





# Risk Management





# Risk Management – What is it?

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- Dictionary definition - the technique or profession of assessing, minimizing, and preventing accidental loss to a business, as through the use of insurance, safety measures, etc.
- Risk management provides a proven methodology to control costs and minimize the impact from volatile prices in today's energy markets
- A risk management program provides a method to lock-in energy prices that are within your budget
- A risk management program does NOT guarantee the lowest price



# Who Benefits From Risk Management Program?

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- Organizations with fixed energy budgets (dollars)
- Organizations that require price stability
- Organizations that have specific price goals (stabilization)
- Organizations that understand the volatile nature of the energy markets and the problems they represent



# Case Study - Southwest Airlines

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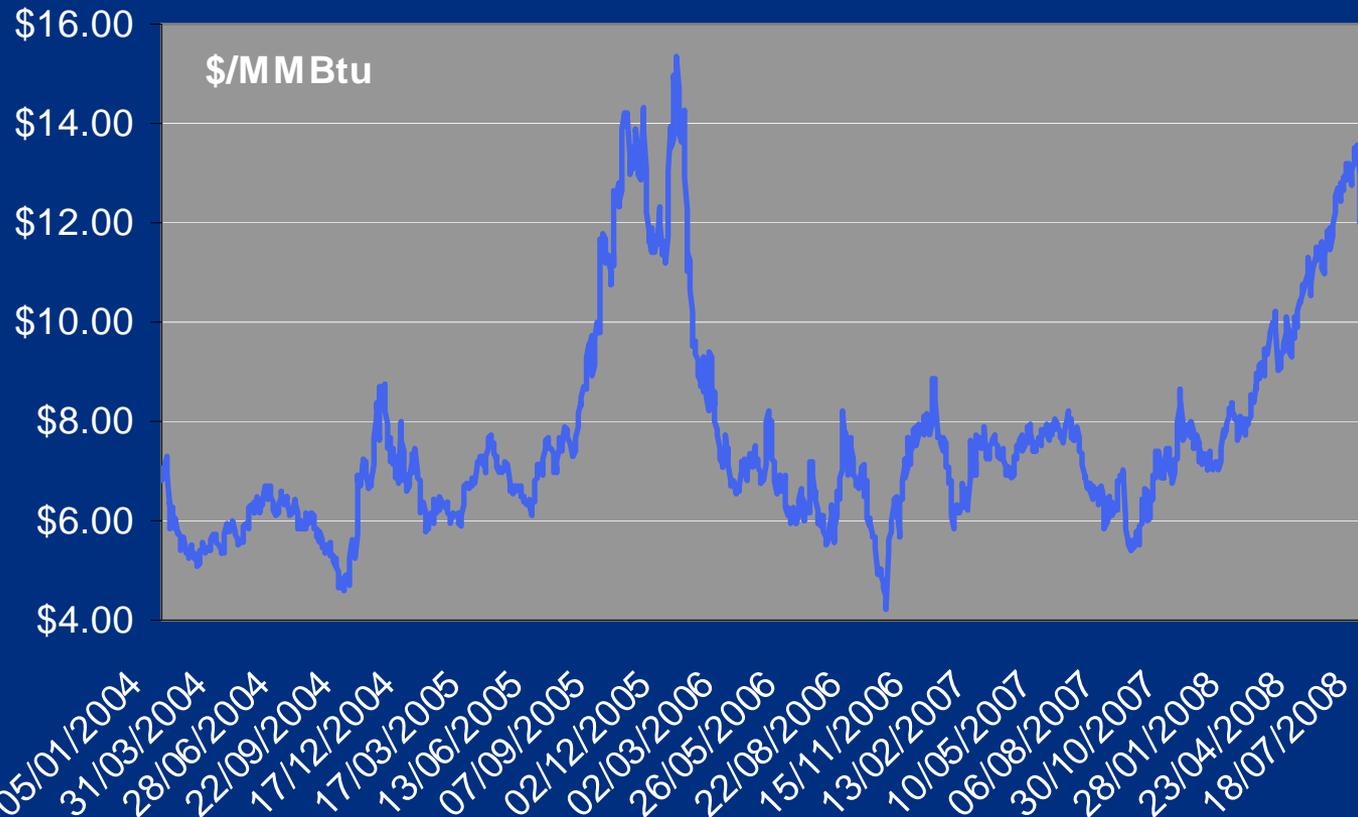
- Mature risk management program
- Unlike other airlines, Southwest hedged 70% of their fuel costs for 2008.
  - Hedged price: \$51/barrel
  - Based on protecting budget
- Company has used a risk management program to profit while other airlines have struggled with losses.

Source: <http://articles.latimes.com/2008/may/30/business/ft-southwest30>

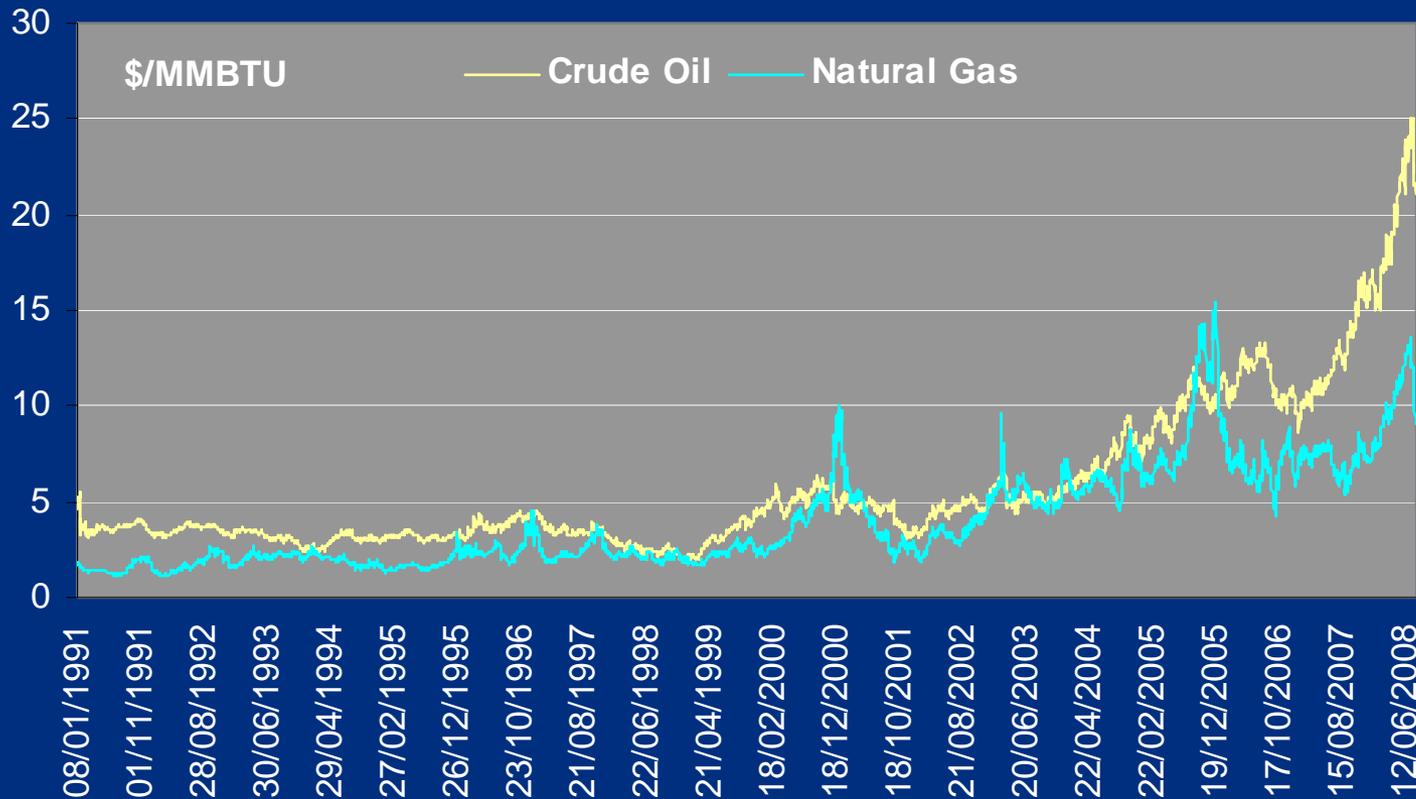


# Historical Rolling Prompt Contract

## NYMEX Prompt-Month Price of Natural Gas, 2004-Present

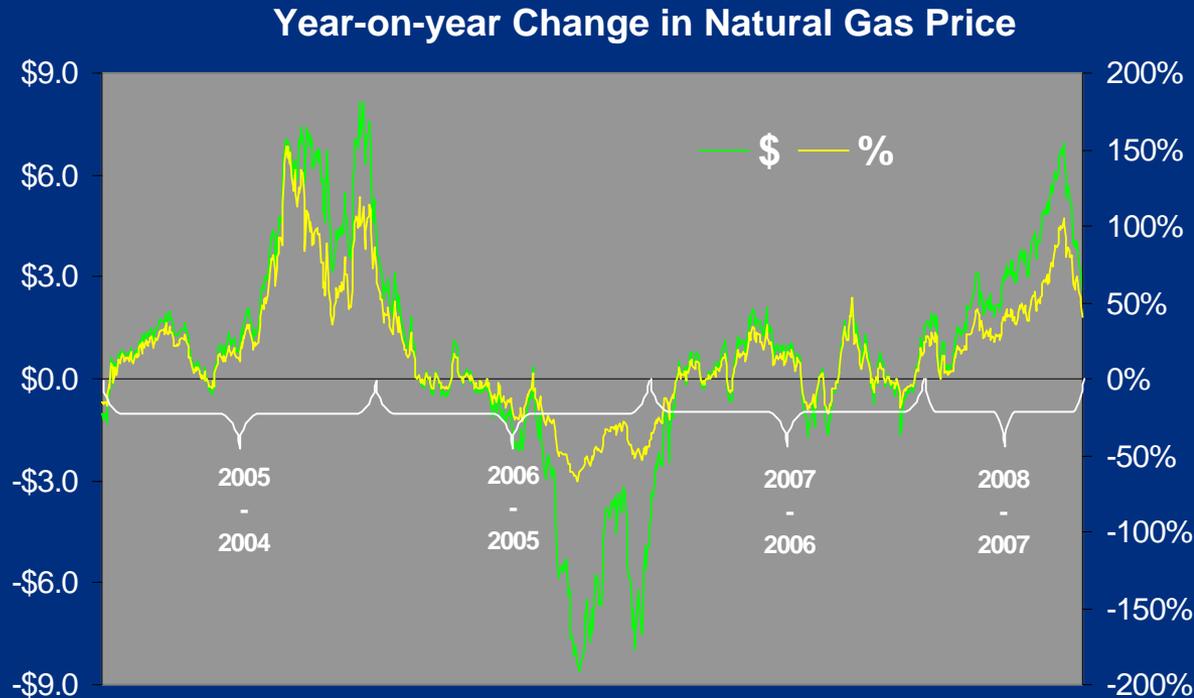


# Commodity Correlation



# Natural Gas Prices Year-on-year Change

- Fact remains that natural gas prices are incredibly volatile in the short-term
- Over the past three years, natural gas prices have not reached a relative equilibrium point
- Prices continue to swing as much as 150% in either direction compared to the prior year
- We have yet to enter peak gas price season for winter 2008/2009

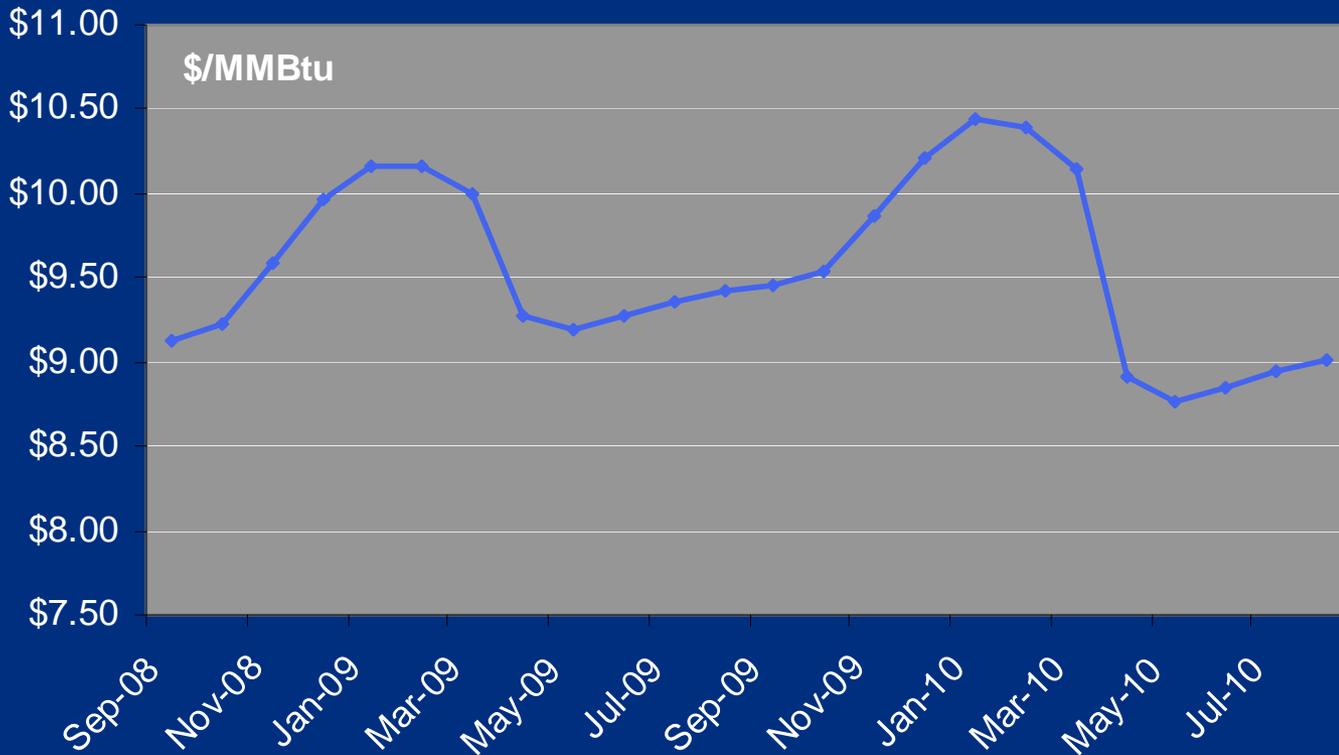


Source: BAH, Thomson Reuters



# Looking Forward

## Forward Prices for Natural Gas





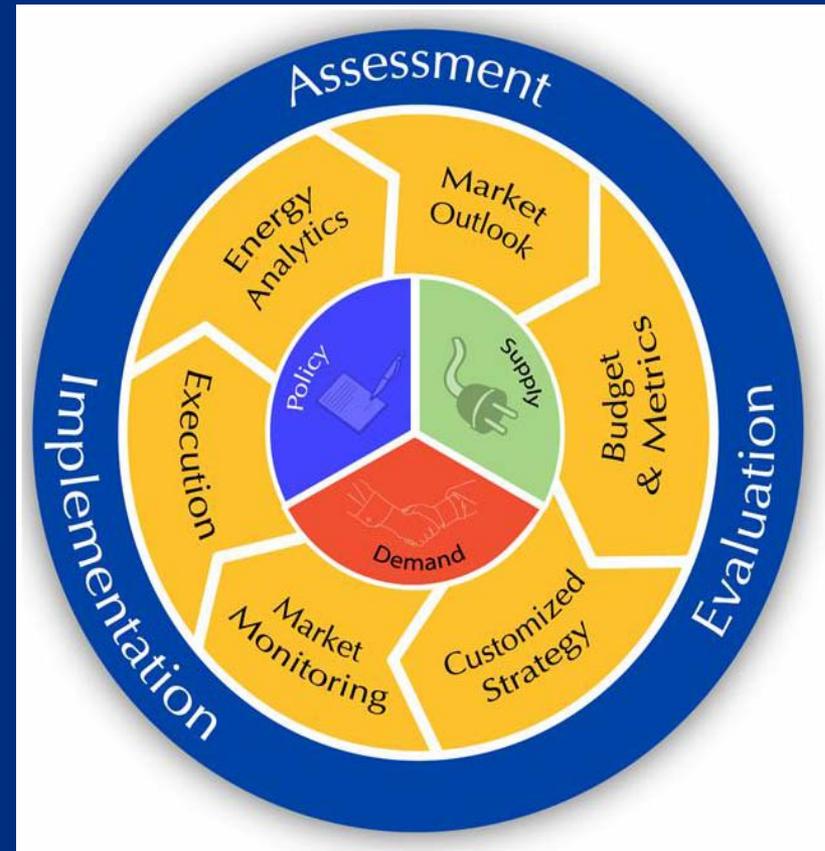
# Key Natural Gas Metrics to Monitor

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- **Supply Portfolio Transformation**
  - Increased reliance and vulnerability to LNG market
  - Decline in stable imports from Canada
- **Global Oil Prices**
  - World oil prices create an artificial floor price for natural gas
  - Extreme changes in oil prices push natural gas prices higher
- **Regulatory Changes**
  - Carbon costs imposed on utilities promote the consumption of “clean” natural gas
  - Renewable energy requirements need natural gas for complementary power
- **Technology Developments**
  - Reduces cost to find and produce domestic resources
  - Increases efficiency of new gas-fired generation

# Risk Management Process

- Energy Analytics – Energy markets are connected
- Market Outlook – Understand where the market is going
- Budget and Metrics – Define success
- Customized Strategy – Everyone is unique
- Market Monitoring – Daily monitoring is critical
- Execution – Organizations must move quickly to lock-in prices





# Budgets and Metrics

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- Developing solid budgets and metrics is key to successful risk management program
- Organizations with a known budget are more likely to use a risk management approach
- Budgets must be realistic and consider current energy prices

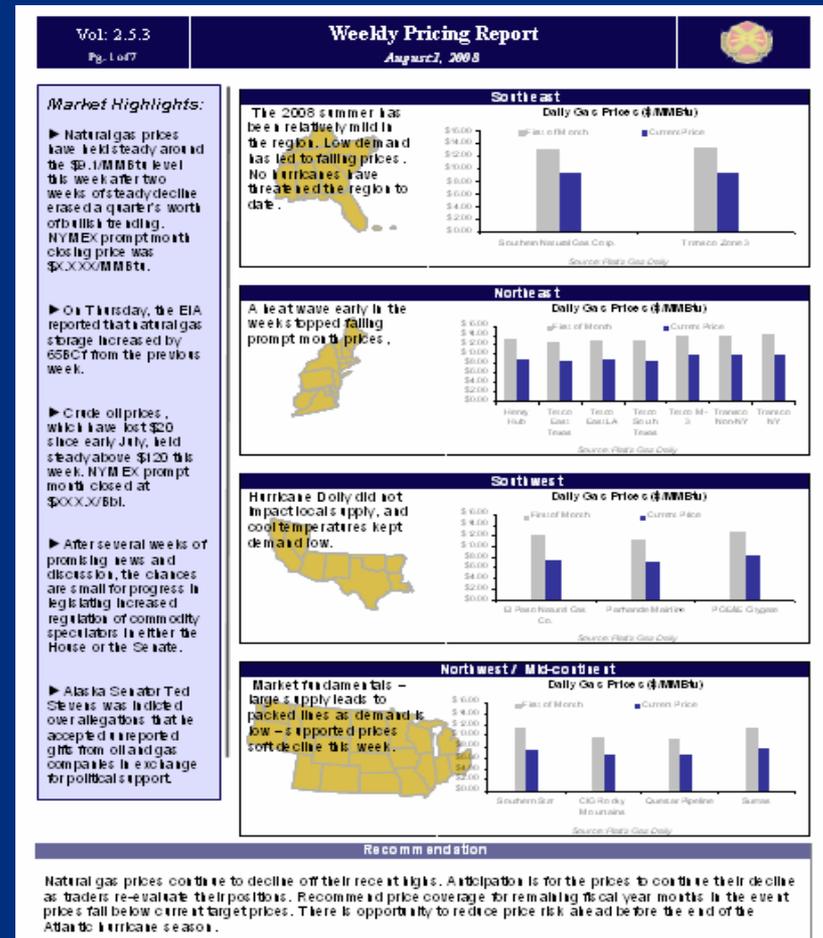
# Customized Strategy

- Strategy is based on unique situation of each organization – must understand how the natural gas is used, heating and/or industrial load
- The risk appetite varies by organization and individual
- Understand the upper limits of the quantity that can be locked-in is a key step to the strategy
- The strategy provides different options for layering in prices as the market moves up and down

	January	February	March	April
<b>Historical Usage</b>				
FY 1999	28,861	20,389	15,570	9,951
FY 2000	29,771	20,567	17,234	7,651
FY 2001	33,673	21,864	17,800	7,544
FY 2002	33,980	29,348	19,636	5,472
FY 2003	26,048	24,028	19,404	7,834
FY 2004	26,666	27,161	12,696	6,190
<b>Projected Usage</b>				
FY 2006	33,200	28,700	19,200	7,350
Historical Mean (Dkthm)	29,833	23,893	17,057	7,440
Historical Median (Dkthm)	29,316	22,946	17,517	7,598
Diff. Mean/Median (%)	-1.76%	-4.13%	2.63%	2.07%
Median/Projected (%)	88.30%	79.95%	91.23%	103.37%
Load Sensitivity (70%)	OK	OK	OK	OK
Load Sensitivity (75%)	OK	OK	OK	OK
Load Sensitivity (80%)	OK	Sensitive	OK	OK
Load Sensitivity (85%)	OK	Sensitive	OK	OK
Load Sensitivity (90%)	Sensitive	Sensitive	OK	OK

# Market Monitoring and Execution

- Keep up-to-date with the market and understand why the market is moving in certain directions
- Be ready to execute the strategy
- Brief leadership on the results of the program
- Institutionalize the process





# Conclusion

- Energy markets are going to remain volatile
- Organizations with clear price goals or budgets will benefit from a risk management strategy
- A risk management strategy provides price stability, it does NOT guarantee the lowest price
- A risk management program provides organizations a methodology to control the price paid for energy
- Develop a personal risk management strategy for your gasoline purchases - [www.mygallons.com](http://www.mygallons.com)



# QUESTIONS?



# Would you like to know more about this session?

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- Don't forget to fill out and drop off your session evaluations.