PUCO

Regulatory Responses to Natural Gas Price Volatility

Commissioner Donald L. Mason, Esq.
Vice-Chairman of NARUC Gas Committee
Vice Chairman or the IOGCC

Overview of the 2003-2004 Winter Heating Season

- The average Ohio home uses between 105-120 mcf of natural gas annually.
- 75% of consumption is between November 1st and March 31st.
- The average cost of natural gas is $2.26/mcf higher than the previous two years.
- The weather should be normal this year.

Price Comparison

- Normal winter means colder than last five years
- November 2003 NYMEX is $4.87/mcf
- October 2002 NYMEX for November 2002 was $4.24
- October 2001 NYMEX for November2001 was $2.61
- $2.26 difference in two years

Working Gas in Underground Storage

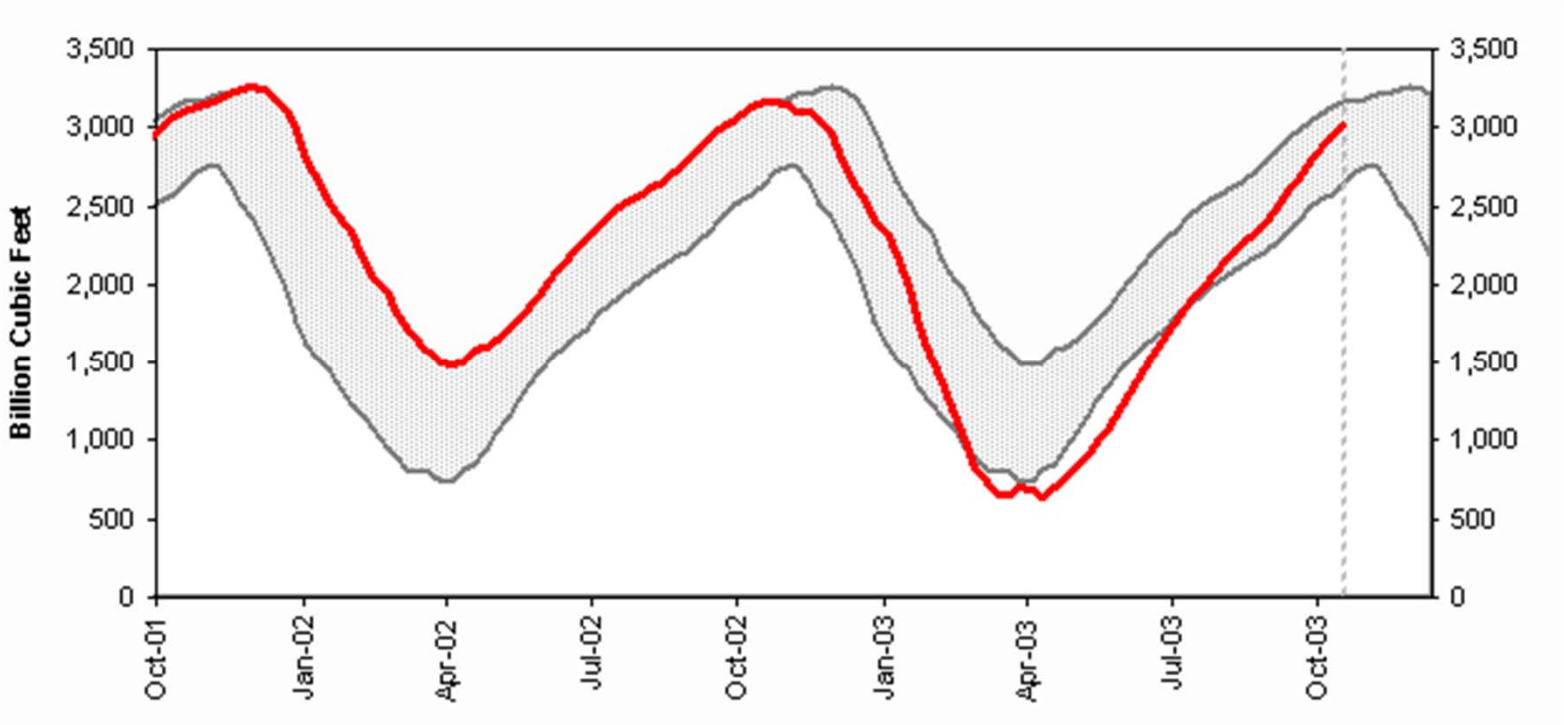
Region	Stocks (Bcf) for October 17, 2003	Stocks (Bcf) for October 10, 2003	Implied Net Change (Bcf)	Year Ago Stocks (Bcf)
East	1,810	1,758	52	1,859
West	392	381	11	415
Producing	826	805	21	887
Total Lower 48	3,028	2,944	84	3,161

Region	5-Year (1998-2002) Average Stocks (Bcf)	Difference from 5-Year Average (Percent)	Survey Sample Coverage (Percent) 1/	Estimated Std. Error for Current Week Working Gas Stock (Bcf) 2/
East	1,816	-0.3	90	53
West	368	6.5	92	35
Producing	819	0.9	89	57
Total Lower 48	3,003	0.8	90	85

Data Released October 23, 2003, for the Week Ending October 17, 2003

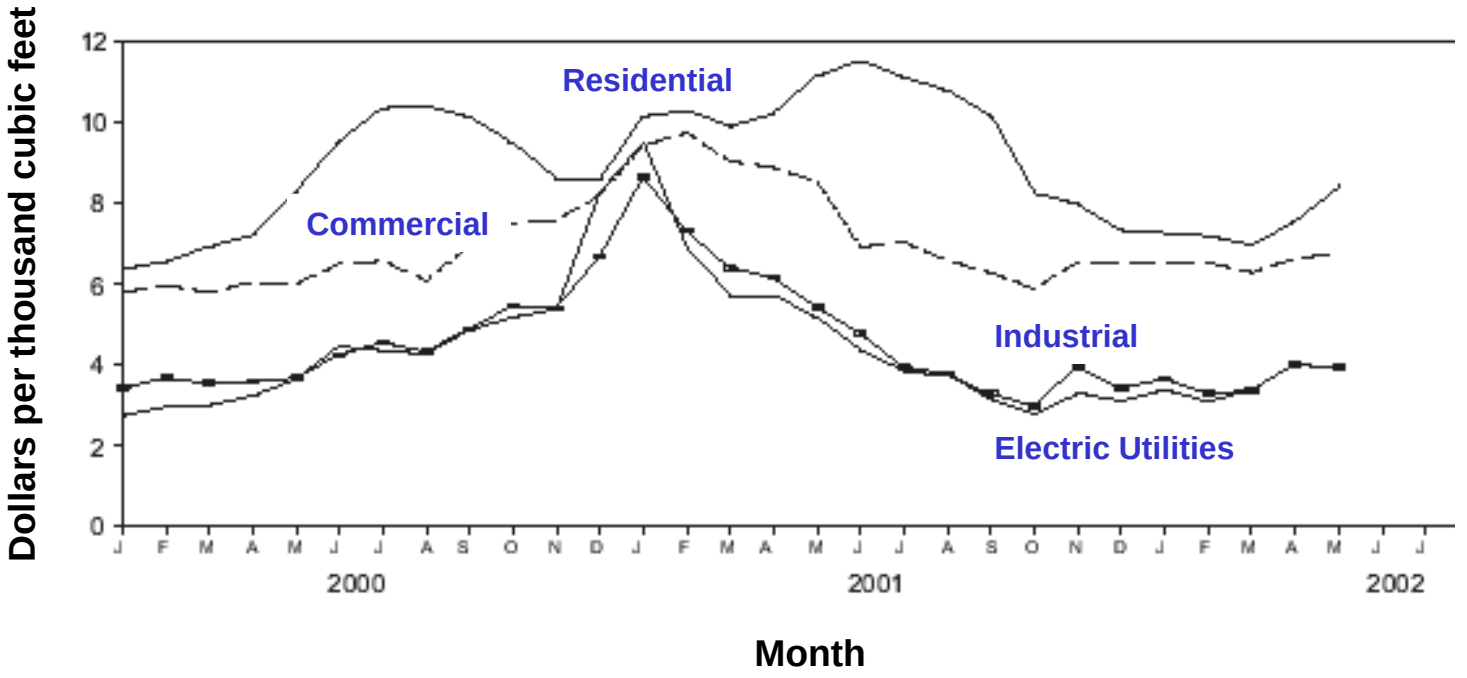
Working Gas in Underground Storage

Compared with 5-Year Range



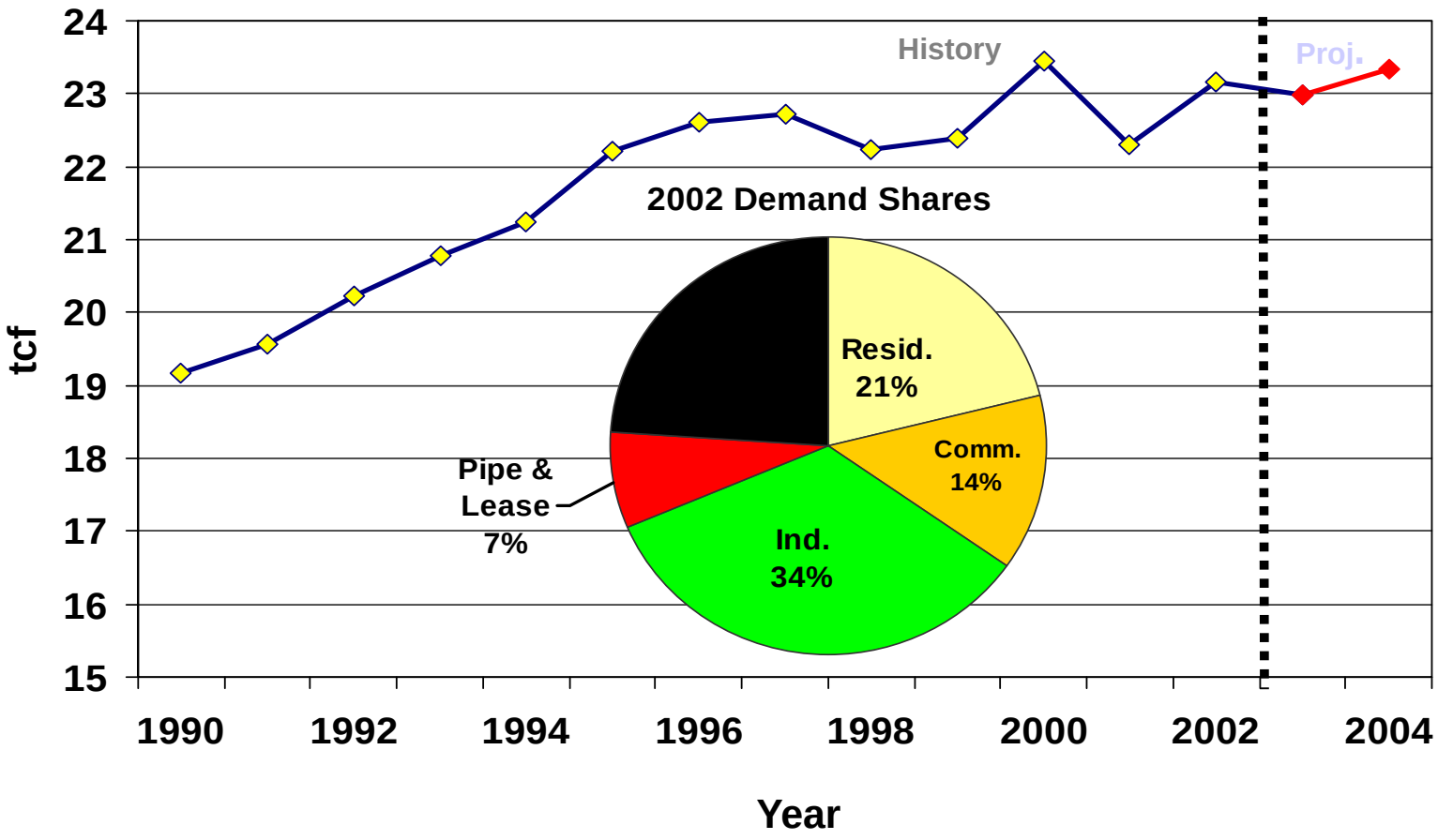
Natural Gas Prices

In thousand cubic feet delivered to consumers monthly



Source: Monthly Energy Review, DOE/EIA Figure 9.4 Web site URL: http://www.eia.doe.gov/emeu/mer/pdf/pages/sec9_16.pdf

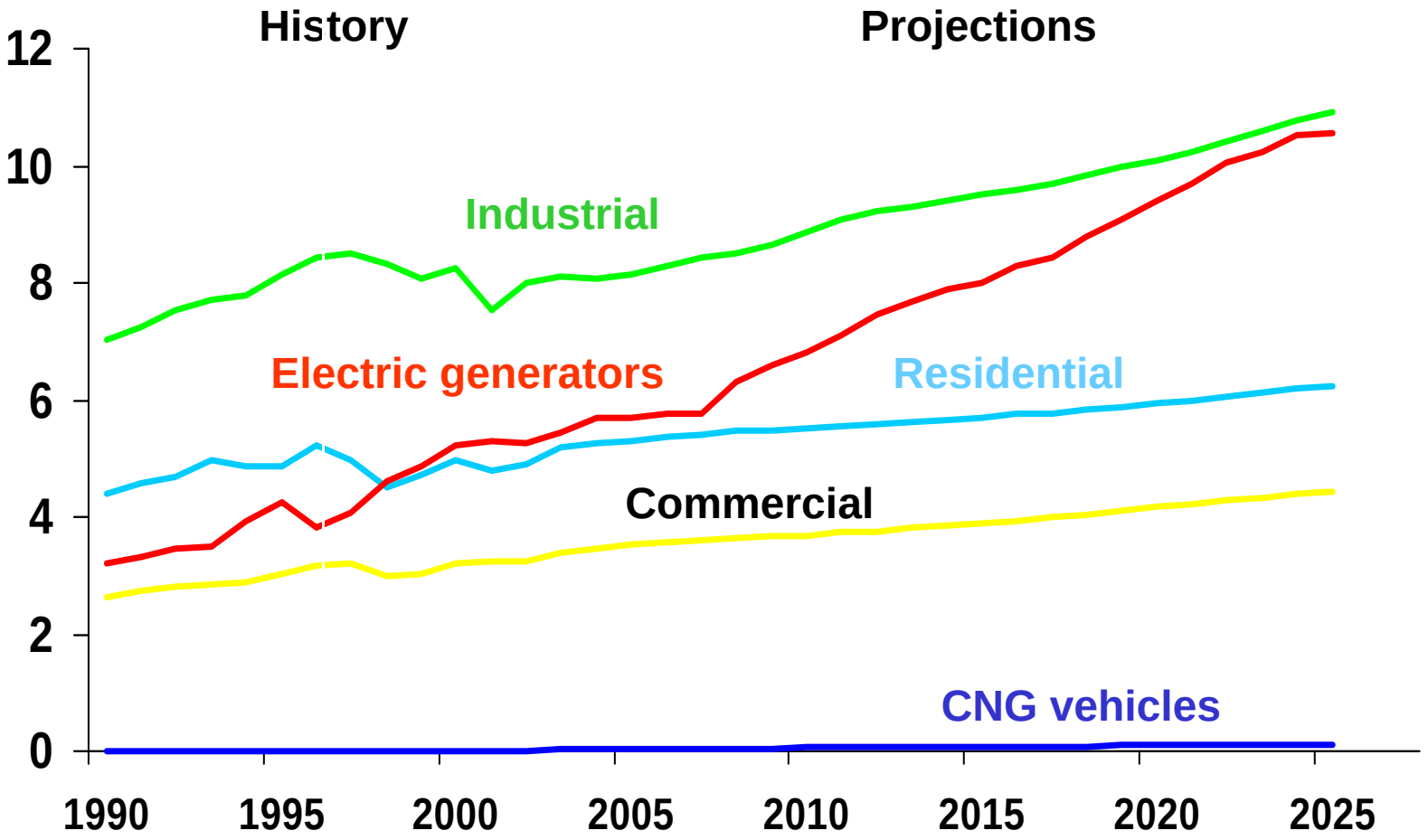
Demand Growth Expected in 2004 But Level Stays Below 2000 Peak



http://www.eia.doe.gov/pub/oil_gas/natural_gas/presentations/2003/iogcc/iogcc_files/frame.htm

U.S. Natural Gas Consumption by Sector, 1990-2025

(trillion cubic feet)



http://www.eia.doe.gov/pub/oil_gas/natural_gas/presentations/2003/iogcc/iogcc_files/frame.htm

PUCO

U.S. Supply and Demand

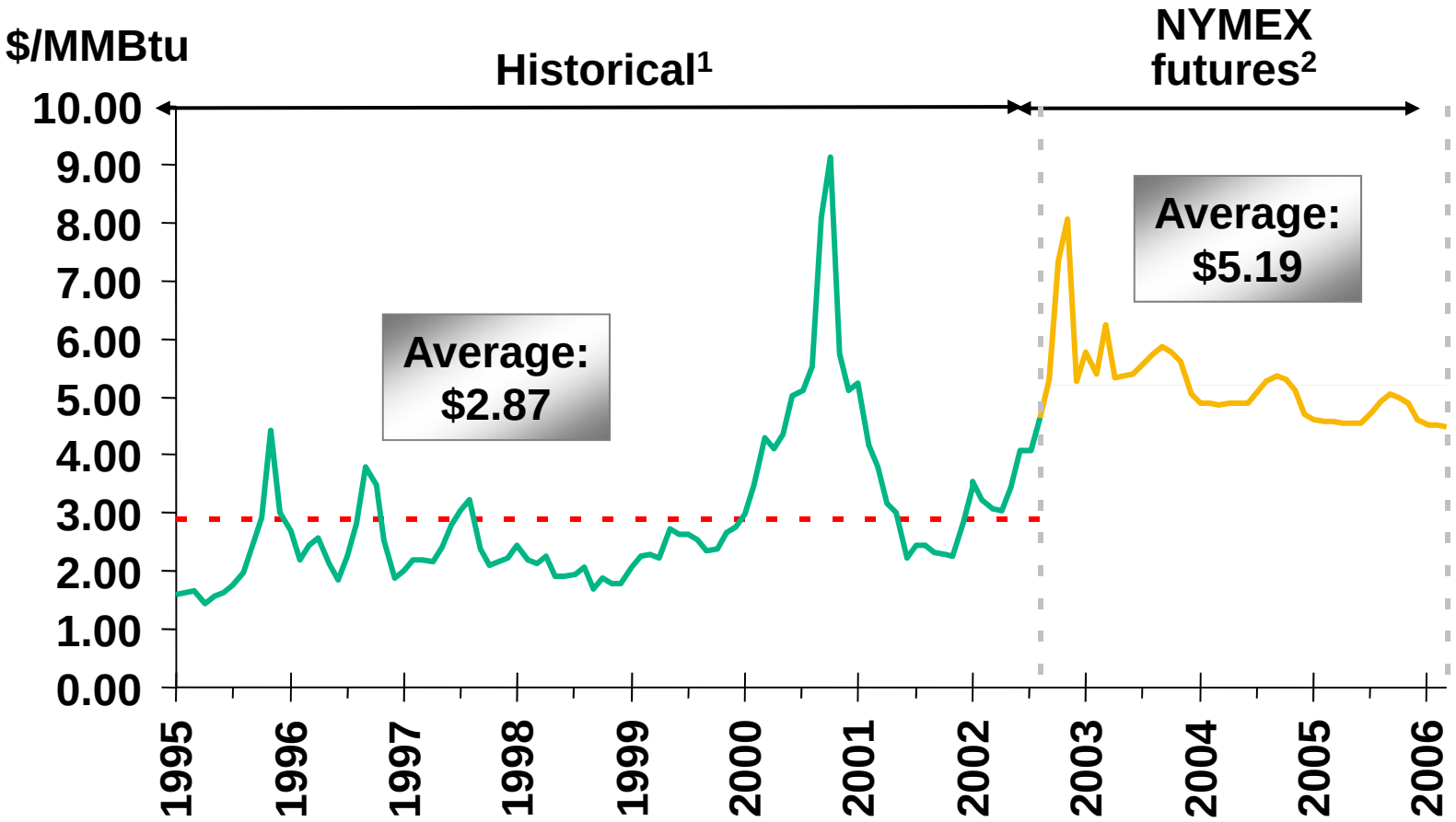
- The U.S. has been a net importer of natural gas since 1958.
- Imports have risen sharply since the end of the “gas bubble” in the late 1980s.
- Canada is the largest supplier of natural gas to the U.S. at about 14% of demand.
- Mexico now imports gas from several pipeline border locations from the U.S.

U.S. exports to Mexico averaged over 710 MMcf/d for 2002 and are expected to grow significantly in the future

Where do the Key Variables Point?

Variable	Winter 2000-2001	Winter 2001-2002	Winter 2002-2003	Winter 2003-2004
Weather	High	Low	Moderate	Colder
Economic Activity	High	Low	Moderate	Moderate
Oil Prices	High	Low	High	High
Storage	High	Low	Low	High
Drilling	High	Low	Moderate	Moderate
Jan. Henry Hub	$8.50	$2.30	$4.99	$5.40

Fundamental Shift Has Occurred in Long-term Gas Prices



1 Henry Hub spot prices 1995 – 2002
2 NYMEX monthly futures as of July 1, 2003

Price Comparison of Injected Gas

(Stored from April-October)

Stored gas is higher than normal

Month	Price per mcf
April 2003	$5.14
June 2003	$5.30
July 2003	$5.31
August 2003	$4.69
September 2003	$4.93
October 2003	$4.44

Residential Demand

- Consumers know very little about the efficiency of gas demanding appliances within the home and work place.
- Confusion over energy efficiency ratings and customer focus on “purchase price” without attention to cost of operation

Education and Awareness

- Gas providers , public utility and service commissions, social service, and other governmental agencies need to improve and increase conservation messages to consumers.
- Gas users can control their gas demand by resetting the water heater and furnace to cooler temperatures,

Financial Arrangements

- Energy providers should encourage budget payment plans so that customers will not feel the impacts of higher priced gas or increased consumption due to colder weather.
- LDCs should brief public utility and service commission staffs and commissioners on the value of hedging opportunities.

Financial Arrangements
(Hedging)

- Hedges are not free, but cost can be managed.
- Only a portion of the energy portfolio needs to be hedged.
- Various types of hedges such as costless collars protect the user from the risk of high gas prices.

Hedging as a tool

- Costless Collars are a good tool when there is a high chance of gas spikes and a low chance of prices bottoming out.
- The January Strip prices were $5.88
- The range for a costless collar was

  Floor $5.35 – cap $7.00/mcf

  Floor $5.55 – cap $6.50/mcf

Additional Hedging Tools

Based on $5.88 /mcf

- **$6.50 call was $.59/mcf**
- **$7.00 call was $.48/mcf**

Contact Information

PUCO Consumer Hotline

(800) 686-PUCO (7826)

PUCO Web site

www.PUCO.ohio.gov

Commissioner Mason

(614) 466-3914