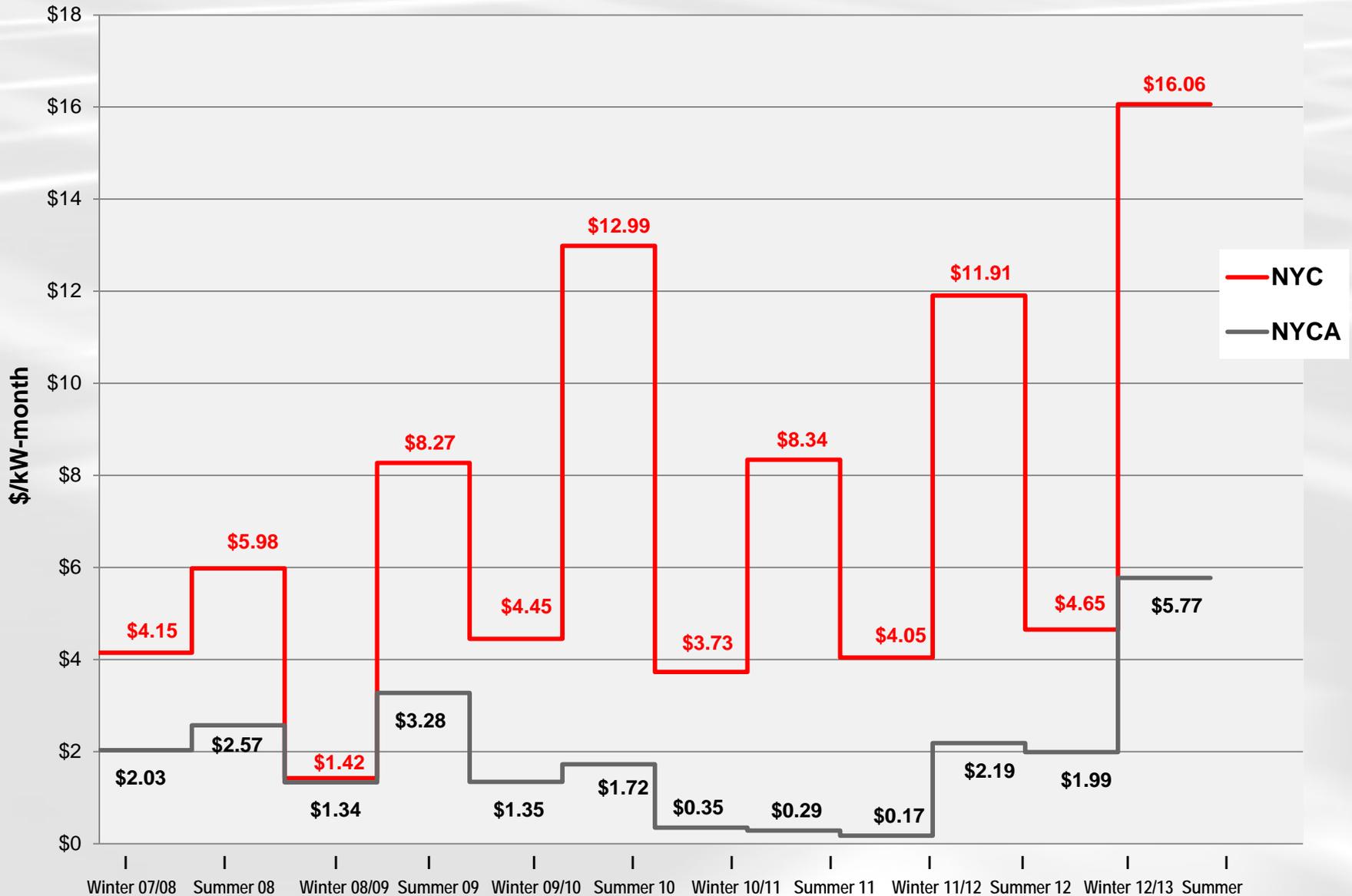
- **5000+ MW of generation retirements**

Fostering demand-side participation

- **~1,500 MW of demand response**



Average Seasonal Spot Market Clearing Prices Winter 2007/2008 to Summer 2013 (\$/kW-month UCAP)



Forward Capacity Market

“There are no compelling benefits to implementing a forward capacity market at this time.”

Evaluation of the New York Capacity Market

FTI Consulting

***Scott M. Harvey,
William W. Hogan
Susan L. Pope***

March 5, 2013

- ***Has potential to increase costs out of a proportion to any improvements in reliability (by being conservative in projecting forward requirements)***
- ***Does not guarantee resources clearing in the forward market will present to meet near time reliability needs***
- ***Current market design allows loads to contract forward for capacity***
- ***Implementation would take too long to address near-term uncertainties related to retirements***

Current Initiatives

- ◆ **Implementation of new Locality**
 - *Southeastern New York (Lower Hudson Valley and New York City)*
- ◆ **Improvements in scarcity pricing**
- ◆ **Exemptions/Enhancements to Buyer-Side Mitigation rules under stakeholder consideration**
 - *Repowering Exemption*
 - *Competitive Entry Exemption*
 - *Raising the default offer floor (for buyer-side mitigated units)*
 - *Clarifying market rules for mothballing and retirement of generators*



The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.

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