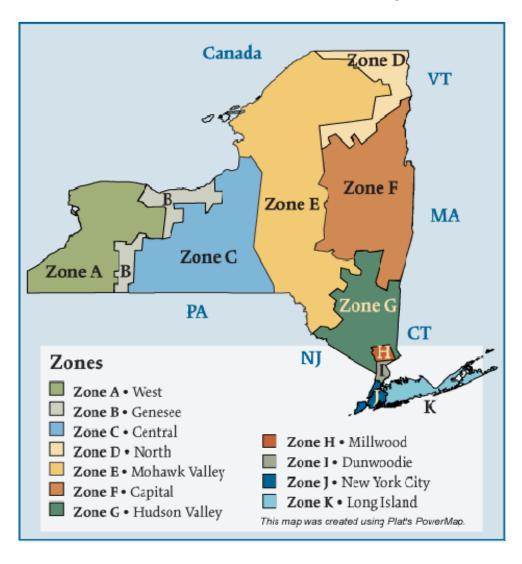
### New York (NYISO) Electric Regions



#### Overview

#### Geography

State covered: New York

Reliability region: Northeast Power Coordinating Council (NPCC) and New York ISO (NYISO) subregion

Balancing authority: New York ISO (NYISO)

Zones: See map above.

#### RTO/ISO

New York ISO (NYISO) (established 1999) operates the region's power grid and wholesale electric markets:

- Energy market: two-settlement (day ahead and real-time) spot market with locational marginal pricing,
- Regional and locational capacity market, and
- Financial transmission rights market.

Also, market participants trade electricity bilaterally through brokers, the IntercontinentalExchange (ICE) and the New York Mercantile Exchange's (Nymex) ClearPort, using Zone A (West) as a pricing point.

#### **Generation/Supply**

Marginal fuel type: natural gas

Generating capacity (summer 2006): 39,704 MW

Capacity reserve (summer 2006): 5,765 MW

Reserve margin (summer 2006): 17%

The New York City metropolitan area (NYC) and Long Island (LI) are areas of concentrated demand. Both localities have requirements for installed generating capacity that are more stringent than the rest of the region, to ensure reliability of service.

#### **Demand**

All time peak demand: 33,939 MW (set August 2, 2006)

In summer of 2006, demand reached record levels on several occasions due to extremely hot weather.

Peak demand growth: 5.6 % (2006-2005)

Summer Peak Demand (MW) 28,433 (2004), 32,075 (2005), 33,939 (2006) (Source: NYISO)

Load pockets: Zone J New York City and Zone K Long Island

#### **Prices**

#### **Annual Average Day-Ahead Price**

**Zone J New York City** 

**2004:** \$63.16/MWh **2005:** \$93.77/MWh **2006:** \$71.28/MWh

**Zone K Long Island 2004:** \$63.20/MWh **2005:** \$99.32/MWh **2006:** \$86.68/MWh

Prices increased in 2005 as a result of disturbances to the natural gas market. Prices declined in 2006 as natural gas storage levels remained above historical ranges throughout the injection season (April through October).

#### Interconnections/Seams

Coming soon

#### **Focal Points**

**NYC Adds 1,000 MW:** In 2006, two 500-MW combined-cycle, gas-fired power plants entered service in New York City. These included the SCS/Astoria, run by Astoria Energy LLC, a subsidiary of Massachusetts-based SCS Energy LLC., and the New York Power Authority's Astoria unit. These new facilities provided a local buffer of capacity to the import-dependent New York City market.

**Software Upgrade:** On Feb. 1, 2005, the New York Independent System Operator (NYISO) launched a market software overhaul dubbed Standard Market Design 2.0 (SMD-2). This upgrade increased efficiency and enabled various market enhancements, including demand curves for reserves and regulation services and three-part offers in real-time for generators (start-up costs, minimum generation costs, and incremental energy costs).

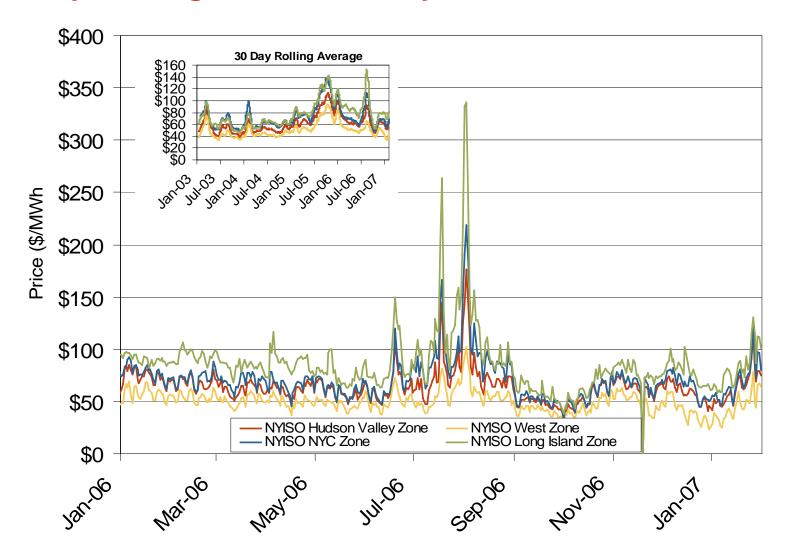
## **Supply and Demand Statistics for NYISO**

Supply Demand Statistics			
	2004	2005	2006
Summer Generating Capacity MW	38,111	37,548	39,704
Summer Peak Demand MW	28,433	32,075	33,939
Summer Reserves MW	9,678	5,473	5,765
Summer Reserve Margin:	34%	17%	17%
Annual Load (GWh):	160,211	167,208	166,893
Annual Net Generation GWh	147,170	153,264	NA

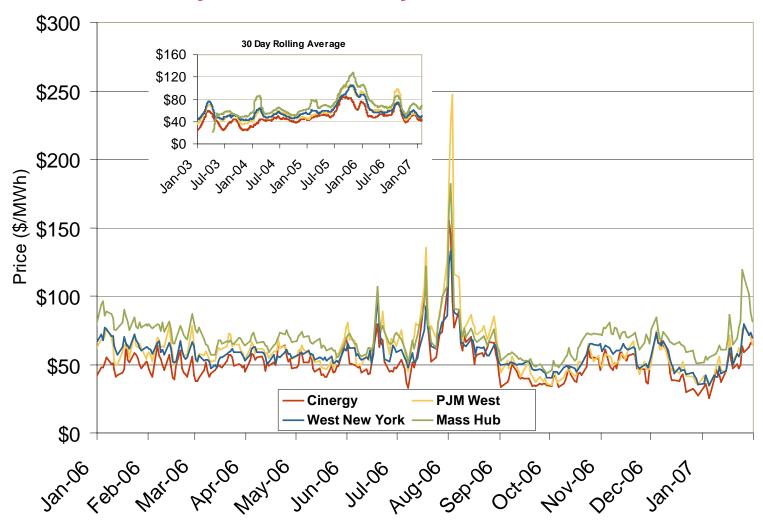
## **Yearly Average of RTO DA Prices -- All Hours**

Annual Average Day Ahead Prices (\$/MWh)			
	2005	2006	5 Year
Zone A West	\$65.24	\$50.20	\$46.95
Zone G Hudson Valley	\$79.47	\$64.05	\$57.33
Zone J New York City	\$93.77	\$70.90	\$67.42
Zone K Long Island	\$99.32	\$86.15	\$71.67

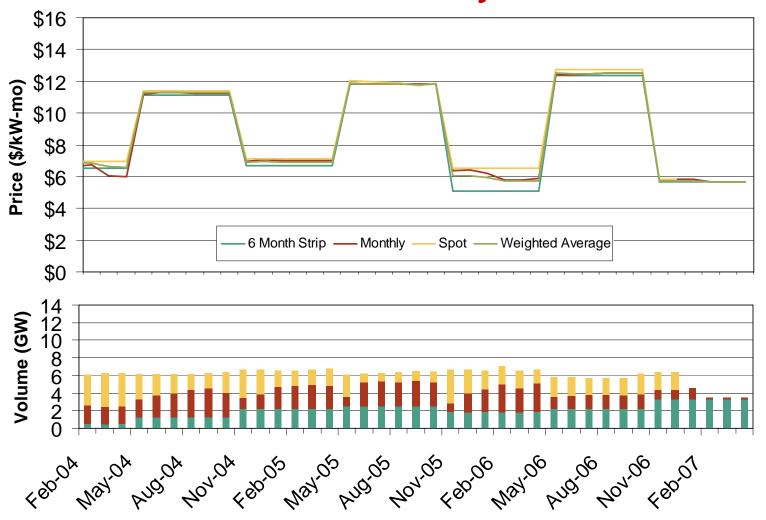
## Daily Average of NYISO Day-Ahead Prices - All Hours



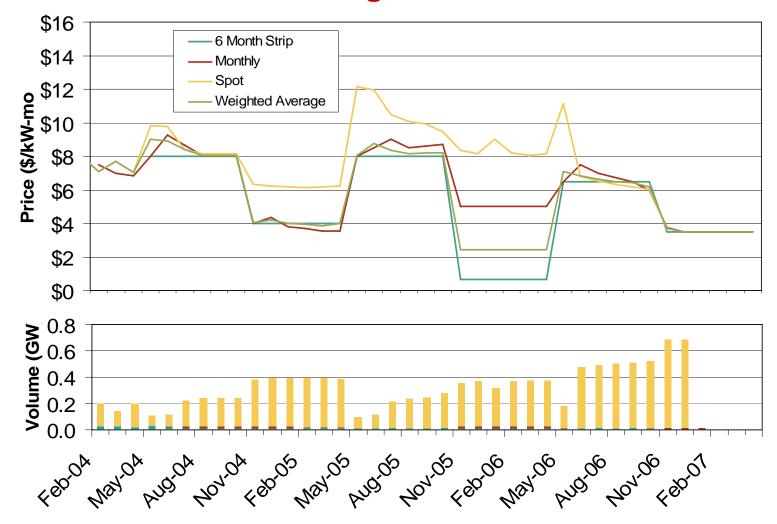
## Eastern Daily Bilateral Day-Ahead On-Peak Prices



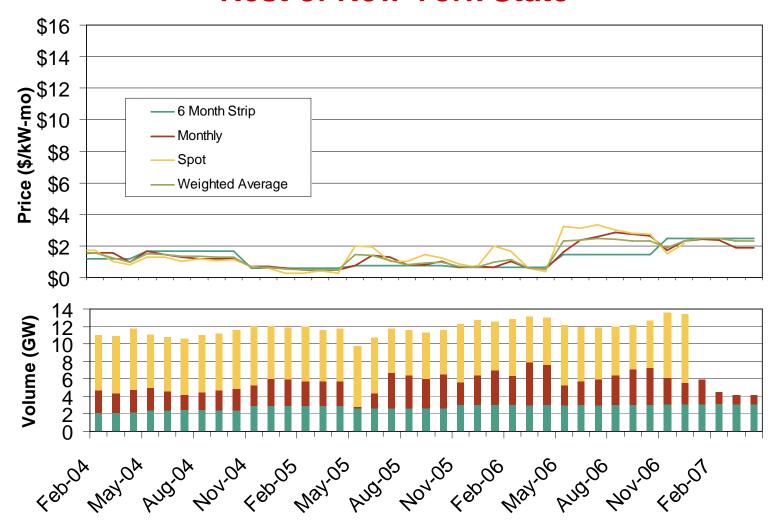
# Weighted Average ICAP Clearing Prices and Volumes: New York City



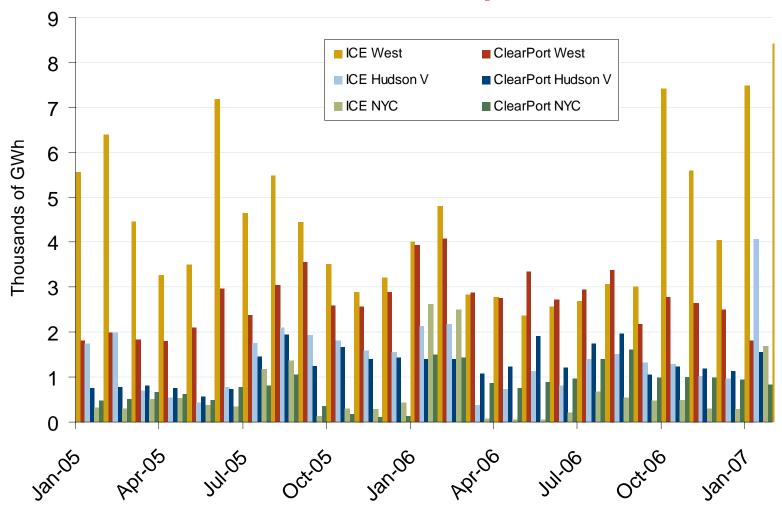
## Weighted Average ICAP Clearing Prices and Volumes: Long Island



## Weighted Average ICAP Clearing Prices and Volumes: Rest of New York State



## **Various New York Swap Volumes**



Source: Derived from ICE and Nymex ClearPort data. ICE on-peak forward and swap volumes are for zones A, G and J and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month. Nymex ClearPort on-peak swaps volumes are for zones A, G and J and are traded by month.