
How Much Gas is Enough?

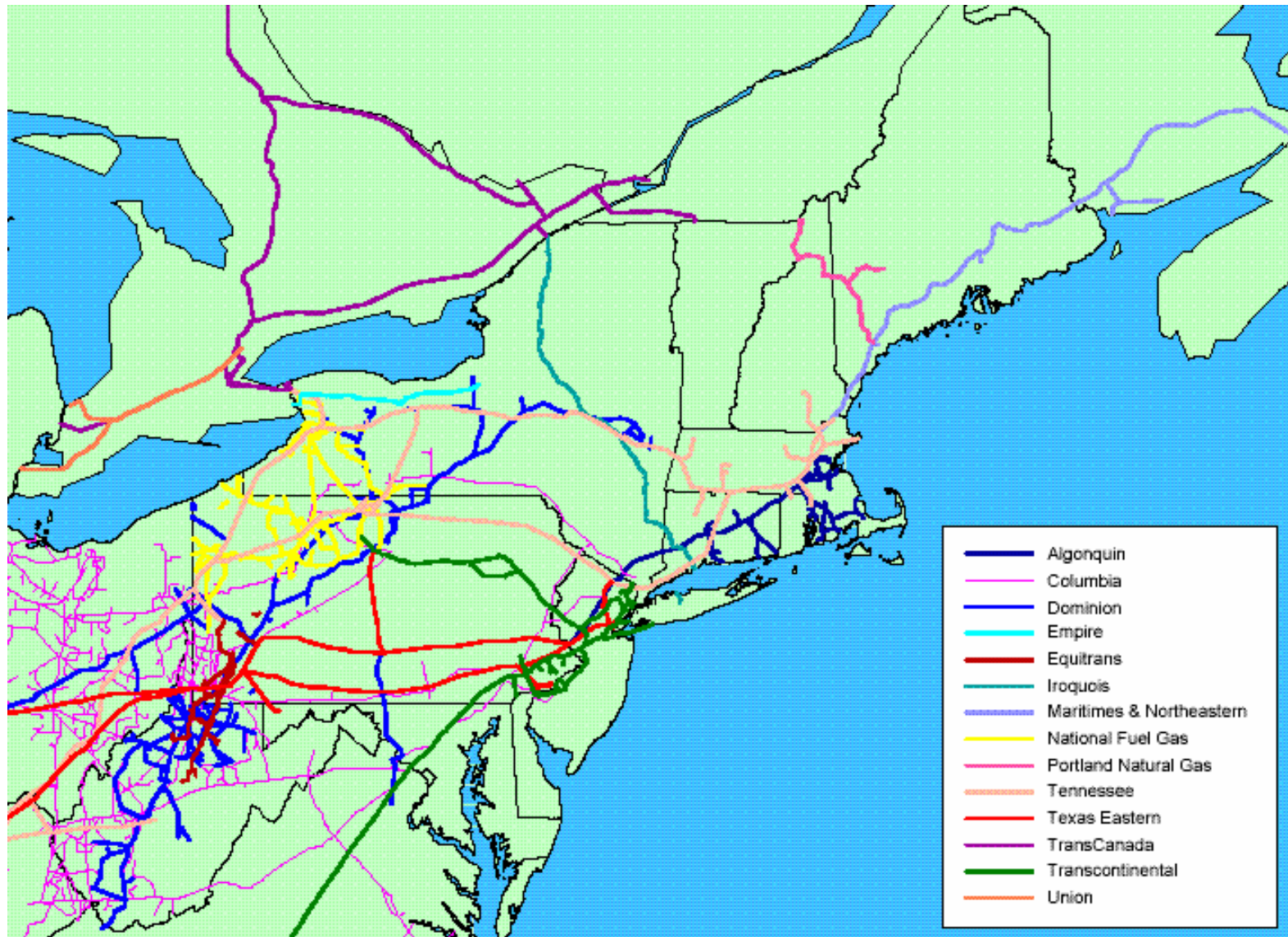
Finding Incentives to Lessen the Gas Overbuild

Platts Northeast Power Markets Forum
Washington, D.C.
March 30, 2006

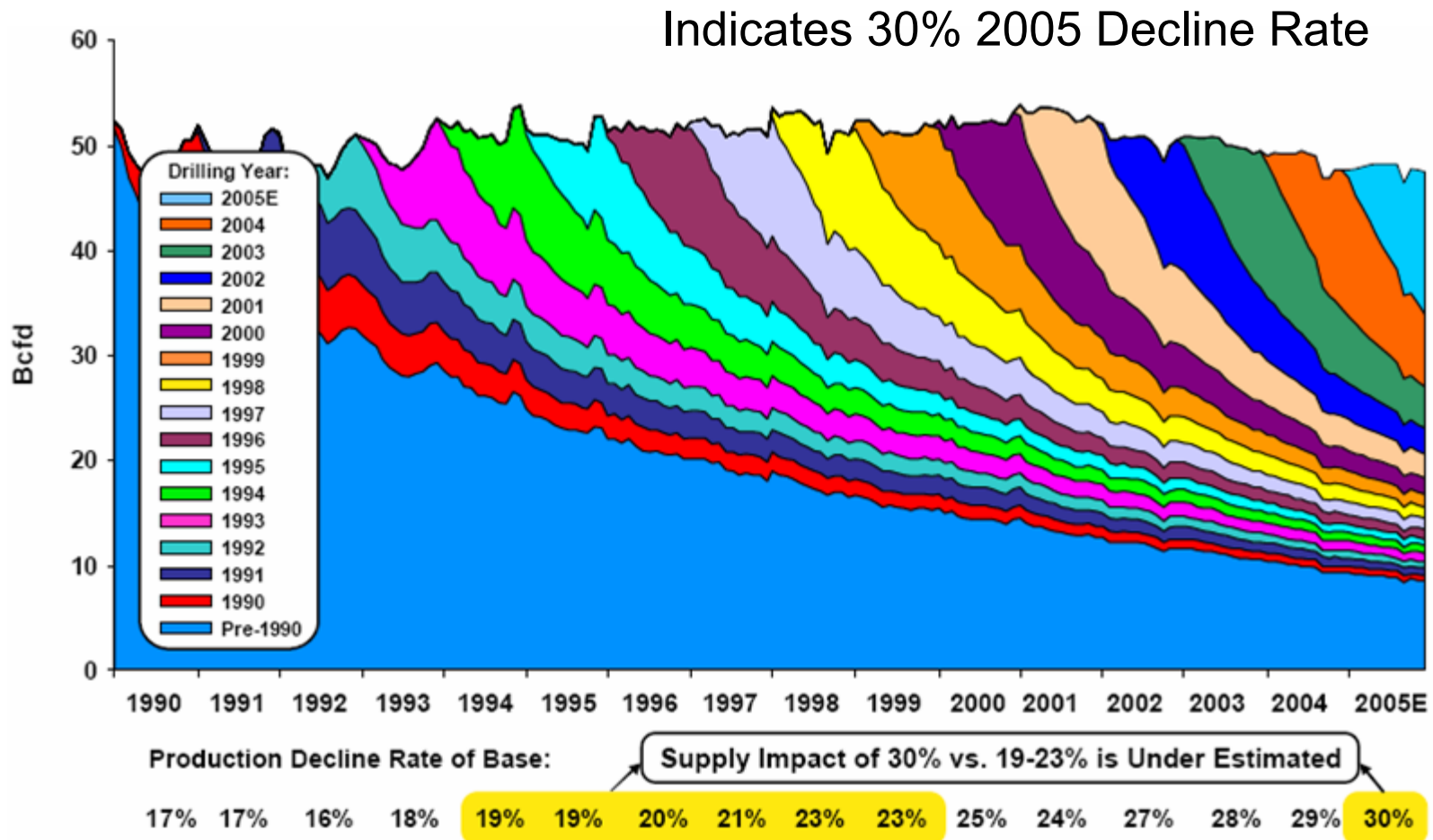
Richard L. Levitan, rl@levitan.com

LEVITAN & ASSOCIATES, INC.
MARKET DESIGN, ECONOMICS AND POWER SYSTEMS

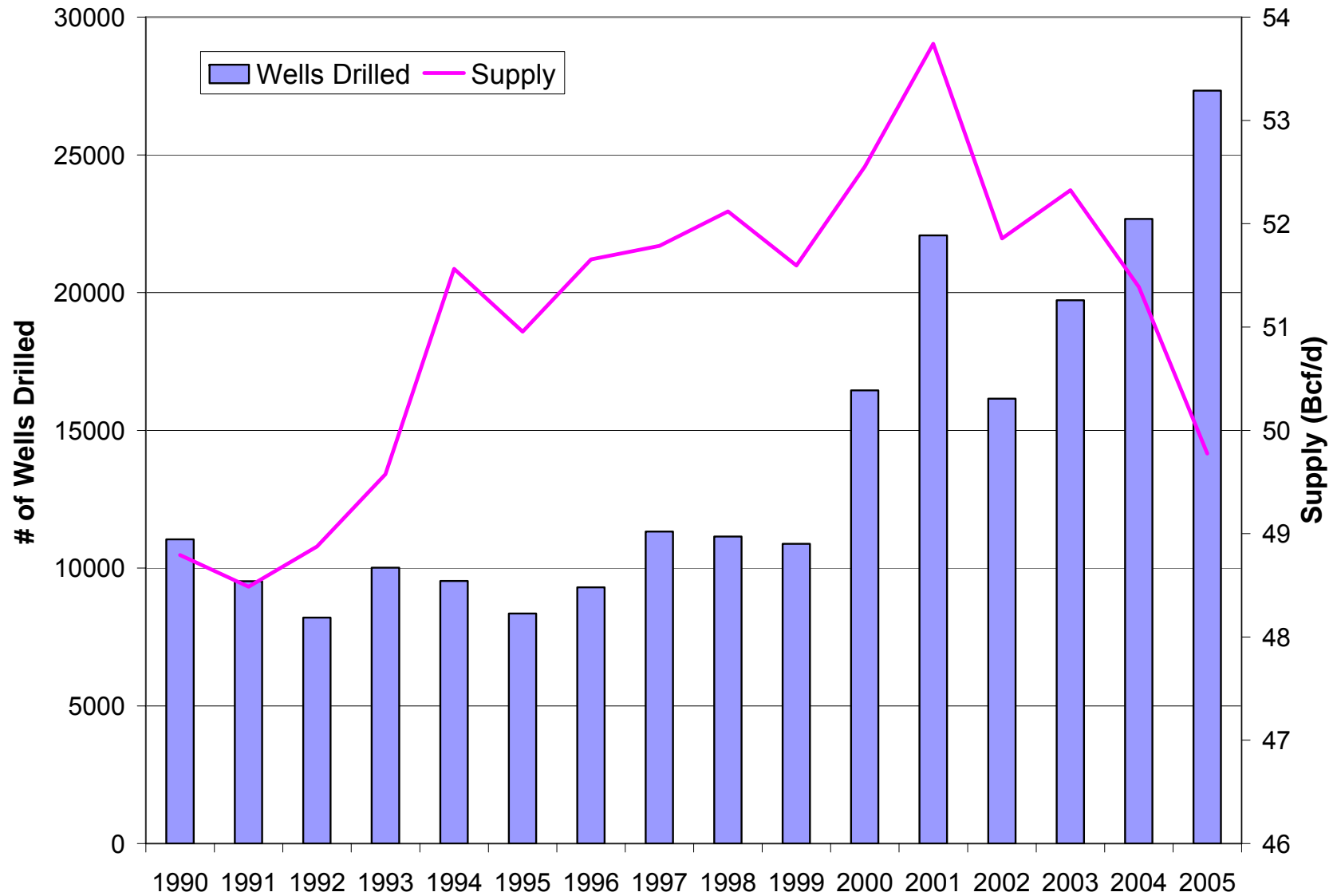
Natural Gas Pipelines in the Greater Northeast



U.S. Natural Gas Production History



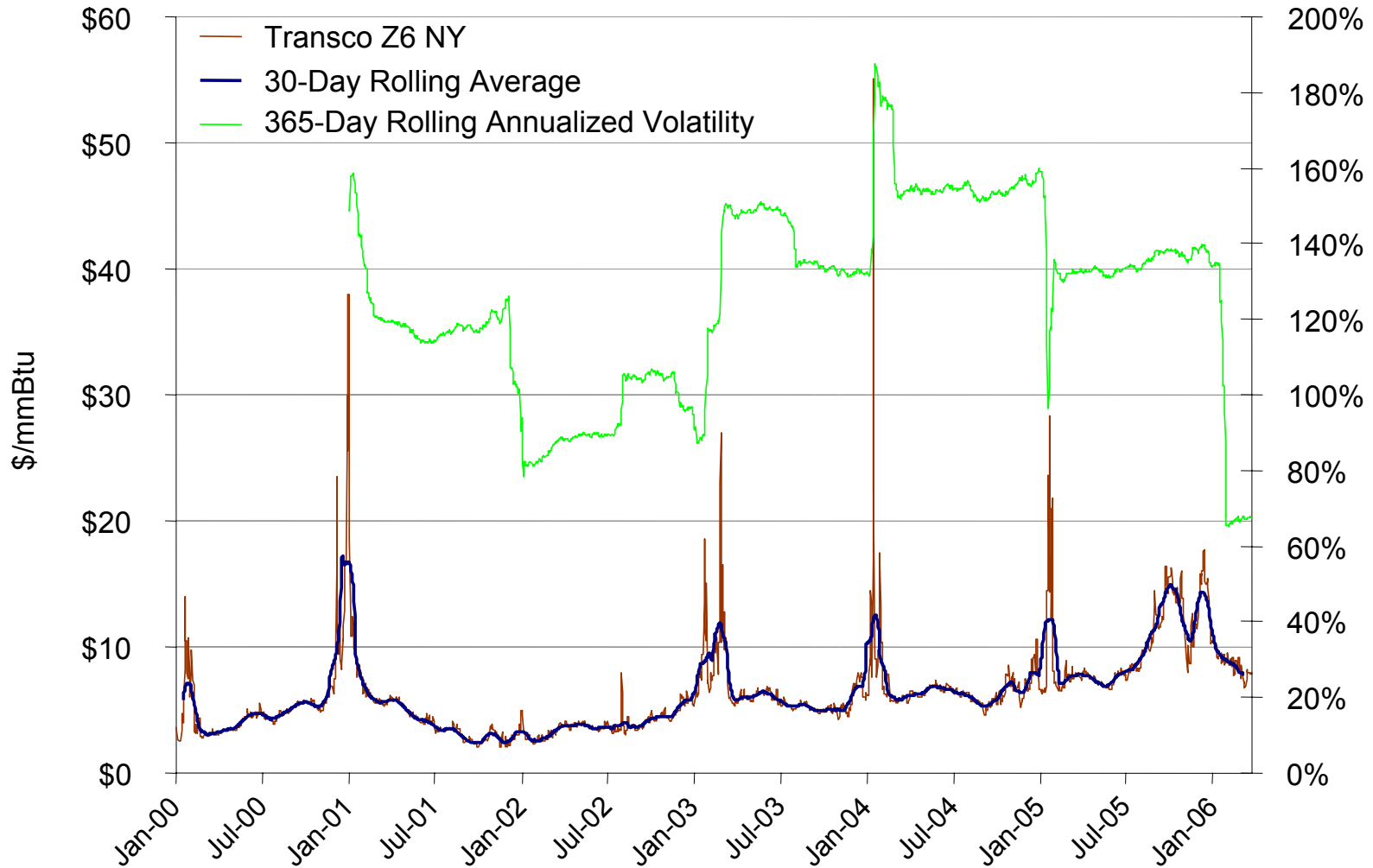
Drilling vs. Production



Source: EIA

Gas Prices and Volatility in the Northeast (2000-'06)

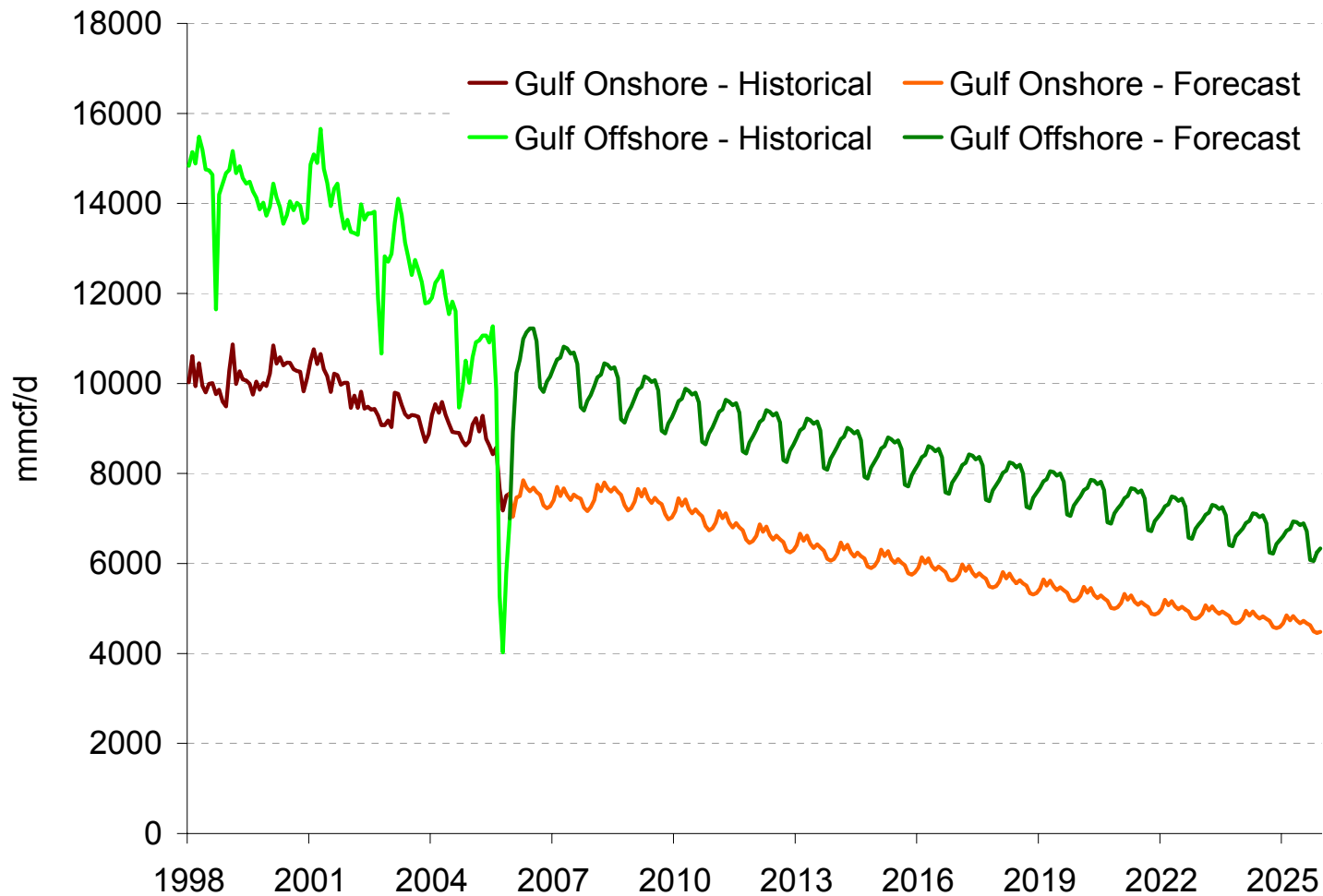
- Persistently high gas price volatility



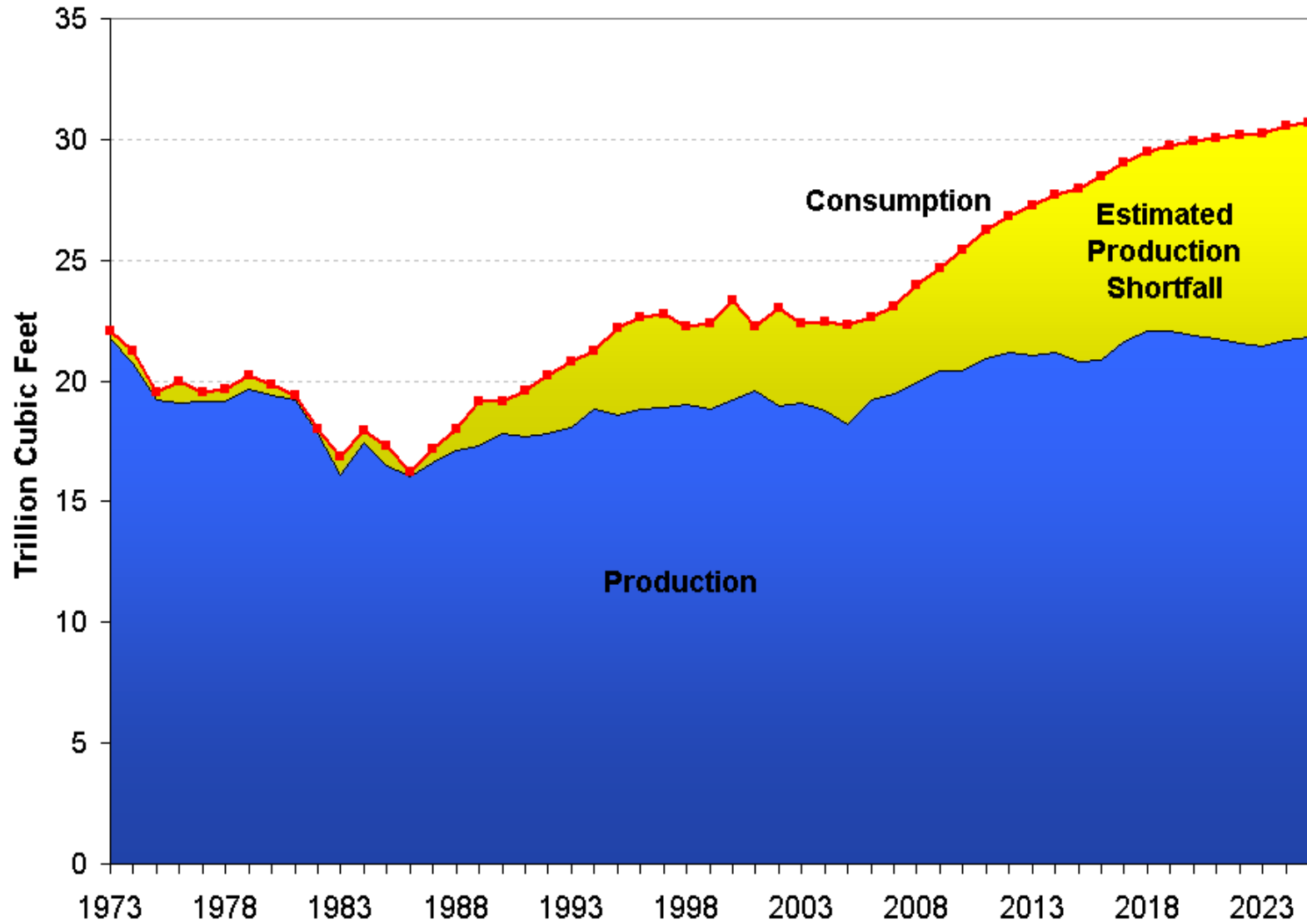
Source: Bloomberg

Offshore & Onshore Production

- Declining production due to maturation effects



Natural Gas Production Shortfall

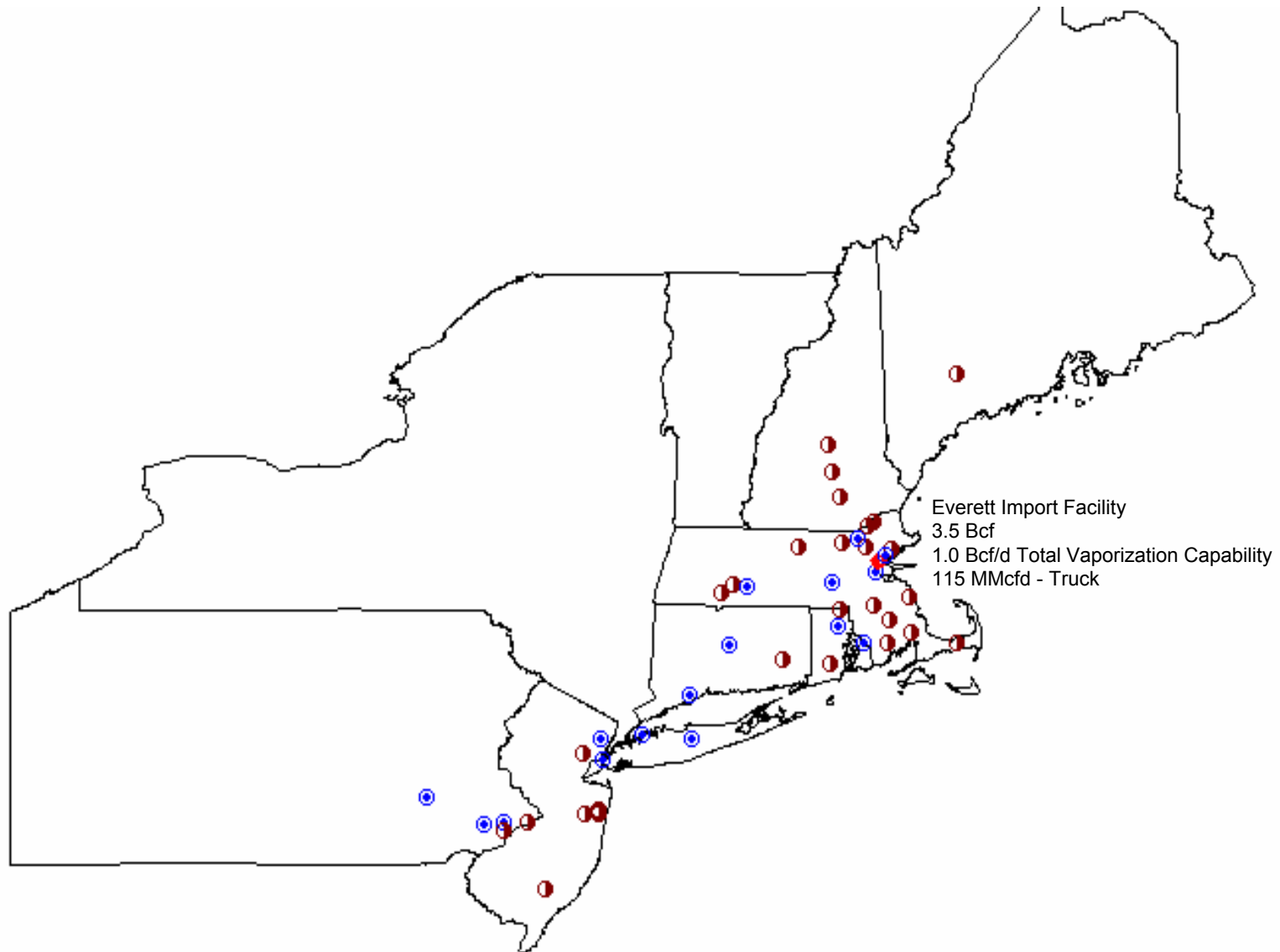


Source: EIA

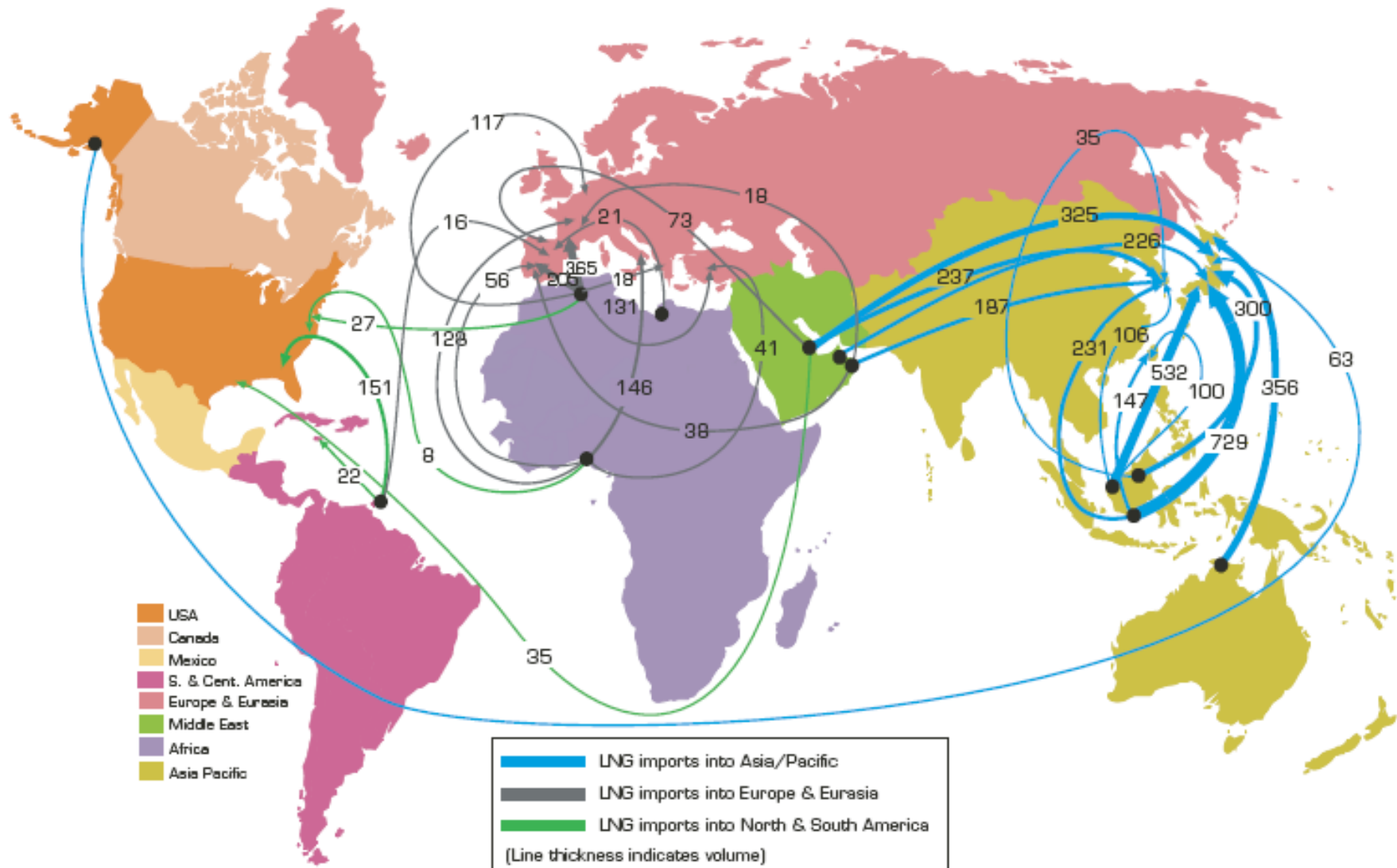


Source: www.lngoneworld.com

Satellite LNG Tanks in the Greater Northeast

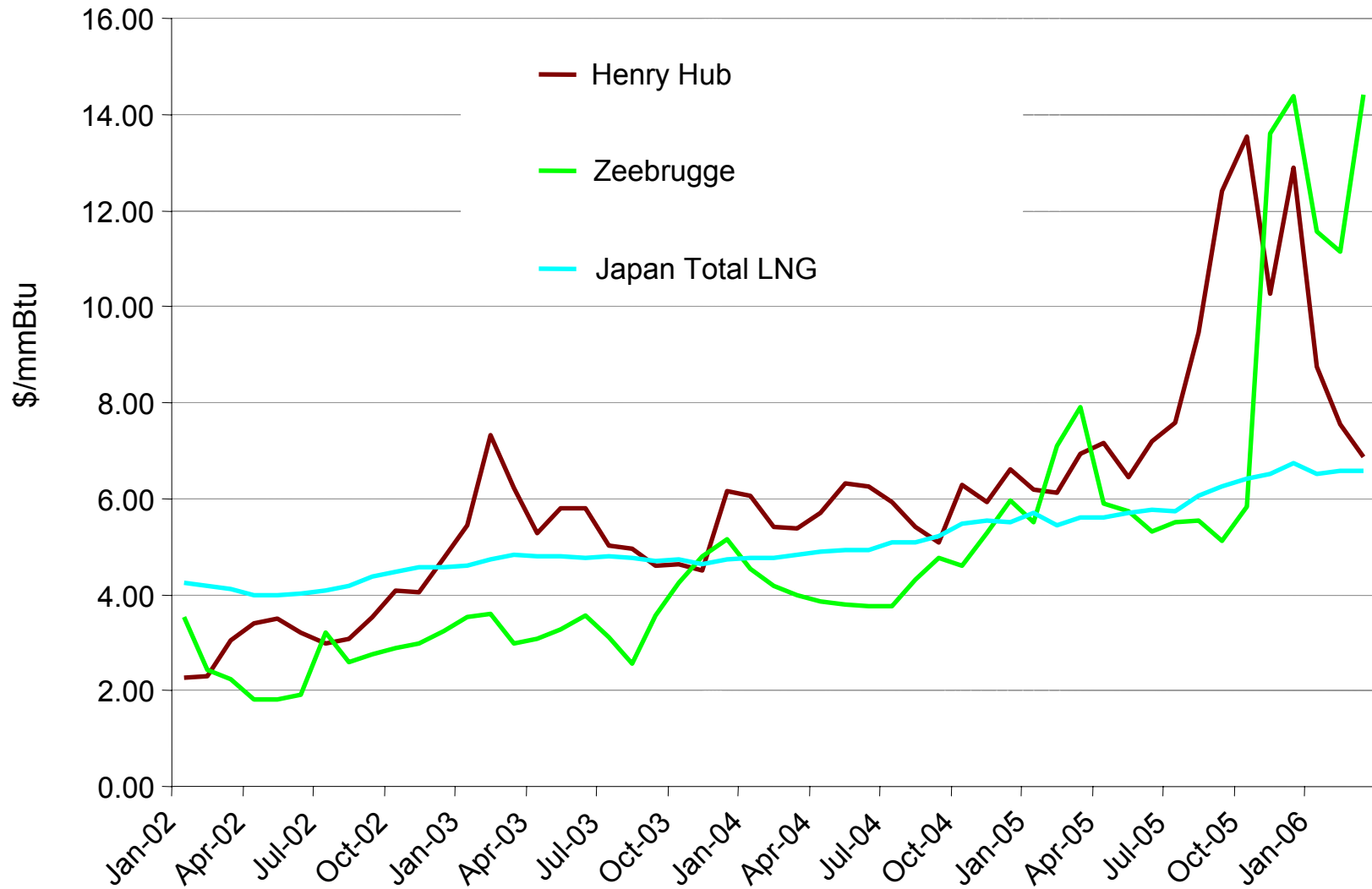


Competitive World LNG Market



Source: EIA Global Liquefied Natural Gas Market, 2002 flows

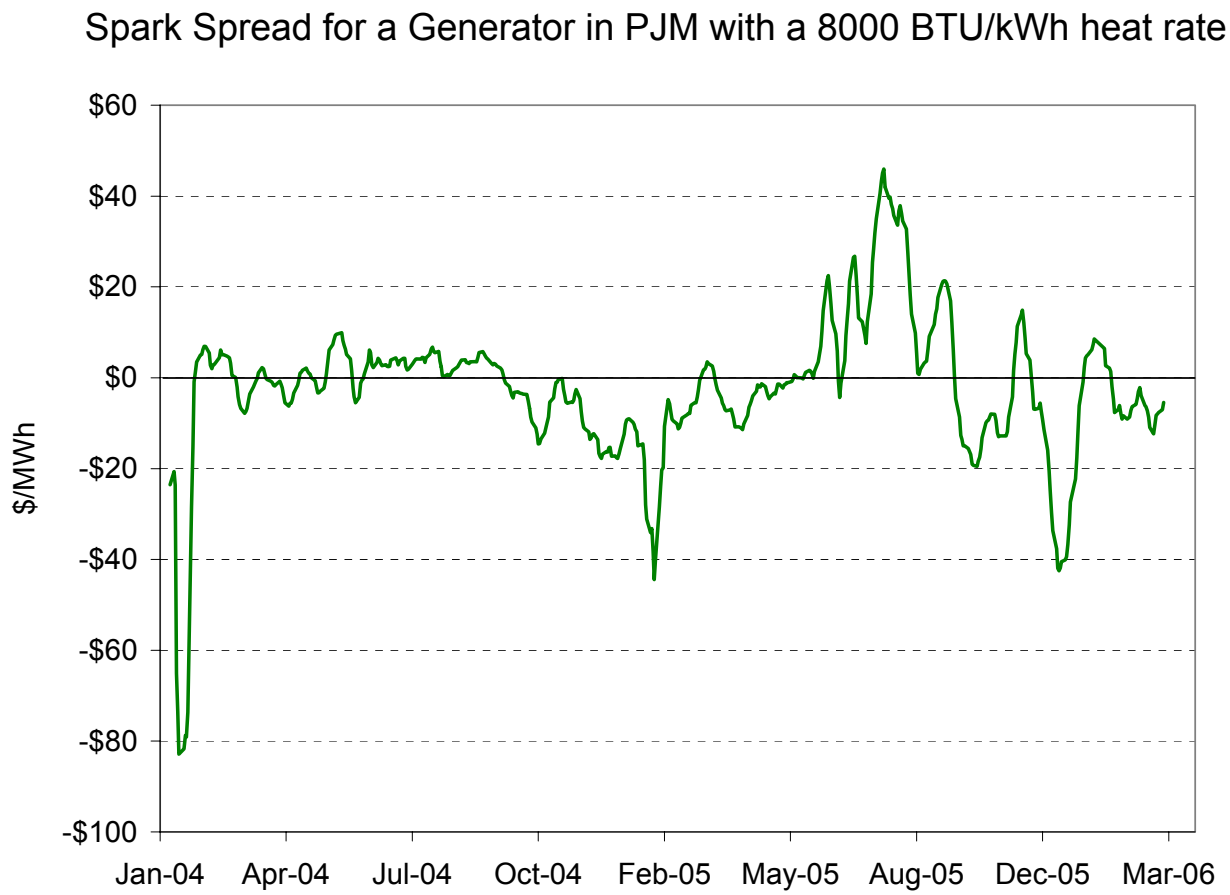
Competition for LNG Supply: Global Gas Prices



Source: Bloomberg

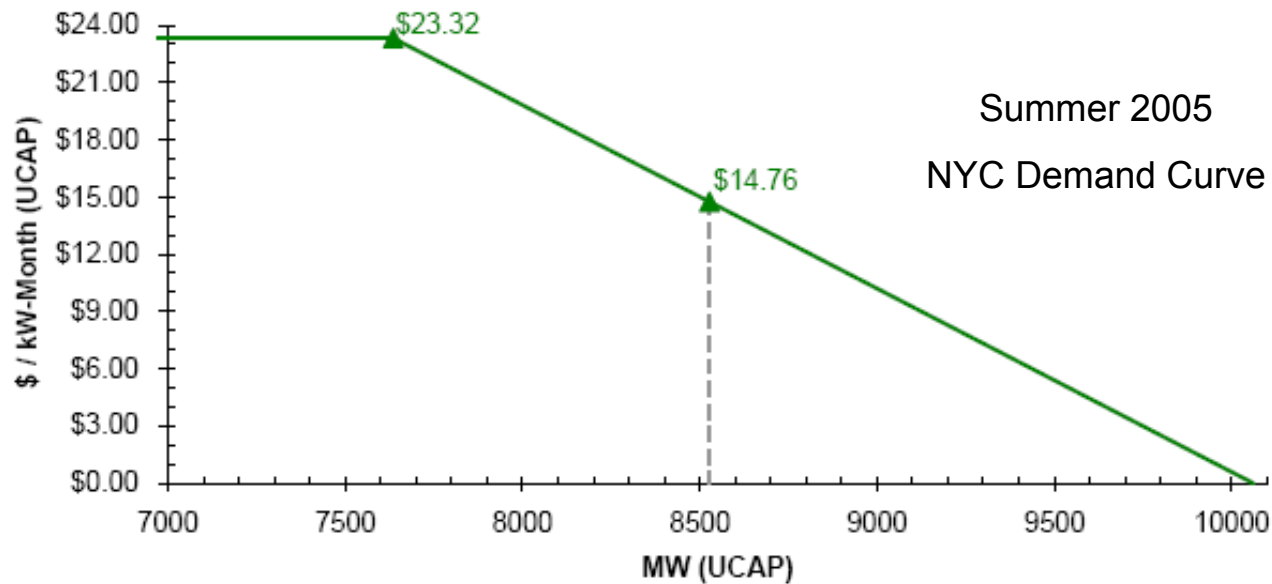
Typical Combined-Cycle Dispatch Pattern

- A combined cycle gas generator dispatches at about 50% of capacity



Capacity Price Solutions

- Sloped Demand Curve adopted in NYC and proposed in PJM



NE Forward Capacity Market (FCM)

- An alternative to LICAP whereby capacity payments will be established competitively thru an annual action
- \approx 4 year transition to FCM
- Structural Attributes
 - Fixed Transition Payments of \$3.05 - \$4.10 per kW-mo thru 2010
 - MW Delivery Commitment Periods = 1 year (existing capacity); up to 5 years (new capacity)
 - MW purchased at auction 3½ years in advance of the Commitment Period
 - Bidding starts at 2x CONE
 - Interim Price collar
 - LSE's required to pay for Installed Capacity Requirement
 - Separate but simultaneous auctions for transmission constrained zones
 - "Reconfiguration" auctions designed to supplement FCM

NE FCM (cont'd)

- Strengths
 - Will induce new entry
 - Will maintain resource adequacy by location
- Weaknesses
 - Short term planning horizon precludes base-load resources and most alternative fuels
 - Heightened dependence on gas fired generation
 - Increased power price volatility

Conclusions

- LSEs in the greater Northeast are highly likely to ensure adequate resources, incl. expensive band-aids
- Merchant model untenable for generation and transmission
- Disincentives to invest in base-load generation
- Demand curve frameworks – including RPM and FCM – heighten reliance on natural gas, but certainly hinder attrition