

# Natural Gas Prices

*An Overview and a Look Ahead to the  
2009-2010 Heating Season*

## News Media & Public Briefing

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**Natural gas prices during  
the 2009-2010  
heating season will be  
much lower than a year ago**

- **Structure of the natural gas industry**
- **How natural gas rates are set**
- **The natural gas market**
- **Recent trends in gas prices**
- **What's ahead for 2009/2010**
- **What consumers can do**

# Structure of the natural gas industry

- Producers/processors
  - Wholesale prices unregulated
- Interstate pipeline companies
  - Federally regulated
- Local distribution companies (LDCs)
  - State regulation

# Natural gas rates

Three components

- Distribution system
- Pipeline delivery cost
- Wholesale price

# Distribution system component

- Reflects cost of delivering gas to consumer
  - Operations and maintenance costs
  - Customer service costs, inc. billing
  - Personnel, overhead, etc.
  - Return on investment
- Includes fixed monthly charge; volumetric delivery charge
- Determined by PSC through ratemaking
- Second-largest component - %age varies

# Pipeline delivery cost

- Cost of moving gas from well to local distribution system
- Smallest component - less than 10%
- Regulated by Federal Energy Regulatory Commission
- Passed on directly to consumers
- No profit for local distribution company

# Wholesale cost

- Deregulation began in 1970s to stimulate gas production during energy crisis – deregulation complete in 1993
- Fluctuates with supply and demand
- Biggest part of retail gas price - about three-fourths
- Direct pass-through to consumer via gas cost adjustment (GCA)

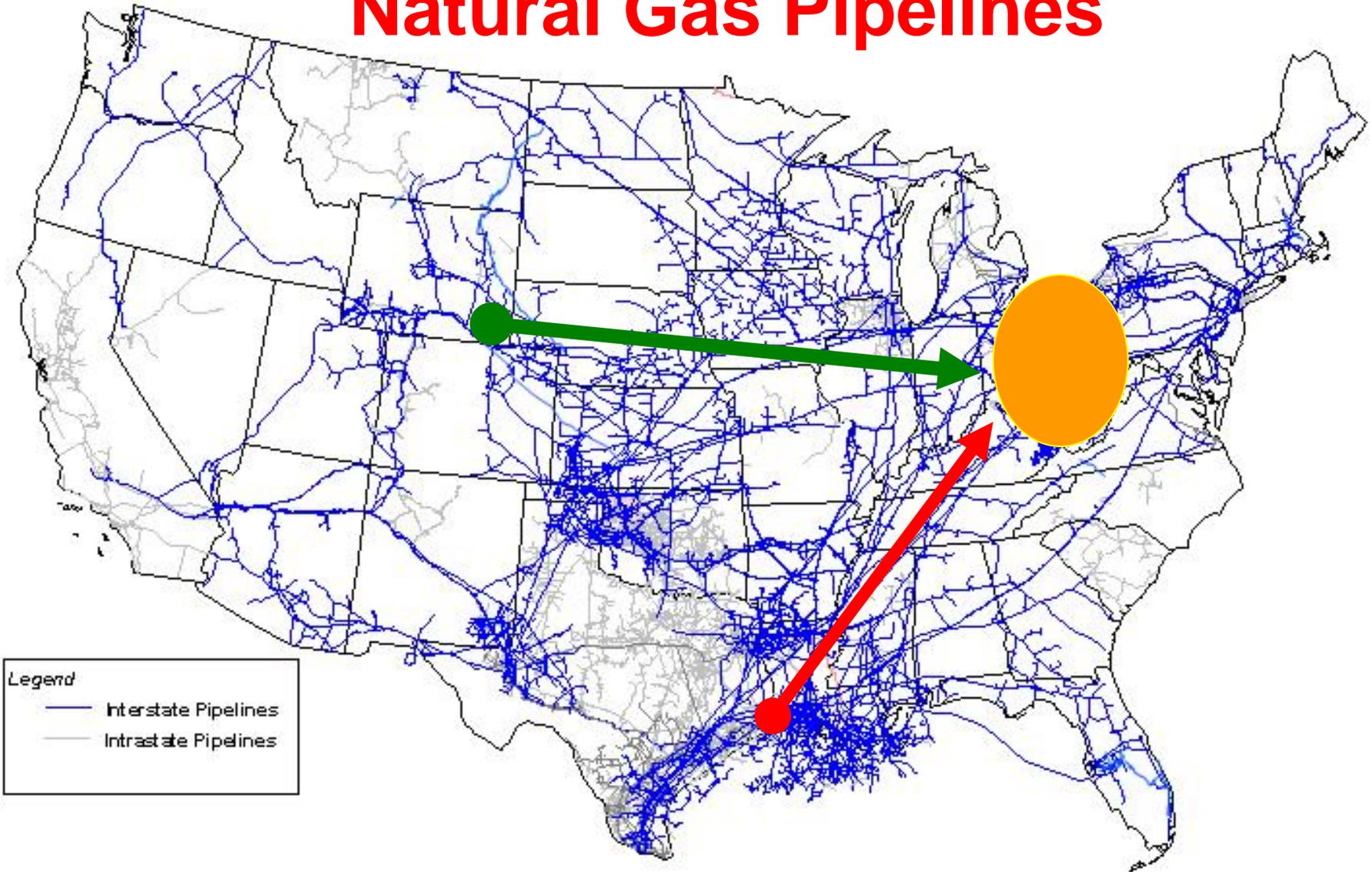
# Gas cost adjustment

- Allows LDCs to recover wholesale cost
- Does NOT include markup for LDCs - simple pass-through of wholesale cost to consumers
- Reviewed by PSC for accuracy
- Typically adjusted quarterly - prospective
- Includes rolling adjustment for over or under recovery of costs in previous periods

***The largest and most frequent changes in retail gas rates are due to gas cost adjustments, which are driven by conditions in the wholesale gas market.***



# Natural Gas Pipelines



**Legend**

- Interstate Pipelines
- Intrastate Pipelines

Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

# The Natural Gas Market

## Key Points

- National market - regional differences
- Traded as a commodity
- Prices are market-driven

# Pricing

## Spot market

- Short-term price
- At delivery point (Henry Hub)

## Futures market

- For set quantity at set price on set date
- Forward-looking
- NYMEX

# Supply factors

- Production
  - Major new reserves being developed
  - Lags behind demand
- LNG – moving from import to export
- Stored gas - typically about half of winter usage comes from storage

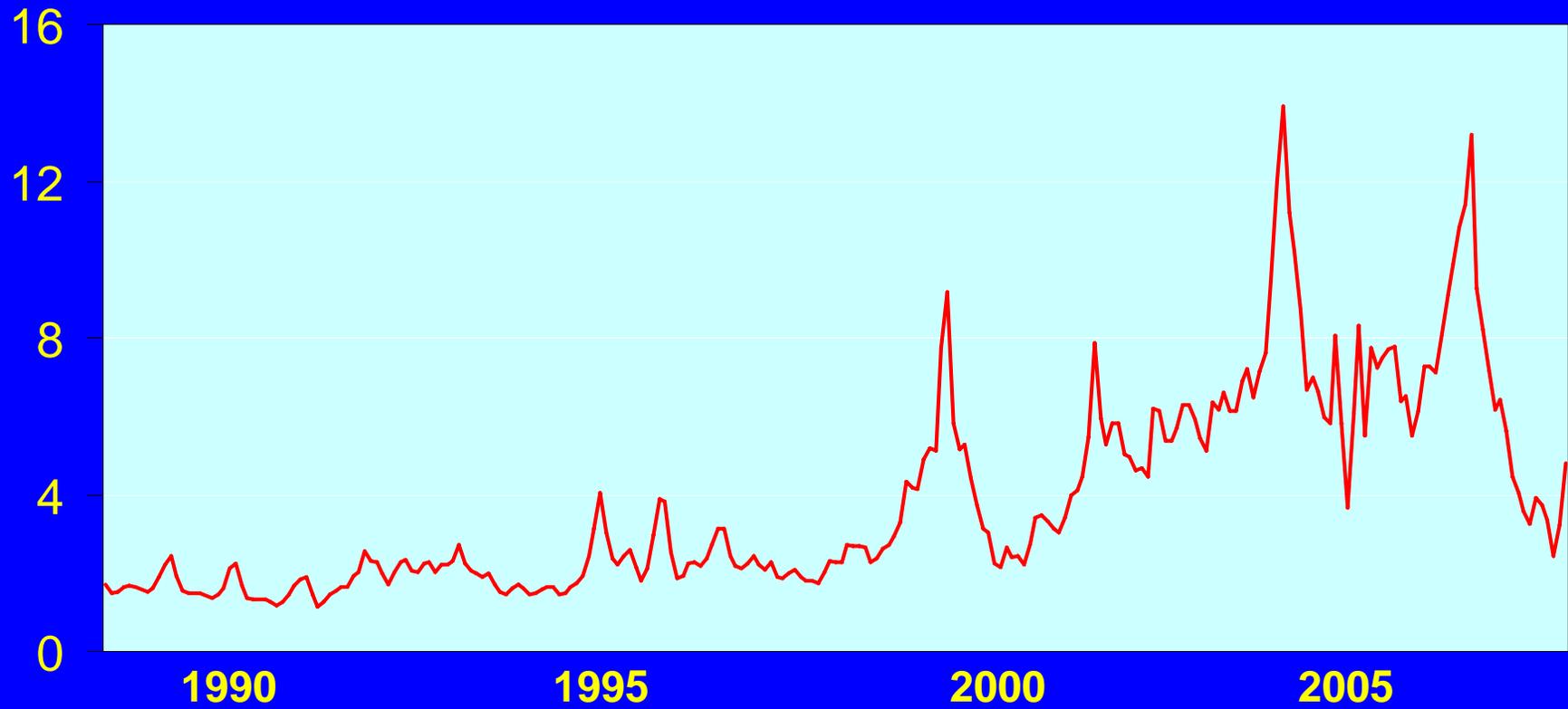
# Demand factors

- Weather
  - Principal home heating fuel
- Electric generation usage
  - Increasing - both peaking & baseload
- Industrial usage
  - Most sensitive to price (fertilizer, etc.)

# Market trends 2000-2007

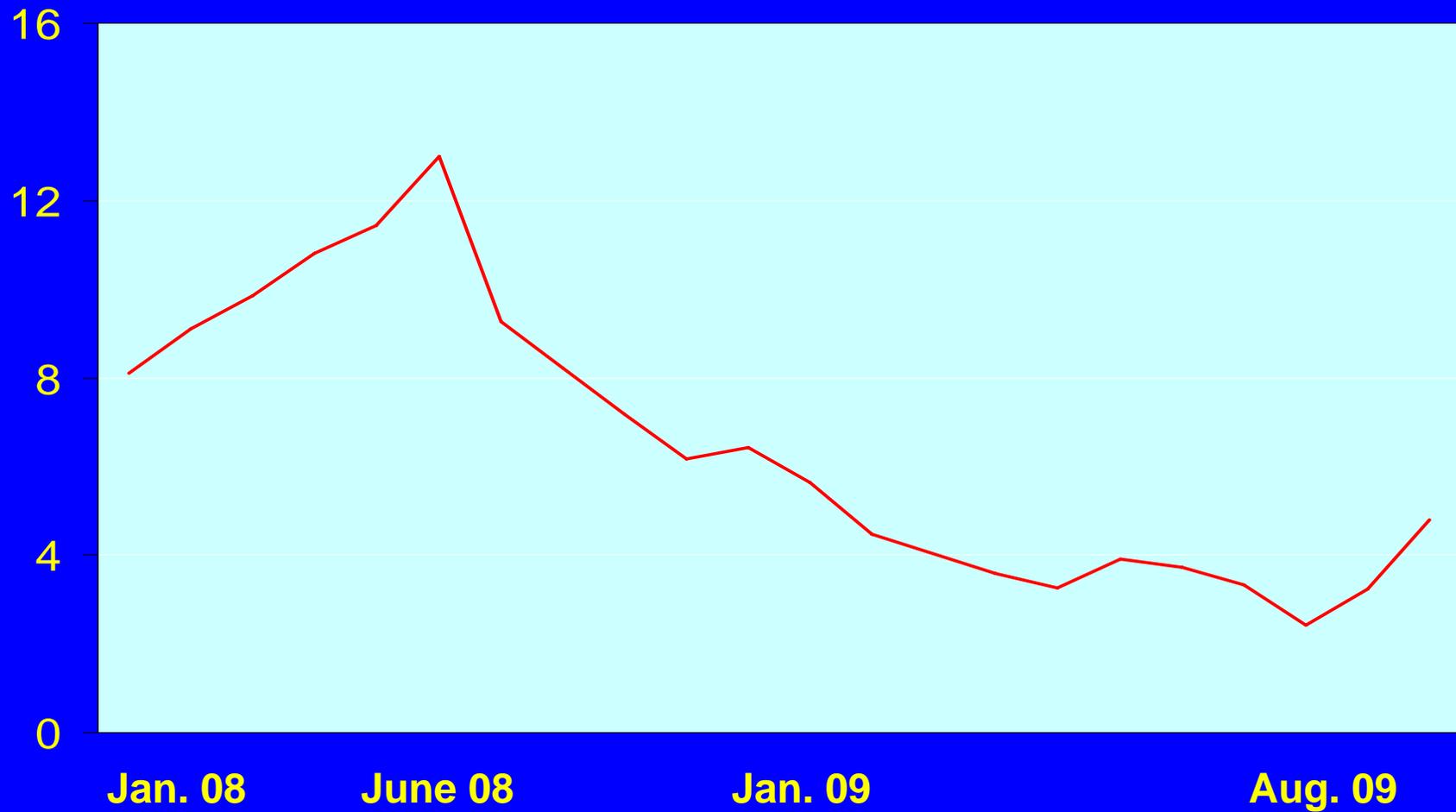
- Increasing demand and production
- Pipeline capacity constraints
- Increased price volatility
- More demand in summer due to peaking electric generation
- Higher summer prices

## Henry Hub Price - 1989 to present



Year

## Henry Hub Price - Jan. 2008 to present



Spot price decline – 6/08 (\$13) to 8/09 (\$2.42) – 81%

# What happened in 2008-2009

- **Speculative bubble in first half of 2008**
- **Unsustainably high prices**
- **Moderating demand due to economy**
- **High storage, low demand in summer 2009**
- **Price collapse in summer 2009**

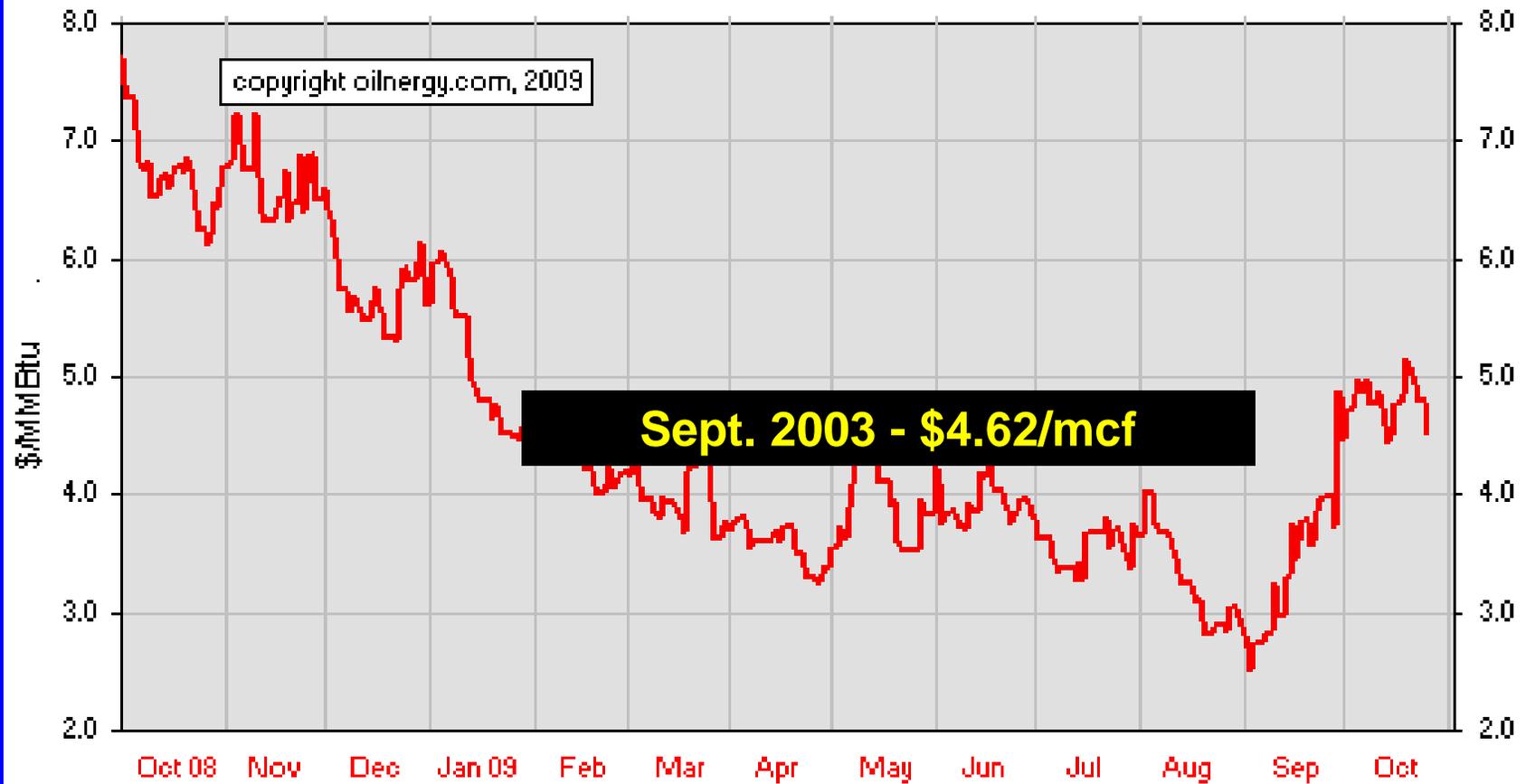
The image features a blue and white abstract background with a blue border. The text is centered and reads:

***Looking ahead  
to 2009-2010***

# Where we are

- Depressed demand
- Ample supply – storage full
- REX pipeline fully operational Nov. 2009
- Prices stabilizing

## NYMEX Henry-Hub Natural Gas - 12 previous months



44% of Kentucky households

**Adjusted natural gas costs are 52% lower than a year ago – total November bills (for 10 mcf/month) will be 39 percent below same quantity bill a year ago**

# Price forecast

- Latest Gas Cost Adjustments filed by all major Kentucky LDCs are 26% to 74% lower than last year at this time
- Total bills 18% to 60% lower for customer using 10,000 cubic feet/mo
- Storage is at capacity nationally
- Kentucky in line with national picture

# Current gas costs

## Gas Cost Adjustment - per 1000 cubic feet

<u>LDC</u>	<u>11/02</u>	<u>11/08</u>	<u>11/09</u>	<u>08-09 %</u>	<u>total%</u>
Atmos	\$4.83	\$11	\$6.09	-45%	+26%
Columbia	\$4.78	\$14.23	\$3.68	-74%	-23%
Delta	\$5.60	\$13.13	\$6.66	-49%	+19%
Duke	\$3.92	\$9.05	\$6.70	-26%	+71%
LG&E	\$5.36	\$11.09	\$4.91	-56%	-8%

(as of 11-1-09)

# Current gas costs

Total gas bill – “typical customer” – 10 mcf/mo

<u>LDC</u>	<u>Nov. 2008</u>	<u>Nov. 2009</u>	<u>% change</u>
Atmos	\$131.24	\$82.18	-37%
#Columbia**	\$170.28	\$67.90	-60%
Delta	\$188.38	\$123.73	-34%
Duke*	\$129.17	\$105.68	-18%
#LG&E	\$134.84	\$80.90	-40%

(as of 11-1-09)

# Base rate adjustment since 11/01/08

\* Gas cost adjusted monthly

\*\* Gas cost last adjusted for September; others for November

# Why do prices vary among companies?

- Availability of on-system storage
- Access to multiple pipelines
- Timing of adjustments
- Adjustment factors

**Prices may become more  
stable in medium term –  
Henry Hub futures at \$5  
to \$8 per mcf through  
April 2016**

## NYMEX Propane - Daily Price in 12 previous months



**10% of Kentucky households**

## NYMEX Heating Oil - Daily Price in 12 previous months



3% of Kentucky households

## Winter heating costs:

- Weather – will drive consumption
- Consumption will drive wholesale costs
- Ultimately, individual bills will be determined by individual consumption

***Reducing  
home heating  
costs***

# Conservation

- Turn down thermostat
  - Going from 72 degrees to 68 degrees can save 15% or more on your gas bill
  - Programmable thermostats can save even more



# Weatherization

Substantial savings are possible if you:

- Caulk around windows, doors
- Replace worn weather stripping
- Seal openings



# Weatherization

- Install storm windows
- Cover windows with plastic
- Add insulation



# Energy audits

- Identify problem areas
- Suggest corrective actions
- Offered by most major utilities
- Often free or nominal charge

# Budget billing

- Annual averaging of monthly bill
- Removes seasonal fluctuations
- Allows predictable budgeting
- Annual or rolling “true up”
- Does NOT cut costs

# Low-income Assistance

- Administered through Cabinet for Health & Family Services - local Community Action Agencies
- Weatherization assistance - eligibility based on income; many utilities provide matching funds

## **Low-Income Home Energy Assistance Program (LIHEAP)**

- 150,000 households each year
  - Two programs - Subsidy & Crisis
    - Subsidy - Nov.-Dec. - 90,000-110,000 households
    - Crisis - Jan.-March - 50,000-60,000 households
- 

**Low-income assistance also is provided by many local non-profit agencies. Utility companies also have low-income assistance programs (Winterhelp -LG&E; Atmos Cares)**

# Resources

- Dept. for Energy Development & Independence
  - Energy statistics
  - Energy efficiency and conservation programs
- Community Action Kentucky
  - Weatherization assistance
- Cabinet for Health & Family Services
  - LIHEAP information
- University of Kentucky & others
  - Energy research

# On the Web

## Energy efficiency/conservation

<http://energy.ky.gov/dre3/>

## Assistance programs

### - Weatherization assistance

<http://www.communityactionky.org/WhatWeDo/EnergyAssistance/Weatherization/tabid/356/Default.aspx>

### - LIHEAP information

<http://chfs.ky.gov/dcbs/dfs/LIHEAP.htm>

## General information, consumer complaints

<http://psc.ky.gov>

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***Questions?***

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