

# POWER

## TRADING REBUILDS

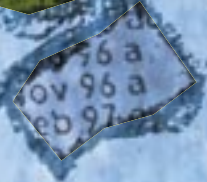
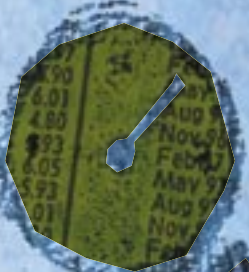
*By Richard Korman*

*illustration by Graham Fleming*

### Making The Case for Shifting Risk

*Throwing his hands* down in disgust, Eric Bolling turned away from the hurly-burly of the natural gas pit on the floor of the New York Mercantile Exchange (NYMEX) in lower Manhattan. A few minutes later, the independent energy trader sat down in the spectator's gallery above the trading floor, watching the clusters of arm-waving, finger fluttering, card-flinging traders.

*A former professional* baseball player, Bolling took up commodity trading 18 years ago — thinking it was the next best thing to competitive sports. The first day trading in the new natural gas pit, he sold 100 “spreads,” figuring that if everything went wrong, it was a \$10,000 or \$15,000 risk. But if everything went right, he might make that. Although he lost \$120,000 the first day, he understood what that kind of volatility could reward him. “At that moment it was horrible, it was a lot of money — most of what I had,” he says. “But I realized if the market could move that much, there was a really good chance I could be on the right side of some of these trades. So I stayed.”



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Aug 31	111	-0.0	3	18	33.19	49.26	2.08	1	12

*Natural gas trading* stayed, too. Since NYMEX launched its first natural gas futures contract with the Henry Hub delivery point in April 1990, the daily trade has grown to more than 100,000. Bolling spends most of his time trading natural gas — where you can trust the numbers, and everybody plays by the same rules.

You can't say the same thing about electricity — considered by many as the second most volatile commodity after copper. That's one reason it's not traded on the floor of a major exchange. Twice during the 1990s NYMEX tried floor trading of electricity futures contracts, but it fizzled. In Illinois, the Chicago Board of Trade (CBOT) listed electricity futures contracts briefly, but they were "very thinly traded and delisted," says Patricia Mosley, new product and business development manager for CBOT. "That was in 1998, so it wasn't a reaction to Enron or California," she says.

Characterized by long-term bilateral trades with unpublished prices and a patchwork of regional markets, electricity doesn't offer professional commodity traders access to enough information and the liquidity that promises quick exits if the market goes against them. One broker joked that such an illiquid market threatened to trap traders in "the roach motel," where they check in to an investment position but can't check out by selling.

He compares the splintered nature of electricity markets to the maddening regional regulatory differences covering unleaded gasoline. As a result, electricity "doesn't need an execution forum on the exchange floor the way crude oil and natural gas does," he says.

Much has been said about the return of electricity trading as hedge funds and brokers renewed interest in power and fit out new trading desks. But the truth is the physical trading around assets never stopped, and financial trading didn't die completely. Then last year the volume of over-the-counter (OTC) gas and electricity futures contracts traded and cleared through two major exchanges rose sharply, according to *Futures Industry magazine*. Clearings using NYMEX's electronic system jumped from 528,604 in January 2004 to 2.24 million in November — those cleared through a system operated by Atlanta's Intercontinental Exchange rose from 662,700 to 2.06 million in the same months. Nine out of 10 cleared energy futures contracts involve natural gas. Natural gas overall trades at 10 to 12 times consumption; electricity may trade at only one-half to two times consumption. "The futures market in electricity is quite small," says Steve Harvey, the Federal Energy Regulatory Commission's deputy director of market oversight and assessment.

What could change that? Continued price volatility appeals to financial traders, but they also need transparent markets with lots of price information. In conversations with traders, independent system operators and government officials, all agree that should be the top priority.

But a lot of painful steps will be needed to reach such a goal. One is better reporting of location prices and creation by publishers of more reliable price indexes. Other steps include greater use or regulations requiring use by OTC traders of clearing services, finding financial products that respond to demand-side needs, and developing a better means of accounting for grid constraints and congestion.

Some believe FERC's controversial and slow-moving push for standard market design should be carried out to its full extent. "That would help a lot," says one trader who preferred to remain anonymous.

Finally, there is the need to win over regulators and the public. Enron and California poisoned the well by emphasizing how easily electricity financial trading information could be falsified, such as the faked congestion used to increase fees by Enron. The scandal furthered the perception that financial trading amounted to running up prices to create fees for traders and brokers. Some wondered if market efficiency necessarily guarantees a reliable flow of electricity to the public.

The continuing image repair carried out by power industry associations, and the message that electricity and gas trading helps the public by giving price risk to those who want it, needs to go on. So does the overhaul of electricity markets.

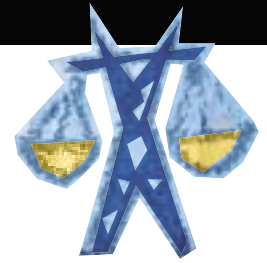
When traders get too little information, it prevents them from knowing their basis risk and making informed gambles, says Doug R. Hale, senior economist at the Energy Information Administration (EIA). Traders need to know where congestion points occur and price spreads matter, he says, and buyers and sellers need access to the same spot markets. Without it, they have a hard time sizing up their risks and hedging with derivatives.

"It's better than it used to be, but if we're going to get to the same point as natural gas, we've got to get to where we're trading financial derivatives, such as swaps, off of it," says one electricity trader.

Better quality price reporting is also needed, especially in published price indexes. While FERC's Harvey says many improvements have been made, others believe there is much more work to be done.

After the power market meltdown of 2001, FERC sought guidelines on how to report and receive prices

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from one of the industry groups that had been formed to establish good business practices. The Committee of Chief Risk Officers (CCRO), an association of 31 energy-related companies, recommended standards for providing publishers with price data, methods for constructing and verifying indexes and means to prevent cheating. More recently, the committee has been trying to create an “Energy Data Hub,” an independently operated repository for transaction data coming from all market participants. The hub would be “free from commercial conflicts of interest,” easily accessed, and more complete and detailed, says Robert Anderson, CCRO’s executive director.

Michael Prokop, senior vice president of broker Amerex Group, says reliable indexes are needed to settle derivatives, but that so far the amount of data being contributed to price reporters working for publishers still needs improvement.

Getting hourly or daily data on physical trades has improved liquidity, says Prokop. He likes the Pennsylvania-New Jersey-Maryland Interconnection’s (PJM) daily index of trade prices from inside and on the edge of the system. “That’s where folks are going now, and it’s very fluid,” he adds.

Clear, consistent information about transmission and congestion pricing would also remove a hindrance to both wholesale markets and electricity trades. Although FERC requires utilities and operators of transmission facilities to post data, the information on redispatch costs, congestion costs, or congestion revenues outside the independent system operators (ISO) is jumbled or inconsistent, says a recent EIA study. No official data shows the actual seam costs of moving power across control or ownership boundaries. The administrative difficulties and costs of coordinating power flows across system boundaries can be serious obstacles to wholesale trade, the report says.

Nevertheless, there are some bright spots. Wholesale electricity sale prices are publicly reported for public real-time markets by northeastern ISOs and California, says the EIA study. Northeastern ISOs also have day-ahead markets with publicly reported prices. And PJM reports relevant price and power flow data for its trade with the New York ISO.

For example, PJM is considering creating what Jeff Bladen, manager of retail markets, calls a forward energy reserve, a call option configured in 1-megawatt increments and five-hour durations exercised with day-ahead notification. In his proposal for the option, Bladen notes that the existing OTC option market for demand response has been mostly in large increments or 50-megawatt full-month duration terms.

“In today’s markets a fairly robust forward price curve, as far out as three to five years, exists for firm flat electricity blocks,” he says.

Traded OTC around PJM trading hubs, the blocks work well “to commoditize the output capability of large central-station generating plants,” Bladen writes.

But suppose a concrete plant operator wants to shut down during the most expensive hours of July. Instead of watching the market, the operator would pay a premium for an option that is callable the day before it is used. The option would allow the plant operator to decide the day before to shut down for the afternoon and sell the electricity at the agreed strike price.

Under Bladen’s proposal, PJM would hold auctions on an electronic platform. “We see this as one piece of the puzzle,” he says.

Others stress FERC’s plan for standard market design, hoping the transparency it would bring would promote financial trading. Under the plan, all utilities would give up control of transmission systems to centralized regional transmission organizations which would have to operate wholesale day-ahead, and real-time markets.

FERC’s plan also addresses locational marginal pricing by requiring it to align with the true value of generating and transmission assets. When a transmission system becomes congested, or fully loaded, prices would be based on the highest cost generator in a utility’s territory. Congestion revenue rights would be modeled on PJM’s and the New York ISO’s contracts.


Bigger issues cloud the picture. Standard market design threatens the comfortable world of retail electric and gas utilities that still enjoy their protections as regulated mini-monopolies. What, after all, does a monopoly stand to gain from a free-flowing, semi-national electricity super-highway?

That’s exactly what should be the goal, says one energy trading executive. “We need to drastically improve infrastructure and market structure if we expect to see an explosion or expansion of trading,” says Chris Edmonds, senior vice president of ICAP Energy, a broker based in London. “It’s better than it used to be, with pockets of success by independent system operators and regional markets such as PJM and those in New York, New England and Texas. We’re starting to see trading gravitate to more defined market rules.”

Everybody’s making progress, especially in price reporting and clearing. “It has helped tremendously,” Prokop says.

On the other hand, notes Edmonds, once you get outside these developing marketplaces, “The pockets of success haven’t swept the country.”

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