



State of the Markets Report

Federal Energy Regulatory Commission
Office of Market Oversight and Investigations

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Good morning Mr. Chairman, Commissioners.

It's a great pleasure to present you today with the 2004 State of the Markets Report. The State of the Markets Report is our summary of important activity in energy markets in the preceding year.

State of the Markets Report examines energy market activity in 2004

- Organized like an almanac with focus on regional electric and gas markets
- Essays on issues of interest
- Overviews of U.S. electric and gas markets
- Profiles of other factors

The new report has been organized like an almanac, permitting us to focus on the highly regional nature of electric and natural gas markets, and to explore other energy-related markets and factors. In addition to this regional approach, the Report includes national summaries of electric and gas markets, four essays on a variety of topics and short discussions of seven related markets or factors affecting energy. In the essay on market information, we point out that there are really three types of customers for energy market information. He calls these three types “traders,” “price takers” and “regulators.”

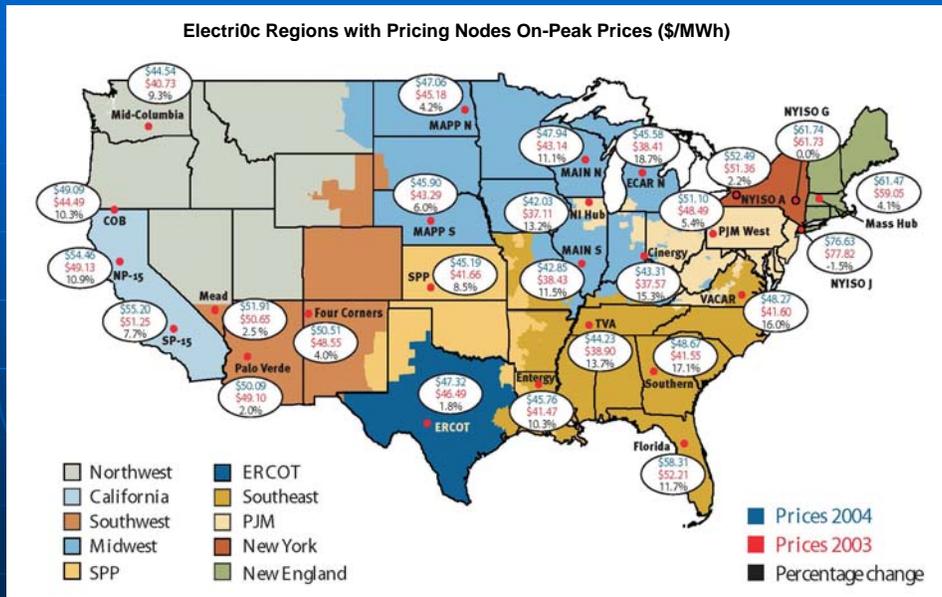
Traders operate inside the process and consequently have fairly good information about the formation of prices – by forming them. Price takers are those sellers and buyers of energy who don’t have the resources or inclination to actively trade. As regulators, the Commission shares a position with price takers of being effectively outside the market process – observers if you will. These distinctions are largely a matter of reasonable industry structure and activity. Still, the information needs of price takers and regulators matter a great deal. We have designed the State of the Markets Report this year as a publicly available resource for the many price takers and the other regulators interested in energy markets who do not have the resources to research the full array of markets that matter to them.

I won’t spend much time today presenting the Report to you – you saw most of it during Staff’s regular reporting on energy market activity over the past year and a half. But I would like to quickly explore a few high-level points.

Connections among U.S. energy and related markets tightened in 2004.

The most compelling theme to the authors of the Report this year has been the fundamental interconnectedness among energy markets – in and outside the U.S. This interconnectedness increased in 2004 in a number of interesting ways.

Average electric prices increased in almost all regions



Source: Derived from Platts *Megawatt* Daily and Dow Jones data.

First, at the highest level, electric prices increased in almost all regions in 2004. Increases reached almost 20% in some areas. Why was this?

Electric prices driven by spot input prices

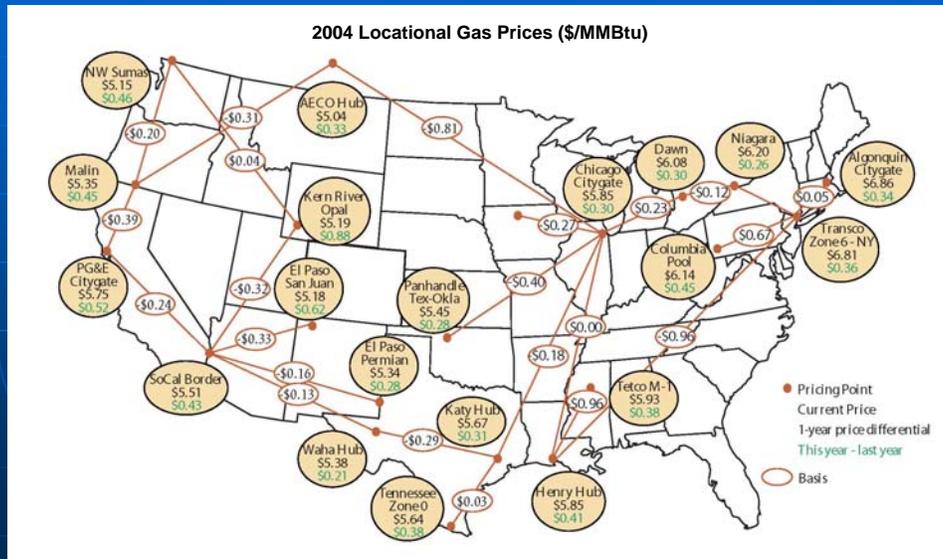
- Where gas tends to be on the margin, electric prices increased by 5–12%.
- Where eastern coal tends to be on the margin, on-peak prices rose 11–19% with off-peak prices as much as 33% higher.
- Where western coal tends to be on the margin, on-peak electric prices increased less than 6%.

Selected Regions	On-peak Spot Prices		Off-peak Spot Prices	
	Typical Marginal Fuel	2004 Price Change (%)	Typical Marginal Fuel	2004 Price Change (%)
Upstate NY	Gas	0%	Gas	2%
Cinergy	Eastern Coal	15%	Eastern Coal	25%
Four Corners	Western Coal	4%	Western Coal	10%
PJM West	Gas	5%	Eastern Coal	25%

Source: Graph derived from Platts and Bloomberg data.

Most significantly, prices increased due to fuel and other input price increases. Effects depended on what type of generation tended to determine market prices. For example, in upstate New York where natural gas fired generation tended to set prices, the small increase in annual average gas prices resulted in small increases to electric prices. In Cinergy, where Eastern Coal predominated, on-peak and, especially, off-peak electric prices rose more significantly. That's because eastern spot prices for coal went up by 68 percent in 2004 and emissions allowance prices increased even more. Western coal prices rose less than 10 percent and resulted in lower electric increases where it was used.

Natural gas prices increased in all regions

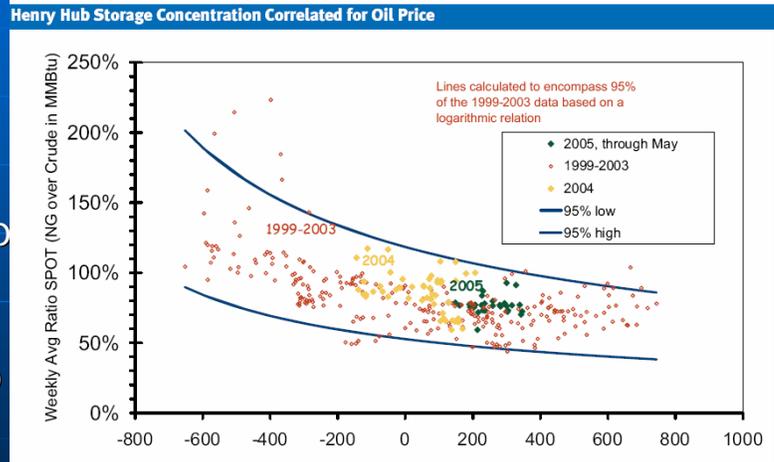


Source: Derived from Platts and GASdat data.

Reviewing national natural gas prices, we see small increases – about 7 percent – much smaller than in 2003. Regionally, the exception is the Rocky Mountains where new capacity installed in 2003 brought up netback prices to producers – though not at the expense of customers outside the Rockies.

2004 gas prices driven by oil prices

- Oil prices up 33% in 2004.
- Gas prices maintained a fairly constant relationship to oil prices.
- Storage levels remained healthy so no scarcity effects.

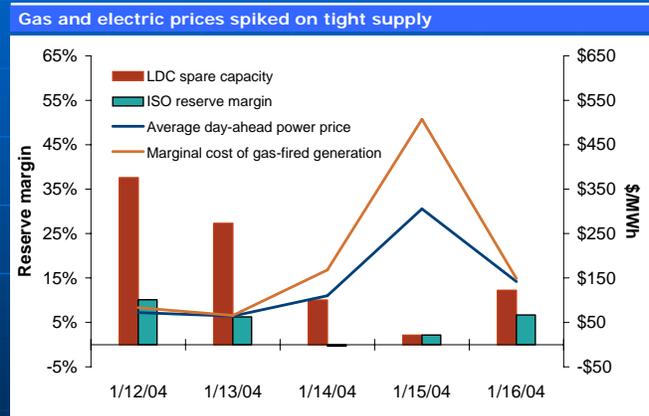


Source: Graph derived from Platts and EIA data.

Natural gas prices in 2004 reflected the increasing price of oil. This graph needs some explanation – it plots the price of gas divided by the price of oil in relation to storage inventories. What it means is that in 2004, we didn't see gas prices surge beyond oil prices (like we did in 2003) because of low storage inventories. Instead, gas prices remained pretty stable compared to oil. Oil prices, however, increased from an average of \$30 per barrel in 2003 to a little over \$40 in 2004. That change appeared to drive gas prices.

Energy markets under simultaneous stress: New England and record cold

- January 15-16, 2004: coldest successive 2-day period in Boston since 1943.
- Simultaneous stresses on both electric and natural gas systems, largely met.
- Small amounts of gas moved in spot market at record prices to serve heating load.
- High prices driven by scarcity; no indication of market manipulation or withholding.

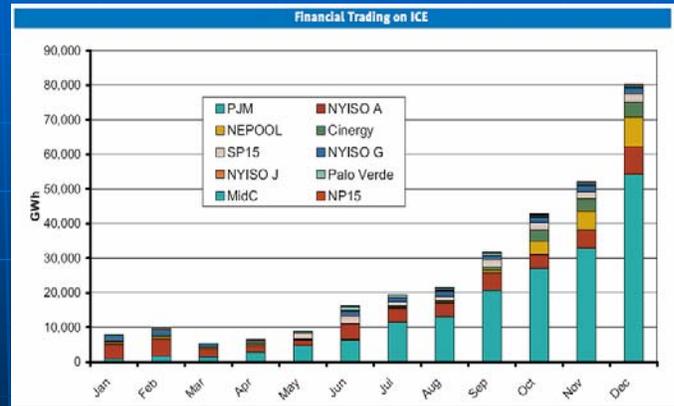


Source: Derived from ISO-NE morning reports Jan 14-16, 2004 and LDC data.

Regionally, gas and electric markets interacted actively. New England in early January 2004 experienced simultaneous stresses on both gas and electricity due to extreme cold. A combination of market forces and electric dispatch decisions averted disaster by reallocating gas across the two markets. This case has interested us because of what it tells us about market behavior under stress. The occurrence is detailed in one of the four essays in the Report

Financial trading and investment activity grew in energy markets in 2004

- “Nontraditional” buyers acquired equity in almost 30 GW (about 5%) of U.S. generation in 2004.
- Electric financial trading rose by a factor of 10 on ICE.
- In gas, spreading open interest more than doubled.
- Credit clearing grew.



Source: Graph derived ICE on-peak financial swap volumes. ICE products evaluated include monthly, dual monthly, quarterly, and calendar year contracts traded for 2004.

There has been a lot of talk over the past year about the more aggressive entrance of financial players into energy markets – banks and hedge funds. We’ve documented some of this activity for electricity and natural gas. In this graph, we look at financial electric products traded on the InterContinental Exchange or ICE. ICE is not the only place this trading is done – much of it is through voice brokers – but it is one of the few places where we can count how much activity is taking place. The surge in activity is clear. Nonetheless, electric financial trading still appears less active than in natural gas or, certainly, oil. In the Report itself, we also look at financial natural gas trading and see significant increases – though from its already higher level.

Markets provided mixed incentives for investment

- Electric generation markets are overbuilt as a whole.
- Electric prices in constrained regions tended not to be high enough to justify investment.
- Electric transmission investment increased for the fourth year in a row, up 69% since 2001 (though added only 931 circuit miles of high-voltage lines).

Another essay identifies trends in electric investment. In general in the U.S., electric generation markets are overbuilt. Given the highly regional nature of electricity, though, certain areas are under-served. In those areas market prices did not clearly signal investment – reasons for which will continue to be a subject of research for us in 2005. Though electric transmission investment increased, it remained quite low on an absolute and relative basis.

Based on 2004 experience, what electric issues appear most important?

- How will electric markets respond to extreme stresses, weather or other incidents?
- How will RTO markets adapt to regions that have a history of many separate control areas, such as MISO?
- Can markets signal the need to build capacity far enough in advance to prevent shortages?
- Can electric market institutions foster the development of more price responsive demand?
- How will the industry integrate market institutions and reliability requirements?

To wrap up, we wanted to highlight a variety of energy market questions we are looking at coming out of our review of 2004. The first electric question gets at market performance under stress. This is already an imminent issue. A few weeks ago we spoke about our concerns in certain areas for the coming summer. The second question has been a common concern about how well RTO markets can adapt to conditions in dispersed regions like the Midwest. So far, indications are positive. The third is important in the longer run – can market signals work fast enough to give incentives for investment in a timely way? The fourth is a related question about whether active demand response by customers to price would improve the functioning of electricity markets. Finally, challenge to integrate reliability and market concerns will remain important over the next few years.

Based on 2004 experience, what gas issues appear most important?

- How will gas markets respond to extreme stresses, weather or other incidents?
- Will innovations help improve natural gas supplies?
- How will global markets for natural gas develop?

Turning to natural gas, a key question is how will gas markets respond to occasional stress from, for example, weather or supply disruption. The second question concerns the ability of higher prices to increase the pace of innovation in the industry – one of the most important things markets can do. Finally, the U.S. natural gas market is clearly becoming increasingly affected by global market considerations. How this relationship will develop may play a major role in how we use natural gas in the future.

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The 250-page report will be available electronically today on the Commission website in the "What's New at FERC" section.

We hope that the 2004 State of the Markets Report will be useful to the many out there who, like us, are on the outside of energy markets looking in. We look forward to getting feedback from them about whether we've met our goal.

Thank you, and we'd be happy to answer any questions.