

# Personal Energy Risk

April 28, 2005

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# Overview

- Shell Trading snapshot
- Before the meltdown
- Early Entrants
- Current environment
- Why manage commodity risk?
- What worked and what didn't?
- What remains to be done?



# Shell Trading...



-  Crude Oil Trading
-  Products Trading
-  Natural Gas Trading
-  LPG Trading
-  Power Trading
-  Environmental Products Trading
-  Spot Chartering
-  Shipping

... A global business



# Before the Meltdown

- Large number of potential counterparties
- Far greater liquidity in power markets
  - Enron Online, Duke, CMS, Dynegy, El Paso, and others
- Market capitalization was more important than credit rating
- Indifference to deal term vs. provider credit strength



# Early Entrants into Retail Power

- Enron
  - Quickly gained market share by providing comprehensive risk management services (gas, power, water, boilers, chillers, lighting, and demand response) for commercial and industrial customers. Entered into many long term deals with companies like Chase Bank, IBM, JCPenny's, Starwood Hotels, and Eli Lilly
  - Obviously some contracts were not profitable, but it is not clear how the retail business would have done over the long run.
- Other early movers, such as New Energy, Strategic Energy, Green Mountain, and Sempra were not as aggressive as Enron, but have been able to develop a sustainable growth strategy.
- Many that focused on residential markets were not successful, such as New Power and Shell Energy Services.

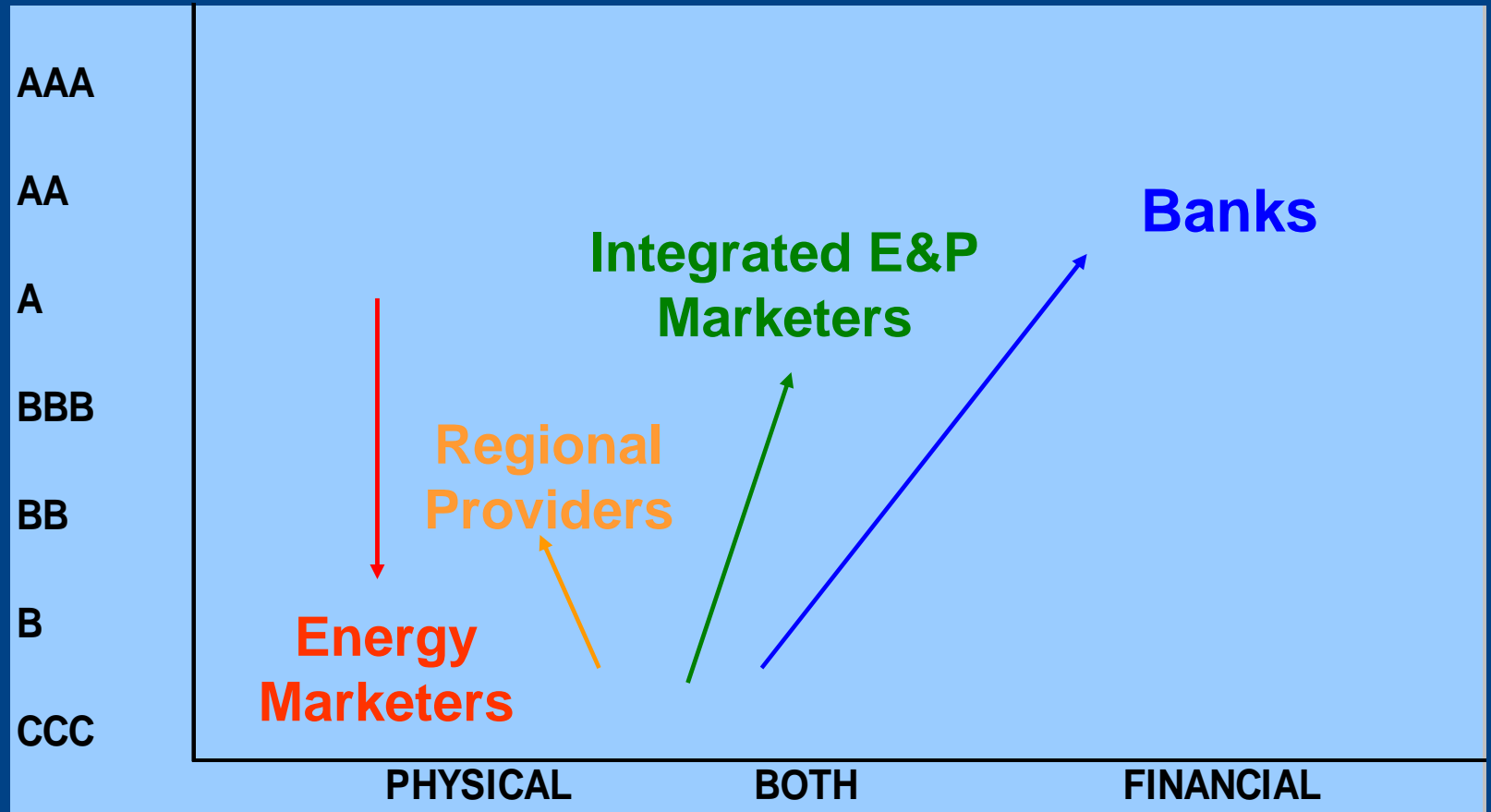


# Current Lay of the Land

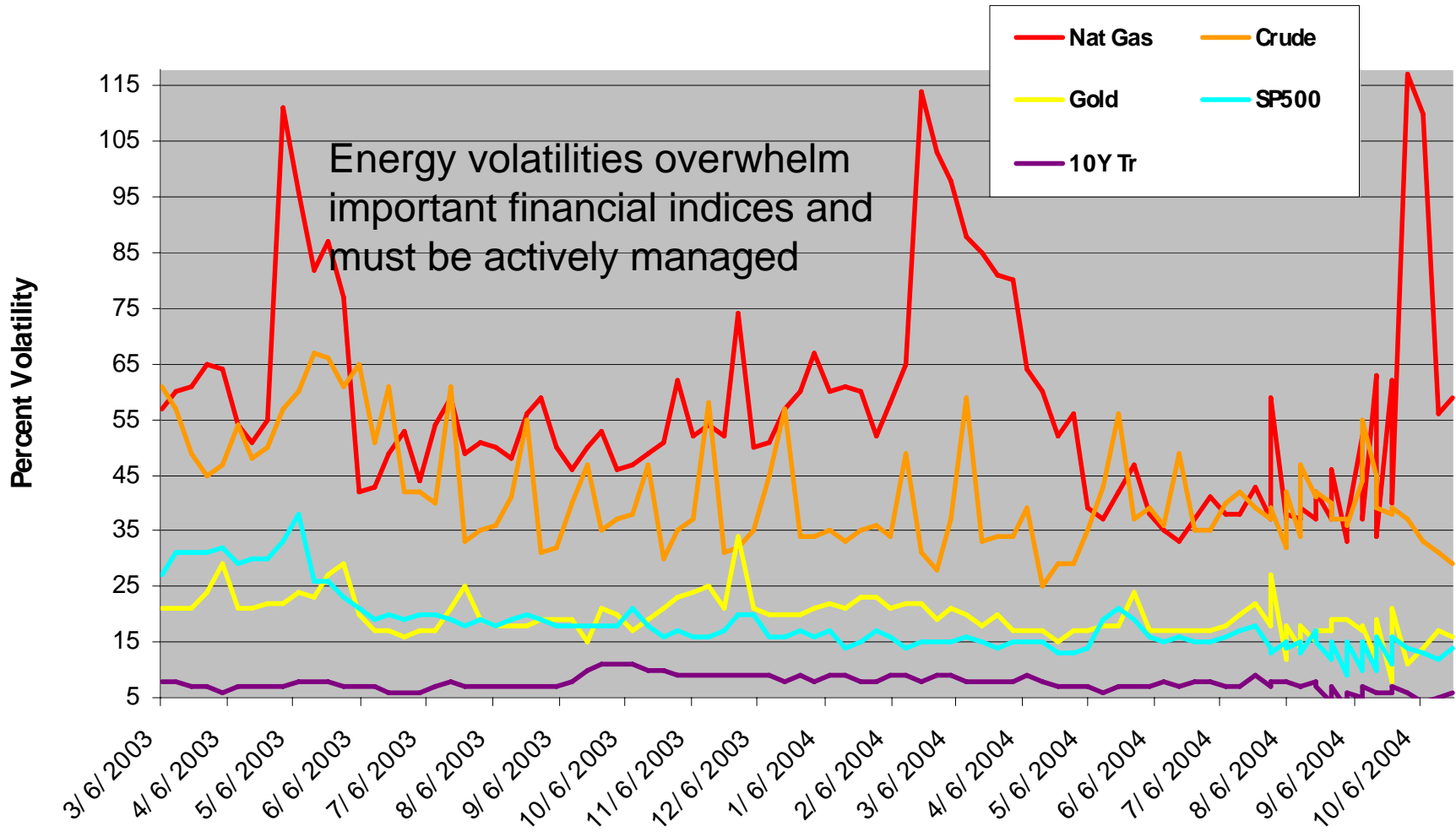
- Fewer strong counterparties
- Far less liquidity in power markets
- Some indexing of power to gas (Heat Rate products) to take advantage of risk products available in gas markets
- Slow down of retail power deregulation
- Non-RTO regions in the southeast and pacific northwest have no financial products for power



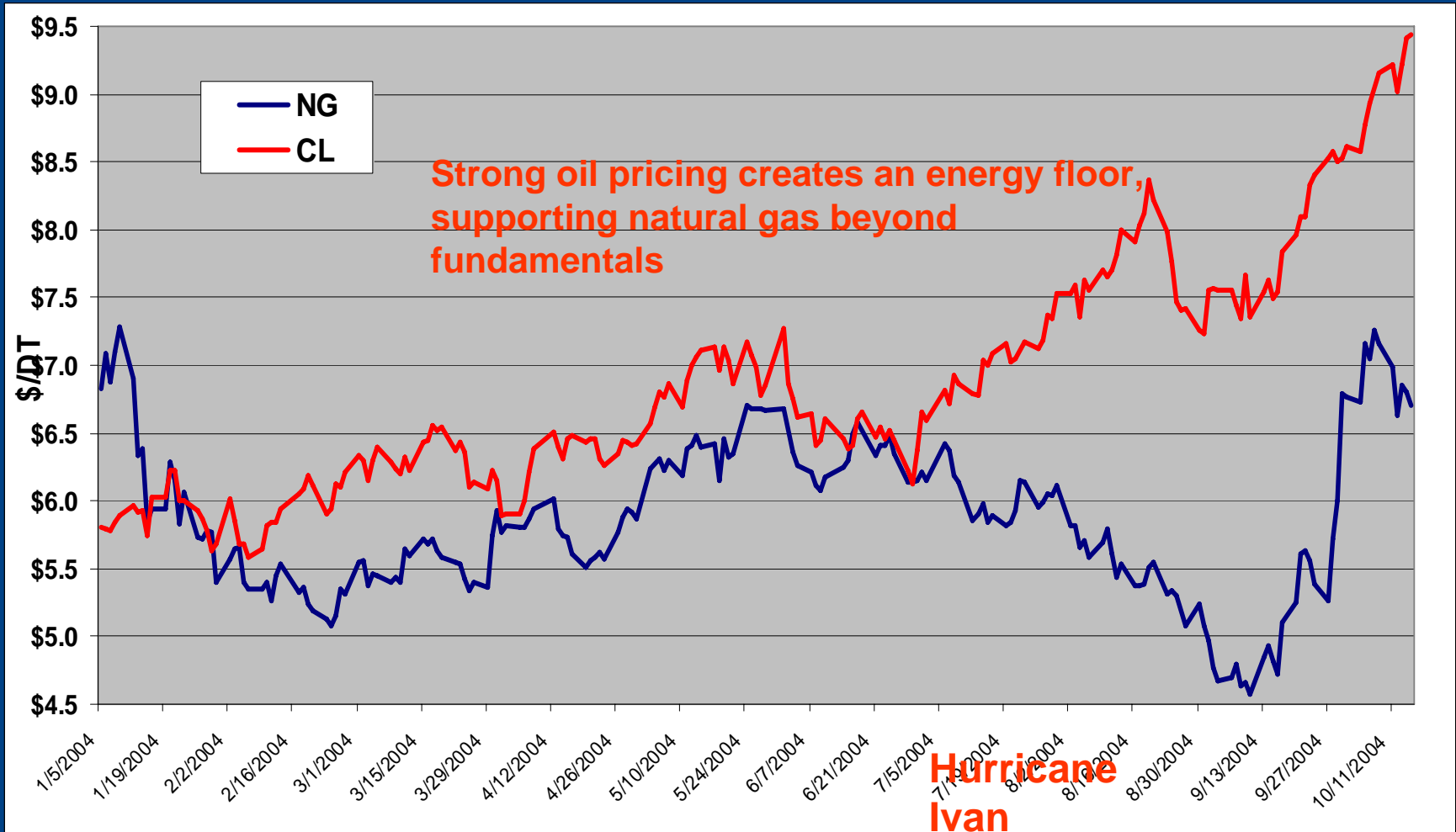
# Filling the Gap



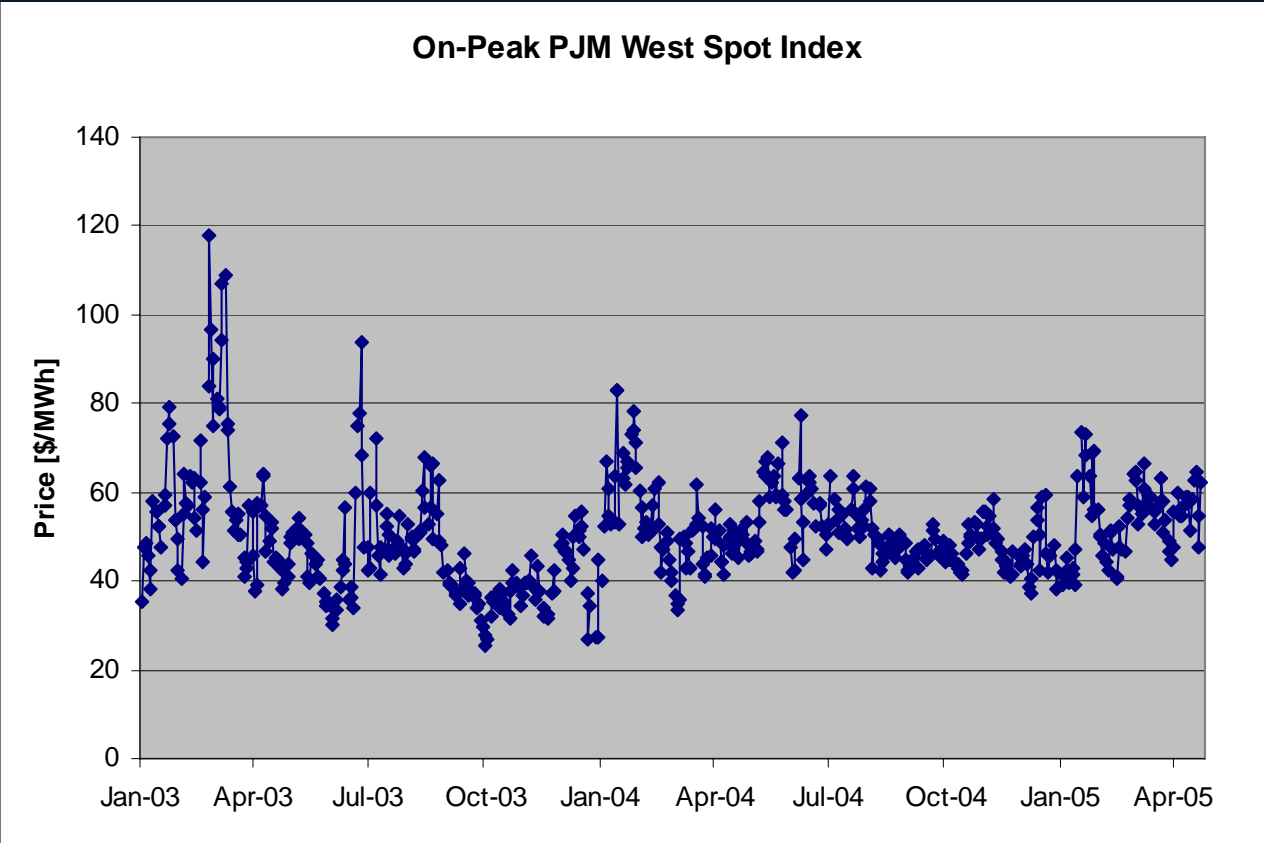
# Energy Volatility



# Energy Prices – Crude and NG



# Power Prices – PJM West



Ivan



# Market Drivers

- Tighter natural gas demand & supply balance
- Global oil prices lifting floor & promoting volatility
- Stronger economic growth both in US & globally
- Rate of industrial demand destruction slowing
- Growing reliance new natural gas power generation
  - In many areas this is the marginal fuel
- Reduction in power trading depth & liquidity



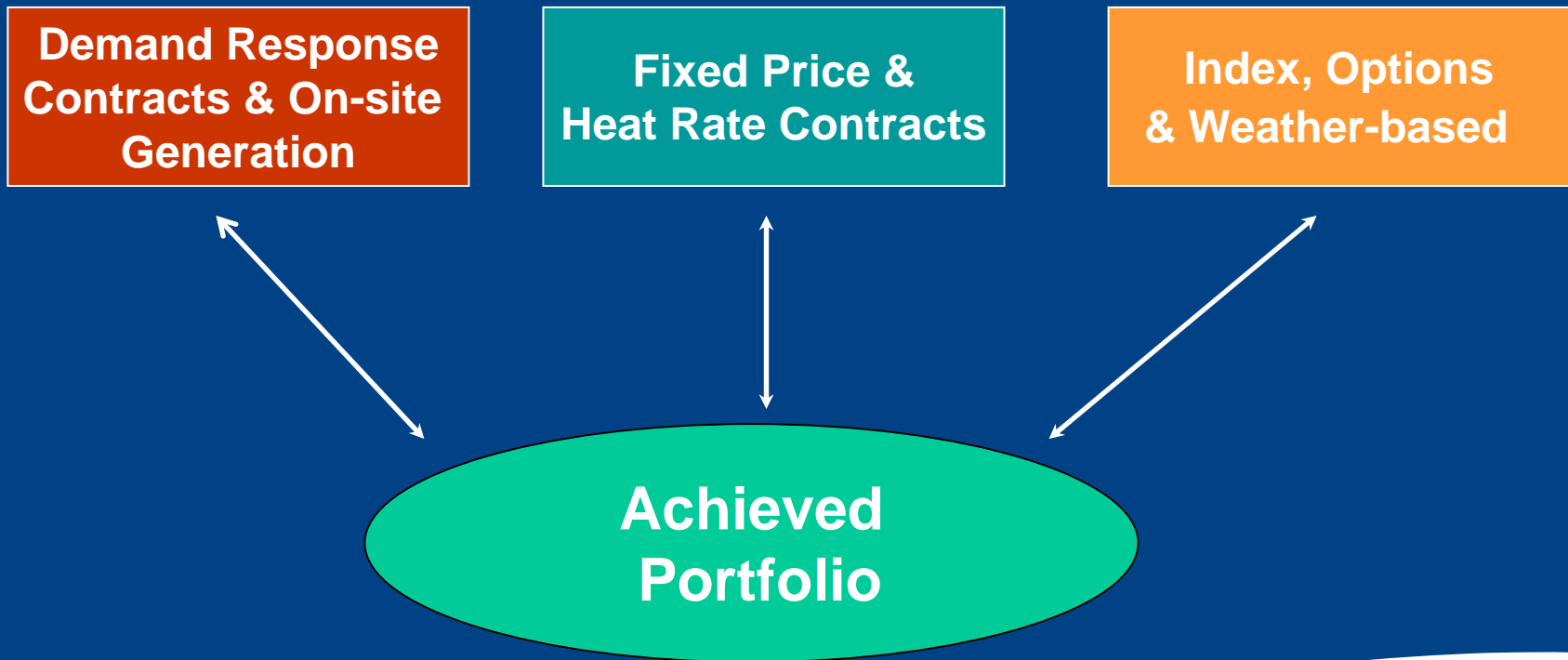
# Goal of Risk Management?

- Retailers ...typically want stable earnings
  - Supply contracts should mirror customers portfolio
- Customers...each is different and dependent on several factors
  - Budget certainty
  - Their costs need to be in line with their competitors costs of energy
  - Is energy a large part of their overall production costs and will impact profitability (e.g. metals processing)?



# Retailer/Customer Energy Portfolios

- Build portfolios, strategic or tactical, that meet or exceed goals across risk management products.



# What Worked? What Didn't?

## Successful risk management strategies for retailers

- Some have chosen to buy generation to hedge their portfolio
- Some have chosen to use power marketers to manage their risks
- Small retailers are using lock boxes, which can be useful

## Not so successful strategies

- Buying a large percentage of supply from the real time energy markets
  - Forced one retailer into bankruptcy in Texas



# What Remains to be Done?

- Complete development of competitive wholesale markets across the U.S. (RTOs/ISOs)
- Development of liquid financial markets in power, similar to gas
- Greater uniformity (States/Regional)
- Regulatory certainty
  - Need clear understanding of jurisdictional boundary between states and FERC
  - Confidence that investment in generation won't be undermined by market mitigation policies



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