



**USAID**  
FROM THE AMERICAN PEOPLE



National  
Association of  
Regulatory  
Utility  
Commissioners

# Natural Gas Contracts in New York State

Thomas G. Dvorsky  
Director, Office of Gas and Water  
New York State Department of Public  
Service  
[Thomas\\_Dvorsky@dps.state.ny.us](mailto:Thomas_Dvorsky@dps.state.ny.us)

June 2007



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

# LDC Gas Supply Portfolios

- LDC gas supply portfolios consist of a variety of components
  - Interstate pipeline capacity
    - From producing regions or market area liquid points to the city-gate
  - Storage
    - Market area storage--located closer to the consuming areas
      - e.g., substantial storage fields located in Pennsylvania
    - Production area storage
  - Purchases of gas supply (at the wellhead, at market centers or liquid points and at the city-gate)
  - Arrangements to use the firm supplies of electric and co-generation plants
  - Peaking facilities located within their service territories
    - Liquefied natural gas (LNG)
    - Propane-air (LPG-air) plants



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

# LDC Gas Supply Portfolios

## Capacity

- LDCs contract for shipping rights on the pipelines
  - The cost of reserving capacity on these pipelines is a fixed cost and is based on a maximum daily volume of natural gas that may be transported
- LDCs contract for storage capacity and manage filling and withdrawing gas from that capacity
  - Storage plays a significant role in reducing total gas costs as well as providing supply reliability
  - Gas is injected into storage during the summer months, when it has been traditionally lower in price
  - The gas is then withdrawn from the fields to be used during the winter months



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

# LDC Gas Supply Portfolios

## Gas Supply

- LDCs maintain a portfolio of gas supply contracts with varying terms of expiration and flexibility
  - Ability to react to changing market conditions
  - For periods ranging from one season to several years
  - Base load contracts
  - Monthly take or release contracts
  - Swing supply contracts
  - Spot or daily purchases
    - Most of the LDCs have minimal reliance on daily purchases
  - Supply contracts generally have pricing mechanisms that allow each company the option to trigger a NYMEX price, use first-of-the-month index prices or negotiate a month or longer fixed commodity price



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

# Peaking Facilities

## LNG Facilities

- Natural gas at -260 degrees F is a liquid. Stored at that temperature to keep it in a liquid state, 1/600<sup>th</sup> of gaseous volume
- LNG facilities provide huge volumes of gas for the very coldest days of the winter
- Inventory of the storage facility can be depleted in just a few days at maximum vaporization rates
- Liquefaction rates are only a small fraction of the vaporization rates; refill takes a whole season to replace



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Peaking Facilities

There are three LNG facilities in the State

- Con Edison facility located in Astoria
  - 1050 Mdt capacity
  - 166 Mdt/d vaporization capability
- KeySpan NY facility in Greenpoint
  - 1600 Mdt capacity
  - 291 Mdt/d vaporization capability
- KeySpan LI facility in Holtsville
  - 600 Mdt capacity
  - 103 Mdt/d vaporization capability



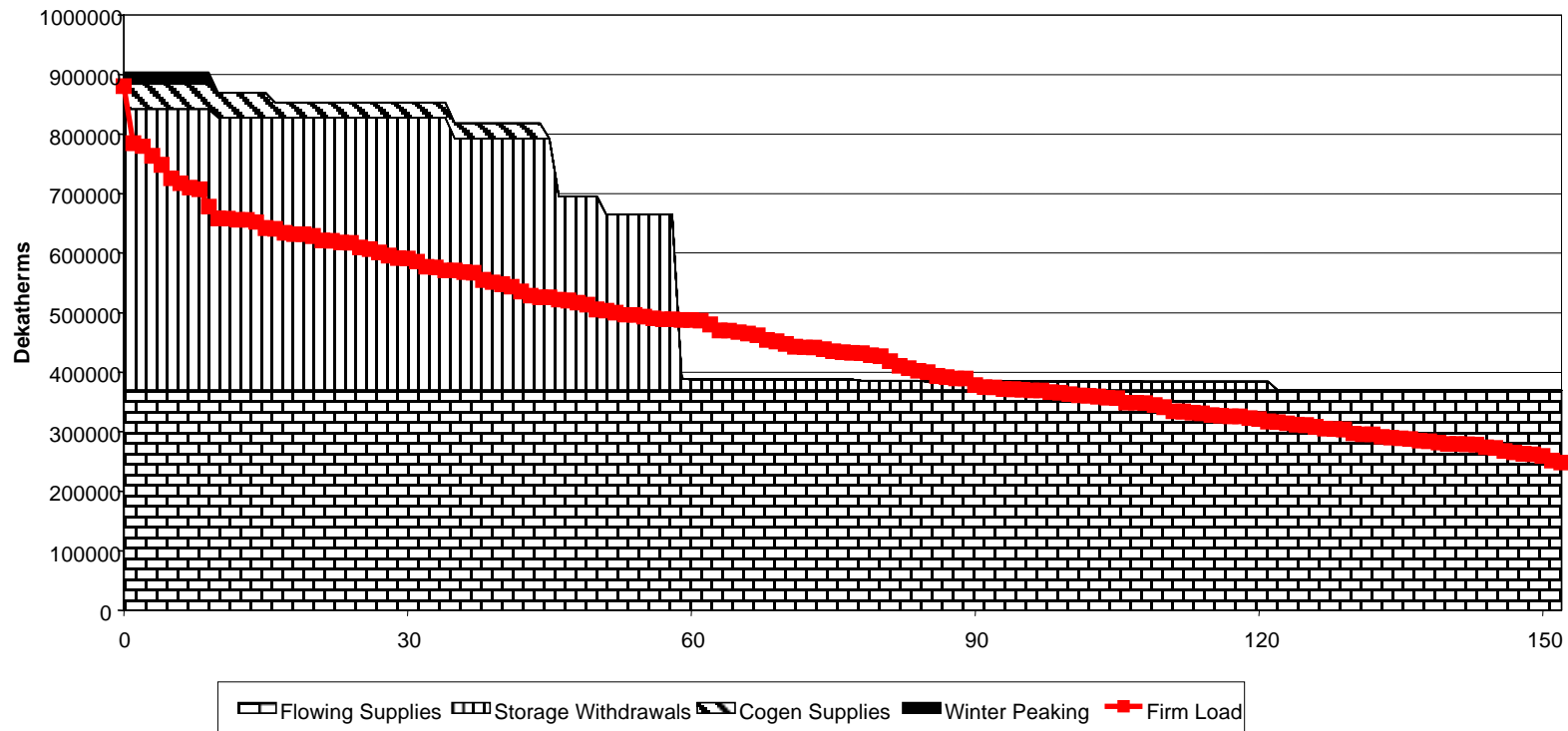
**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

# Niagara Mohawk

Winter Demand/Capacity Duration Curve - Example



Natural Gas Contracts



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## **Policy Statement Concerning Gas Purchasing Practices**

### **Background:**

- Historically, diversification of LDCs' supply portfolios was comprised of storage gas and flowing gas from a limited number of supply basins
- Prior to the Policy Statement most LDCs bought natural gas primarily through contracts that reset price monthly on a specified price index (NYMEX or Canadian Weighted Average)
  - Reliance on Index Pricing solely did not recognize or manage price volatility
  - LDCs felt that paying the market price ensured prudence





**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## **Policy Statement Concerning Gas Purchasing Practices**

### **Purpose:**

- To provide diversity in acquisitions and to defuse price spikes and valleys for gas supplies

### **Compliance:**

- LDCs need to develop an acquisition strategy to include a mix of purchase options with a view toward fostering price stability



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Policy Statement Concerning Gas Purchasing Practices

### Policy:

- LDCs should consider all available options for purchasing gas and assess the benefits of each approach
- Options may include: short and longer term fixed price purchases, spot acquisitions, use of financial hedges, and contracts providing flexibility in the amount taken over term of the agreement
- Volatility of customer bills is one of the criteria, as well as cost and reliability, that should be considered in purchasing strategies
- Excessive reliance on any one gas pricing mechanism or strategy does not appear to reflect the best management of the gas portfolio
- Any gas utility without a diversified gas pricing strategy will have a heavy burden to demonstrate that its approach is reasonable



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Reducing Gas Price Volatility

- Hedging would be setting prices for future deliveries to protect against significant price fluctuations.
- NY LDCs have hedged a significant portion of their gas supply
  - storage inventories provide a natural hedge
  - a portion of flowing gas is hedged either through a physical hedge or a financial hedge



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Storage – Natural Physical Hedge

- LDCs provide 25% to 40% of their normal winter supply from storage
- Storage provides a natural hedge
  - Gas is injected into storage from April through October at market prices
  - Gas is withdrawn from storage from November through March at a fixed price (i.e., weighted cost of gas in storage)
- Market area storage is used primarily for city-gate supply, transportation balancing and swing supply services at a fixed gas cost
- Production area storage is also used by a few companies to protect supply from force majeure situations and for price protection of normal flowing supplies



**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Financial Hedges

- LDCs provide up to 35% of their normal winter supply with financial hedges
- Futures and Options Contracts are purchased to provide the ability to flow gas at a fixed price
- Futures are at fixed prices by delivery month for specified volumes
- Options can be simple calls or puts, collars or cost-less collars, and swaps

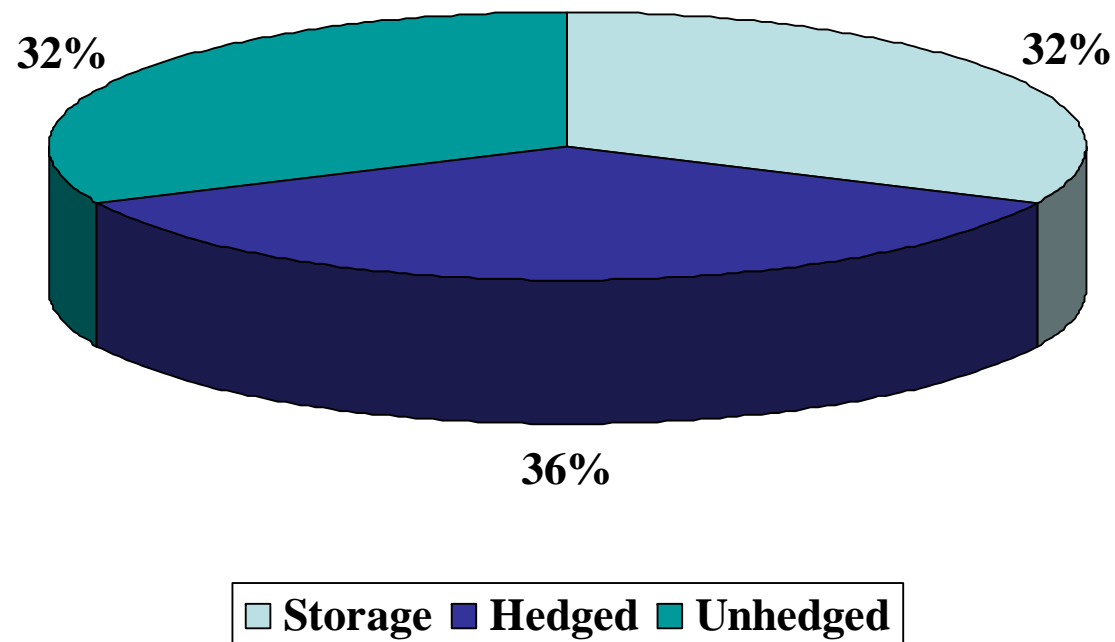


**USAID**  
FROM THE AMERICAN PEOPLE



N A R U C  
National Association of Regulatory Utility Commissioners

## Typical Winter Supply Portfolio



Natural Gas Contracts