



Bureau of Economic Geology, The University of Texas at Austin

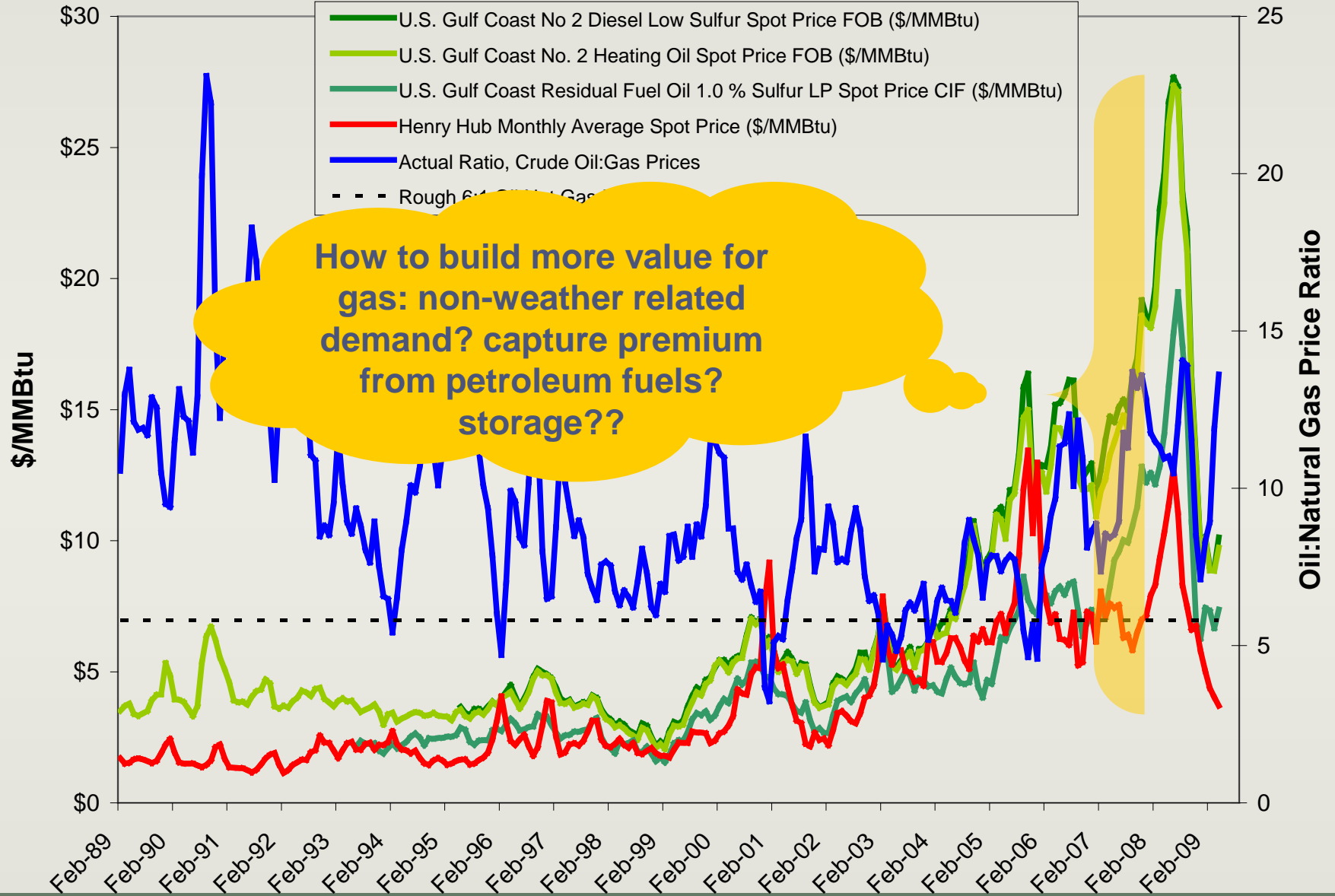


Understanding and Mitigating Volatility
Clean Energy Tech, May 5, 2009

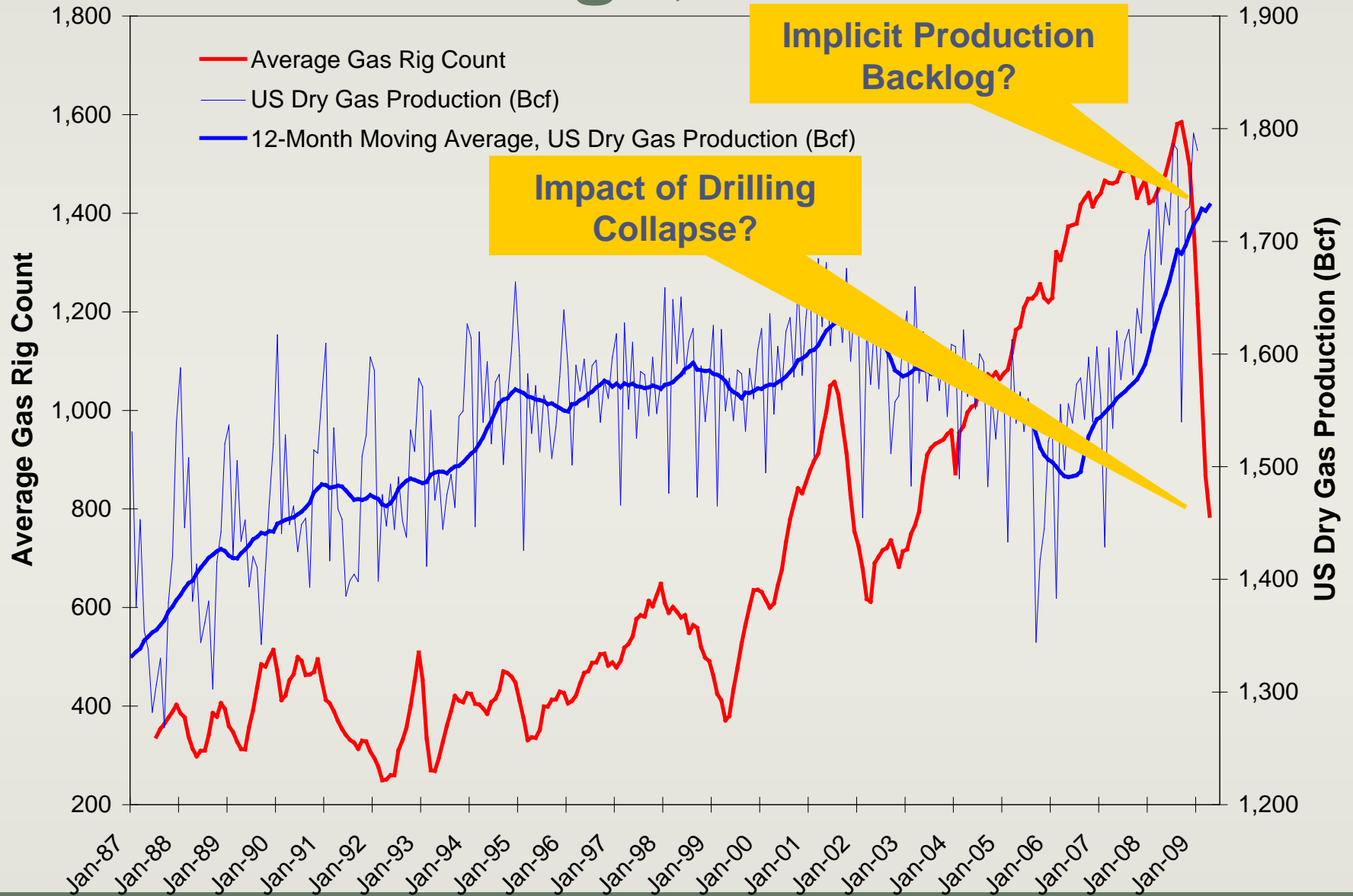
Overall Perspectives

- 1970s & 1990s “redux”
 - Similar policy/regulatory disconnects on reliability, deliverability
 - Political “PR” benefit of mitigating volatility
- GHG policy inevitably “pushes” gas
 - Insufficient technology to deploy, timing uncertainties
- Oil and gas tax policies hinder development
 - IDCs are particular challenge for continued drilling and exploitation

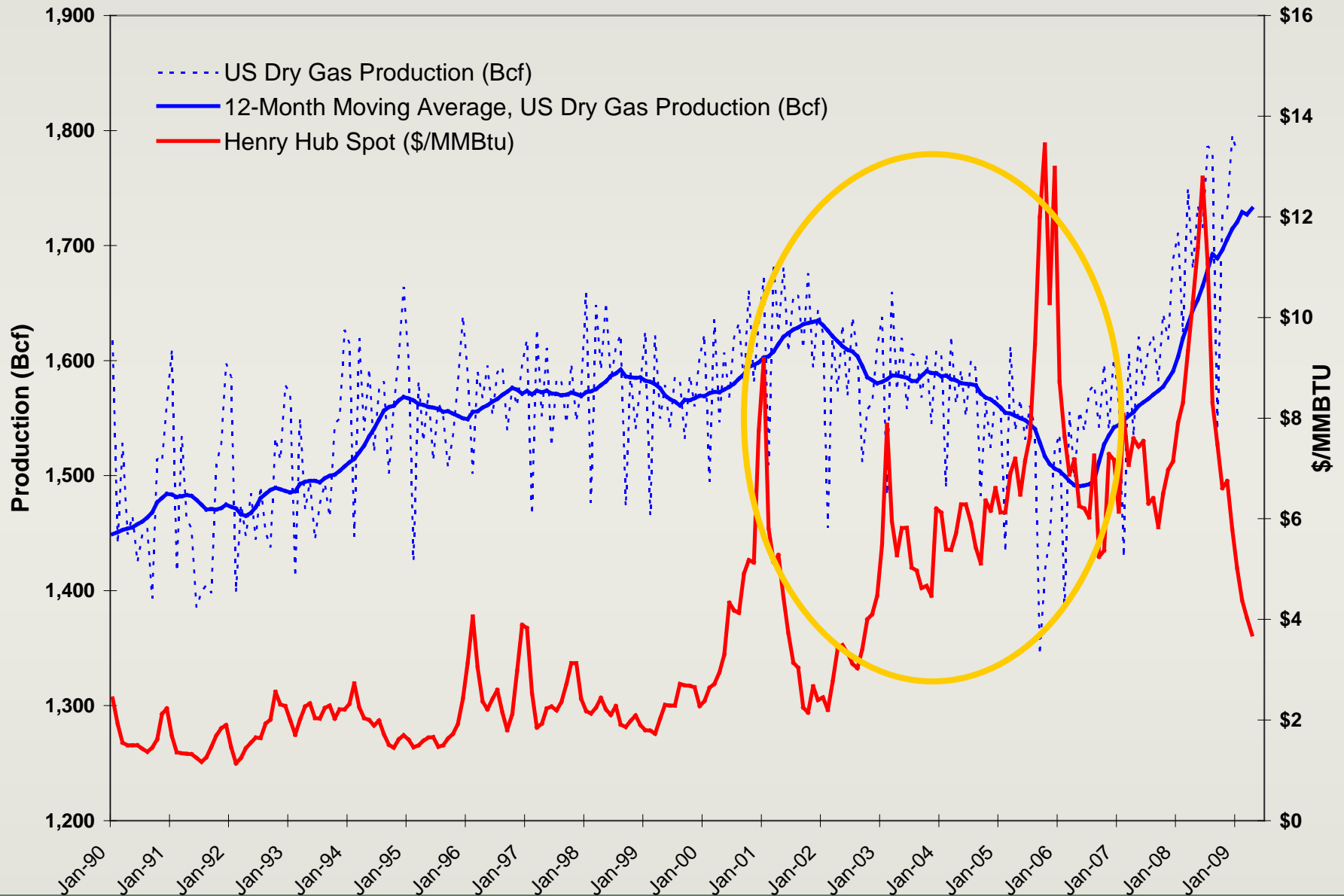
Natural Gas vs. Petroleum Prices



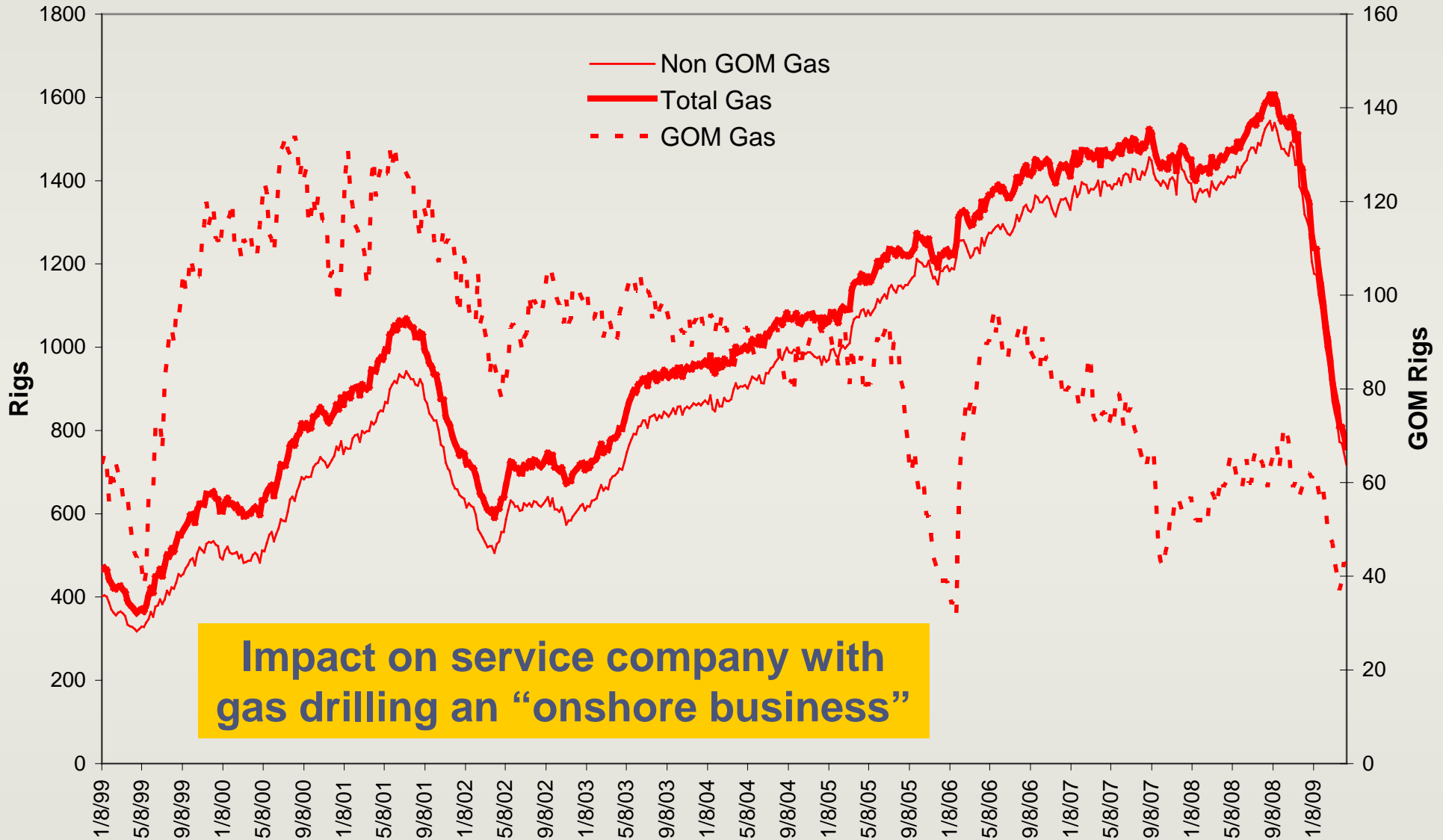
US Gas Rigs, Production



Gas Production and Price

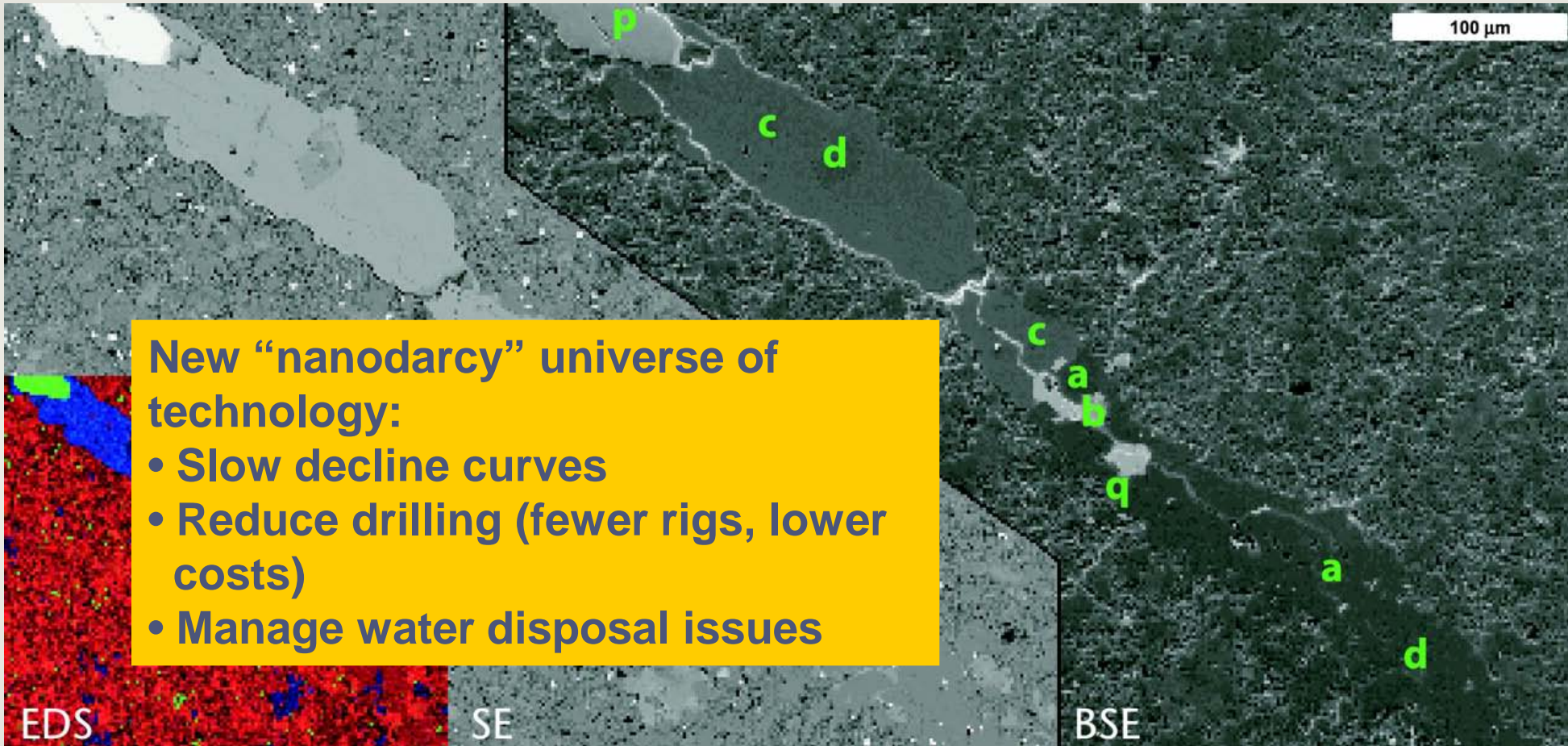


Baker Hughes Weekly GOM & Onshore Gas Rigs



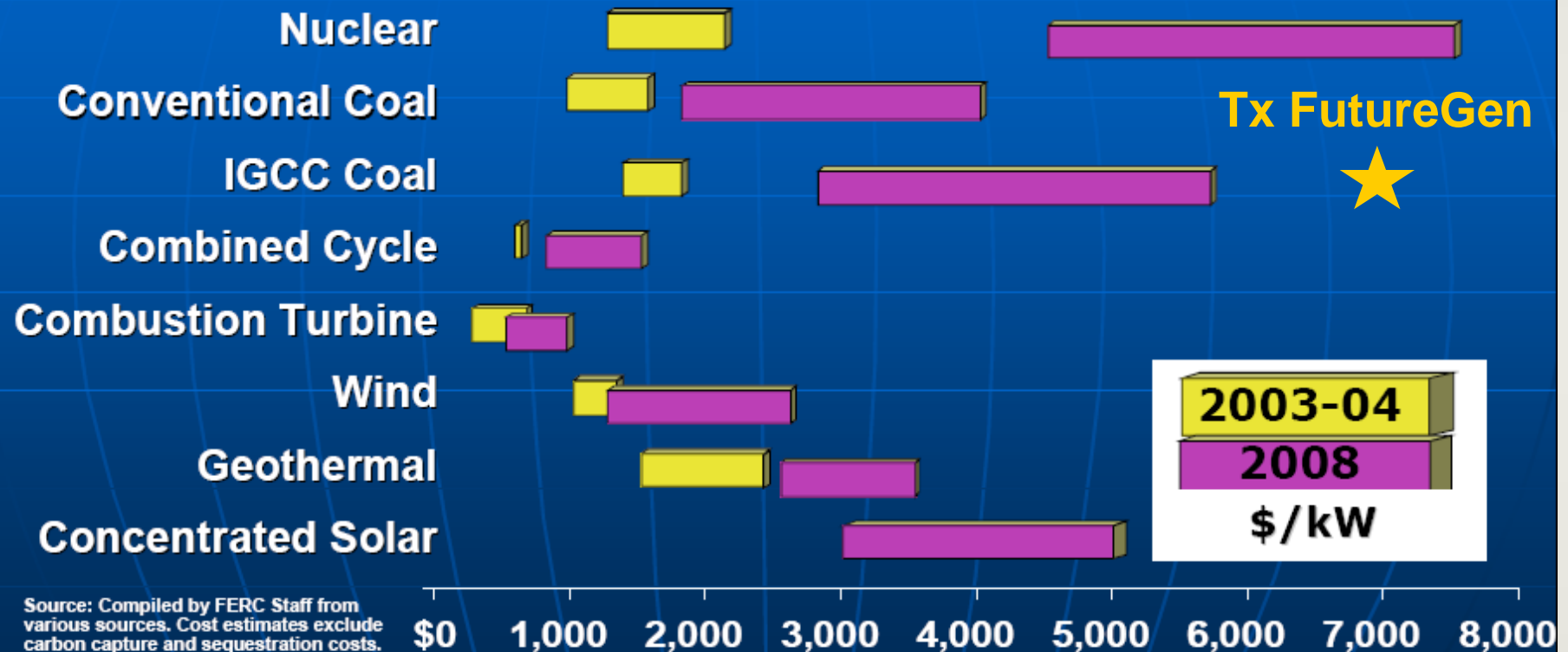
Impact on service company with gas drilling an “onshore business”

Electron Imagery of Barnett Fractures

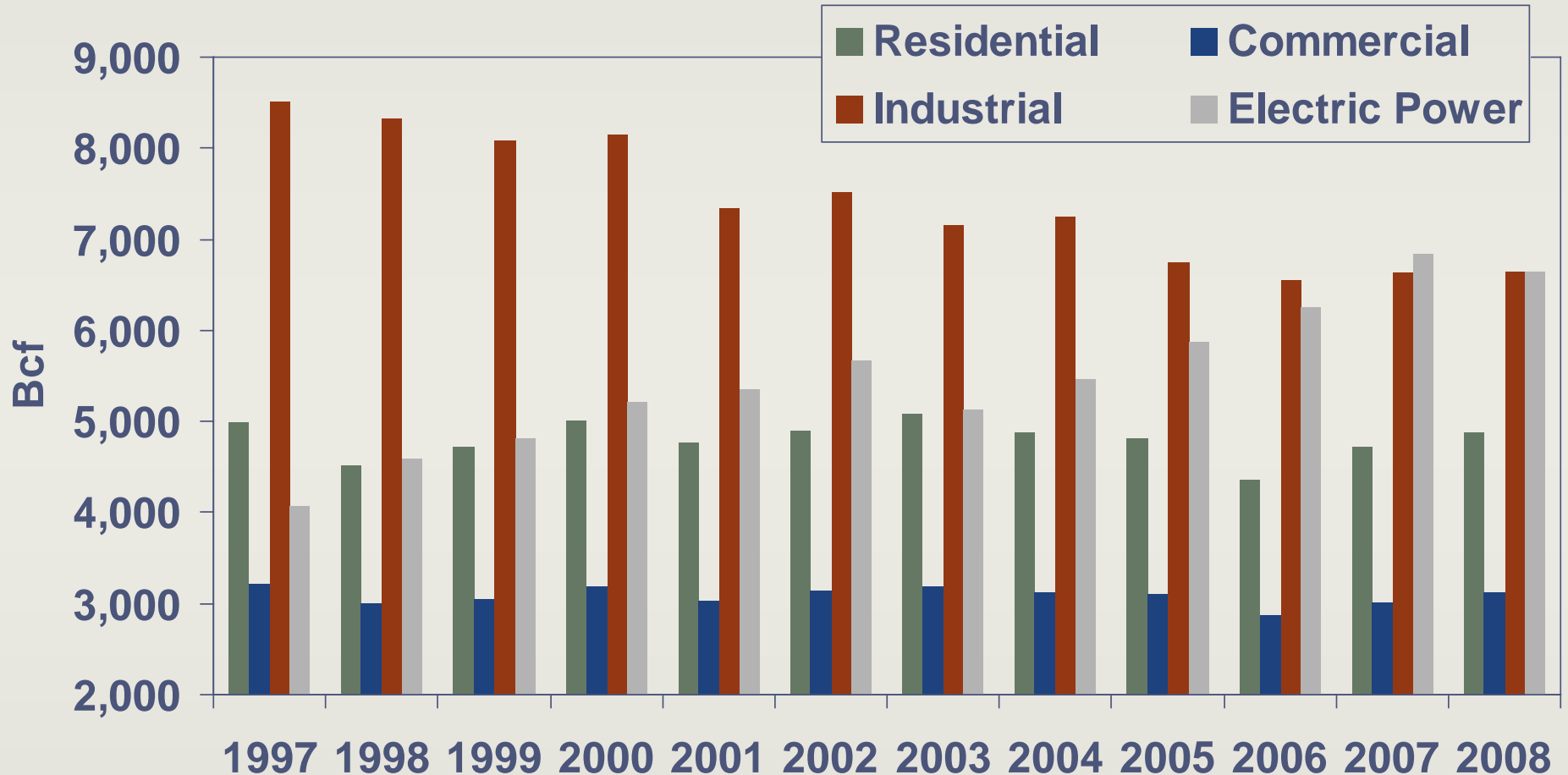


Gale, J. F. W., Reed, R. M., and Holder, Jon, 2007, Natural fractures in the Barnett Shale and their importance for hydraulic fracture treatments: AAPG Bulletin, v. 91, no. 4, p. 603–622.

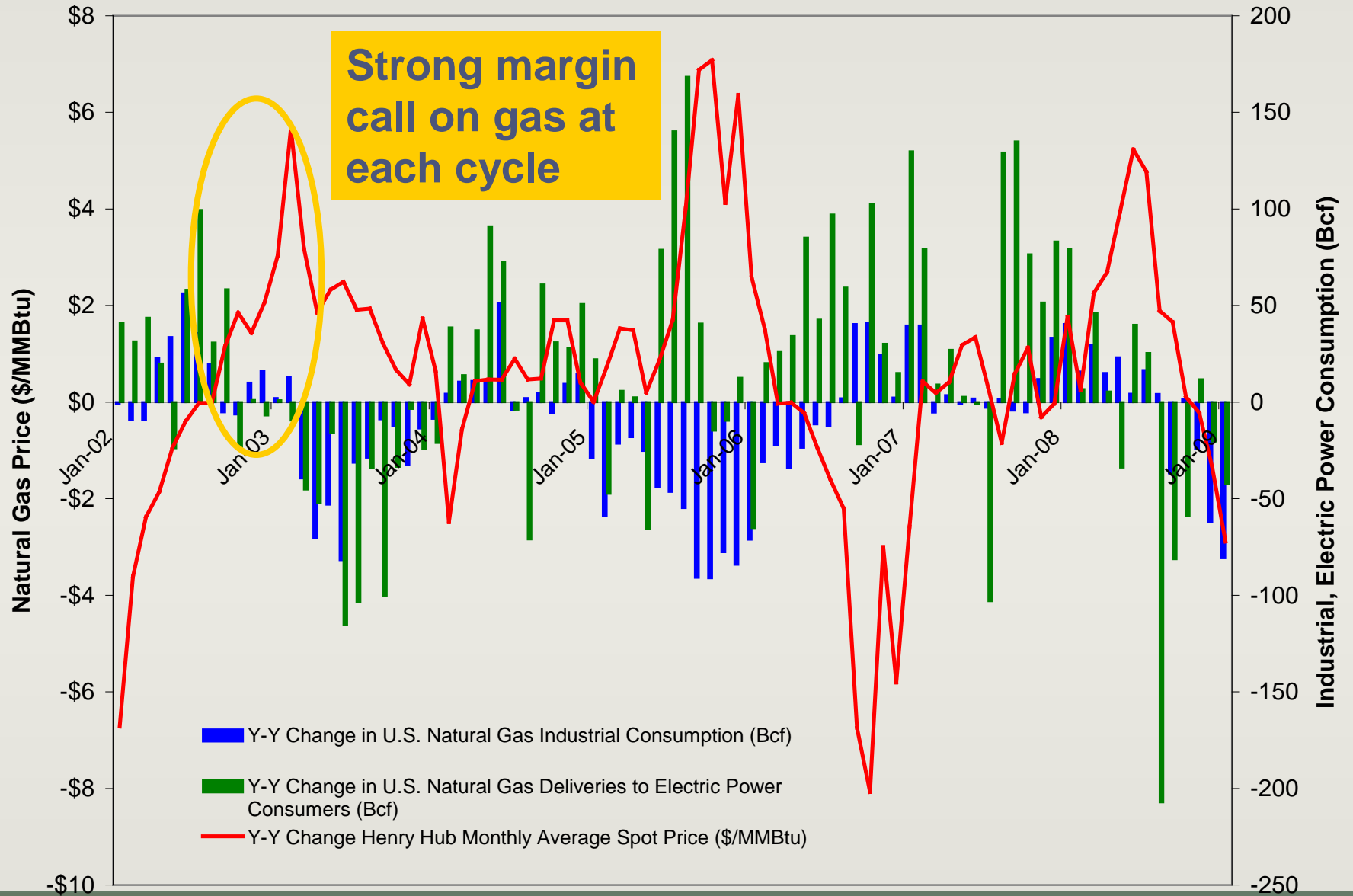
Estimated Cost of New Generation



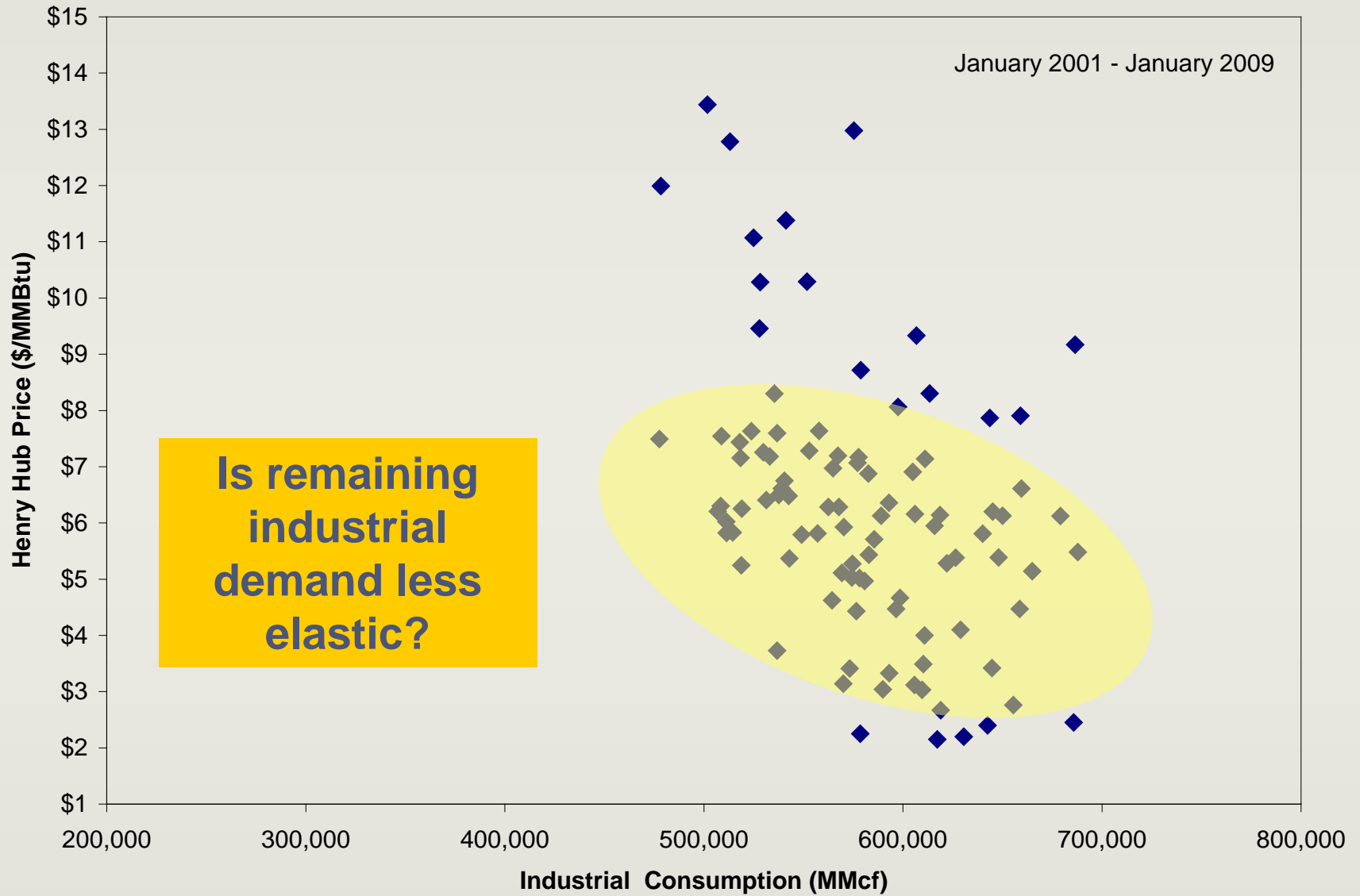
Natural Gas Demand Factors



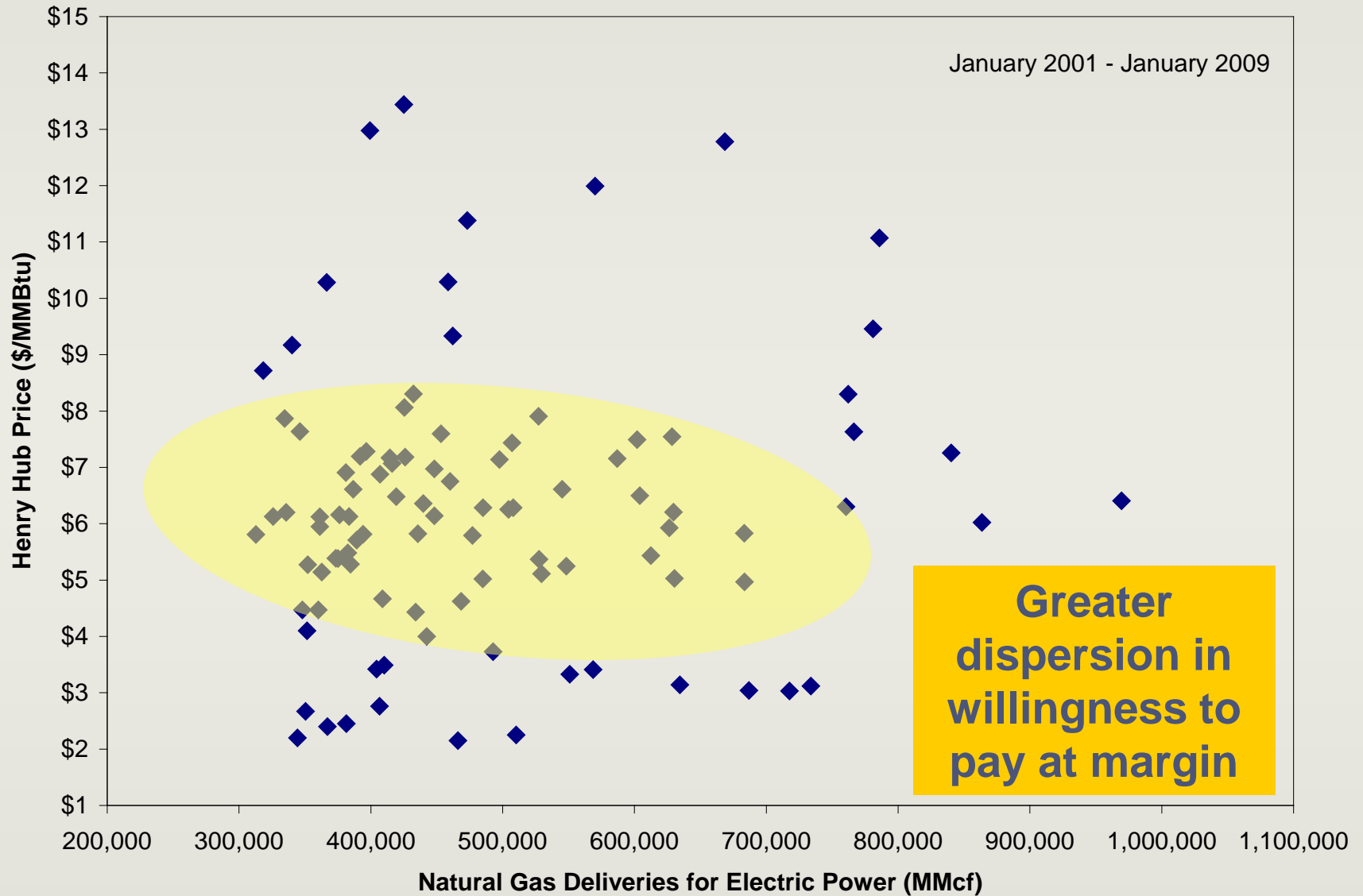
Power Gen Adds "Peakiness"



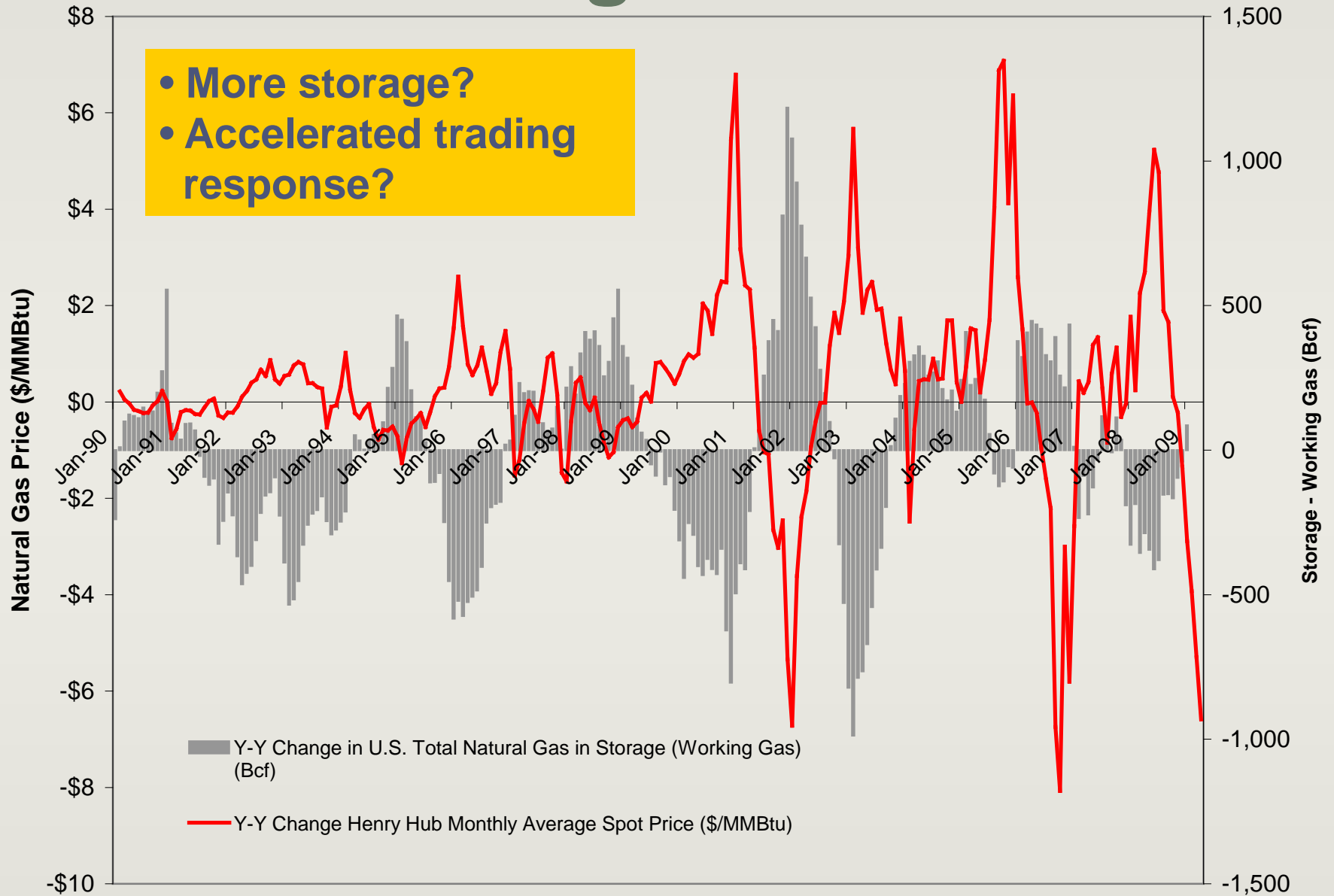
Industrial Demand and Price



Electric Power Demand and Price



Tough Love



Law of Unintended Consequences is Bipartisan

Center for Energy Economics

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