

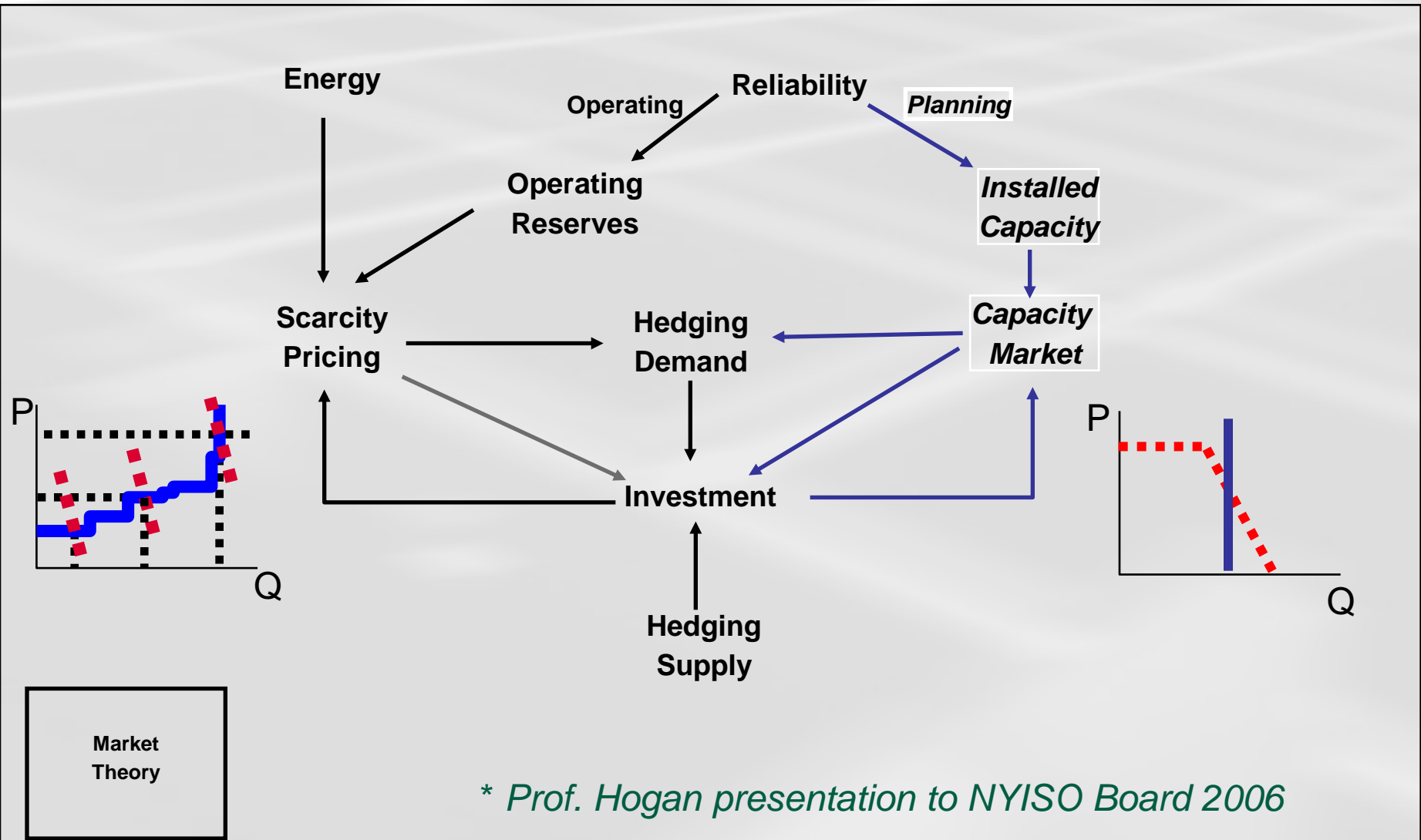
# Squaring the Circle of Resources Adequacy: The NYISO Perspective

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*Washington, DC  
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# Investment with Energy and Capacity Markets\*



\* Prof. Hogan presentation to NYISO Board 2006

# NYISO Capacity Market

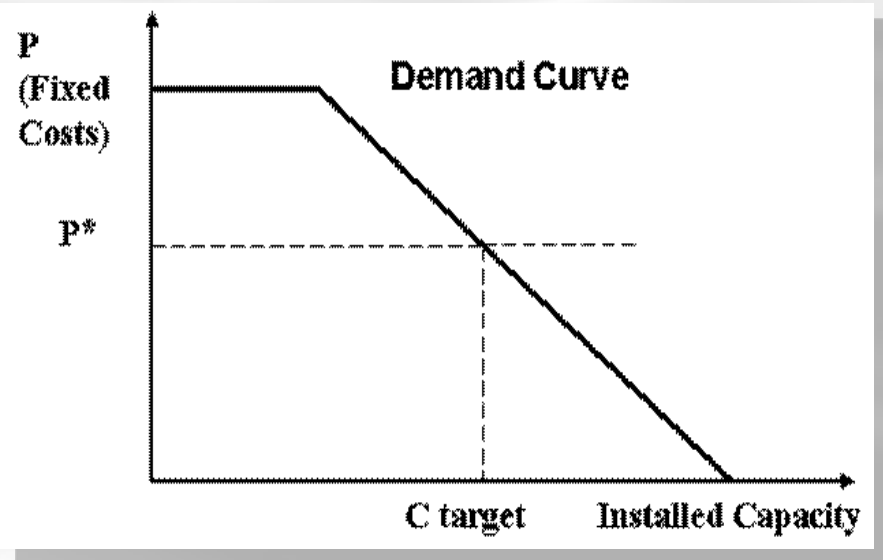
- ◆ **Installed Capacity (ICAP) Requirements are set by the NYS Reliability Council for the upcoming capability year**
- ◆ **Load Serving Entities (LSEs) can meet their ICAP requirements by:**
  - *Self-Supply*
  - *Bilateral Transactions with Suppliers*
  - *Forward Auctions (6-month strip and monthly)*
  - *Deficiency/Spot Market Auctions*

# Locational ICAP

- ◆ **Due to transmission constraints into certain localities, areas or zones, some LSEs must procure at least some of their ICAP requirements from resources electrically located within that locality**
- ◆ **New York has locational requirements for two transmission-constrained zones**
  - ***New York City***
    - *New York City capacity market is subject to both buyer side and supply side market mitigation measures*
  - ***Long Island***

# Demand Curve

- ◆ Demand Curve used as proxy for LSE Bids
- ◆ Improves traditional ICAP market
- ◆ Increases system reliability by valuing additional ICAP above the requirements
- ◆ Reduces price volatility & sends more stable revenue signal for new resources
- ◆ Continues to ensure a competitive, fair, and non-discriminatory market for capacity



# Emerging Reliability Needs

- **Two years ago, the *2010 Reliability Needs Assessment* (RNA) found no reliability needs over the ten-year study horizon**
- **The *2012 RNA* indentified reliability needs related to resource adequacy by 2020, as a result of:**
  - ***Lower generating capacity (~1,000 MW decline)***
  - ***Slightly higher baseline load forecast for 2020 (200 MW increase)***
  - ***Slightly lower projections of demand response resources for 2020 (~ 100 MW decline)***

# Regulated Backstop Solution Implementation

- **If market-based solutions are insufficient to meet Reliability Needs by need date, then:**
  - *NYISO can “trigger” a regulated backstop solution*
  - *NYISO requests Responsible TO(s) to seek NYS PSC approval of backstop solution*
  - *NYS PSC and other regulatory agencies proceed with their review & approval*

# Forward Capacity Market

**Draft study findings:**

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

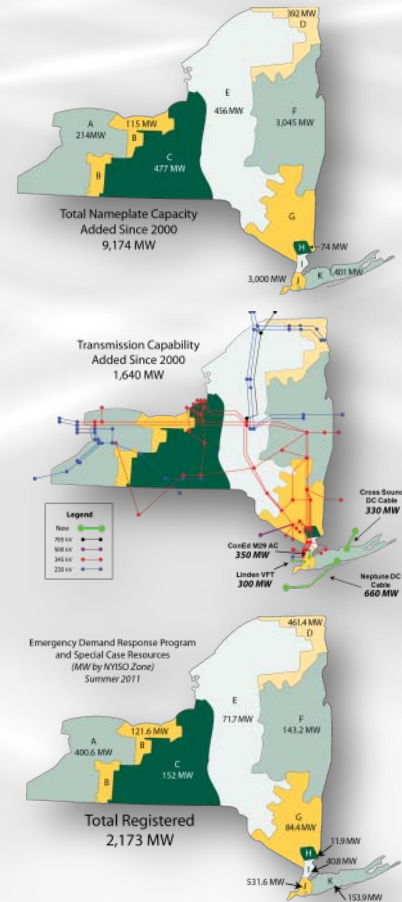
- *Has potential to increase costs out of a proportion to any improvements in reliability (by being conservative in projecting forward requirements)*
- *Does not guarantee resources clearing in the forward market will present to meet near time reliability needs*
- *Current market design allows loads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



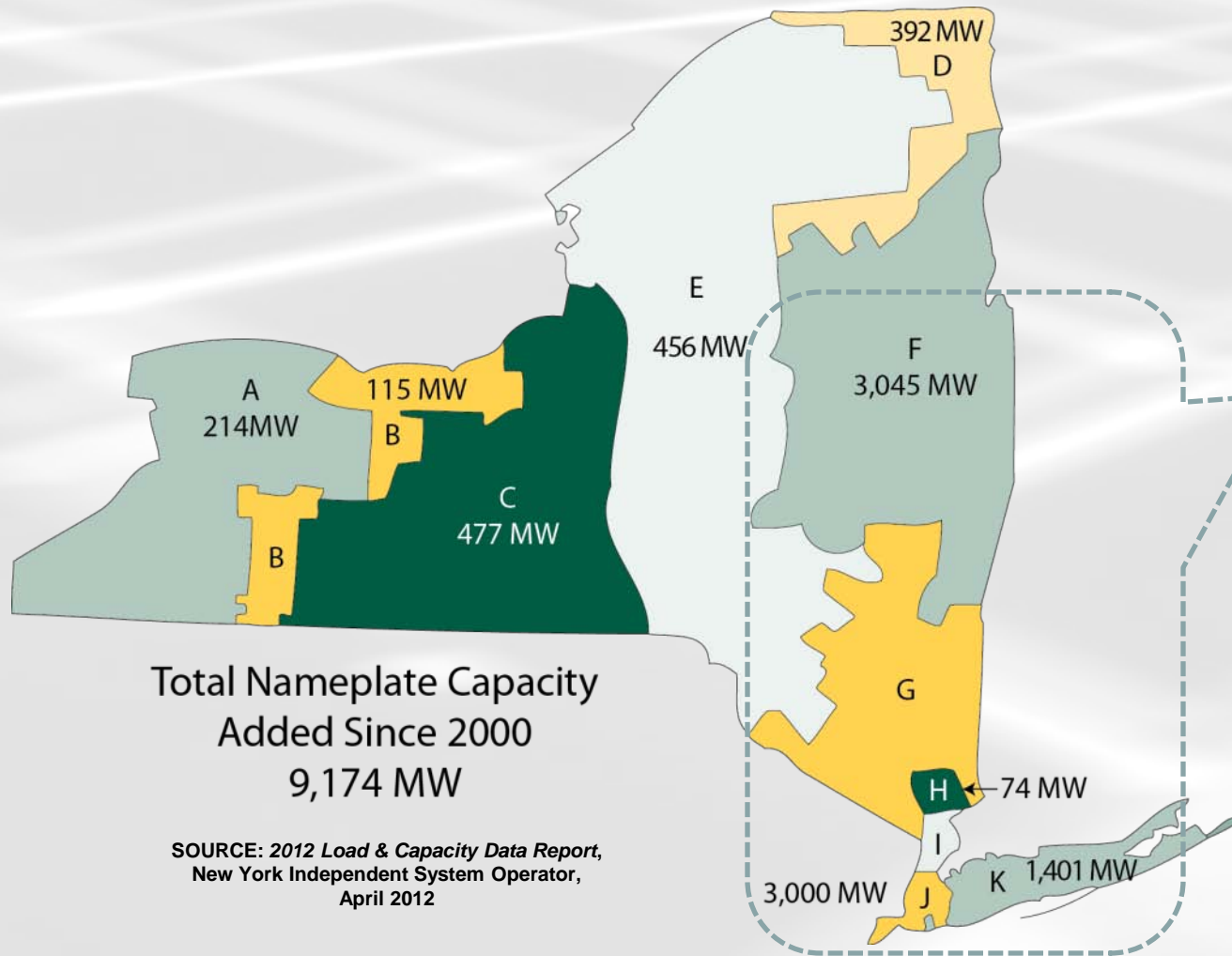
# Market Outcomes

**Since 2000, New York State has added:**

- **9,000+ MW of new generation**
- **1,600+ MW of new transmission**
- **~ 2,000 MW of demand response**



# New Generation



**80% of new generation  
sited  
in New York  
City, Long  
Island &  
Hudson  
Valley**

**Total Nameplate Capacity  
Added Since 2000  
9,174 MW**

**SOURCE: 2012 Load & Capacity Data Report,  
New York Independent System Operator,  
April 2012**

# Future Market Enhancements

- **New Locational Capacity Zone**
  - *Preliminary study results indicate Lower Hudson Valley*
- **Improvements in scarcity pricing**



NEW YORK INDEPENDENT SYSTEM OPERATOR

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