

37TH ANNUAL NATIONAL CONFERENCE OF
REGULATORY ATTORNEYS
COLUMBUS, OHIO
Session XV
JUNE 18, 2014

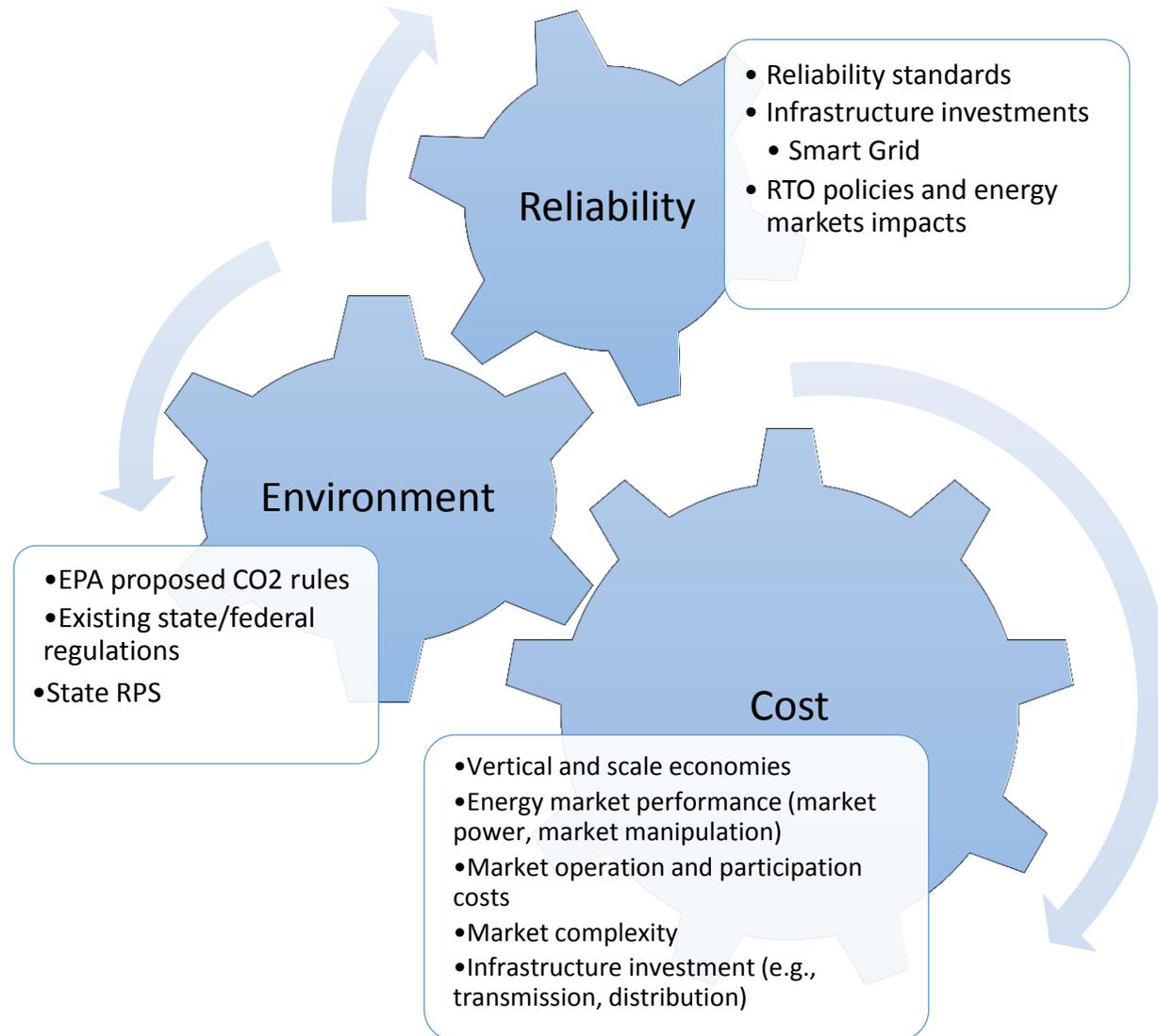
Kenneth Rose
Independent Consultant and
Senior Fellow, Institute of Public Utilities
at Michigan State University

Some Fun “Facts” About Columbus

- The city of Columbus was named after Christopher Columbus, who “discovered” Ohio in 1494 while still looking for a faster way to India
- Sadly, Columbus died before being able to visit the city that bares his name
- Columbus is in Franklin County, named after Franklin Pierce, one of several presidents most people cannot remember which century they lived in
- Each year, THE Ohio State University commemorates Columbus Day the day after Thanksgiving
- Famous foods from Columbus include Jeni's Splendid Ice Creams and Schmidt’s “Bahama Mama” – this is due to the balmy weather in Columbus
- The official local and state religion is Buckeye Football

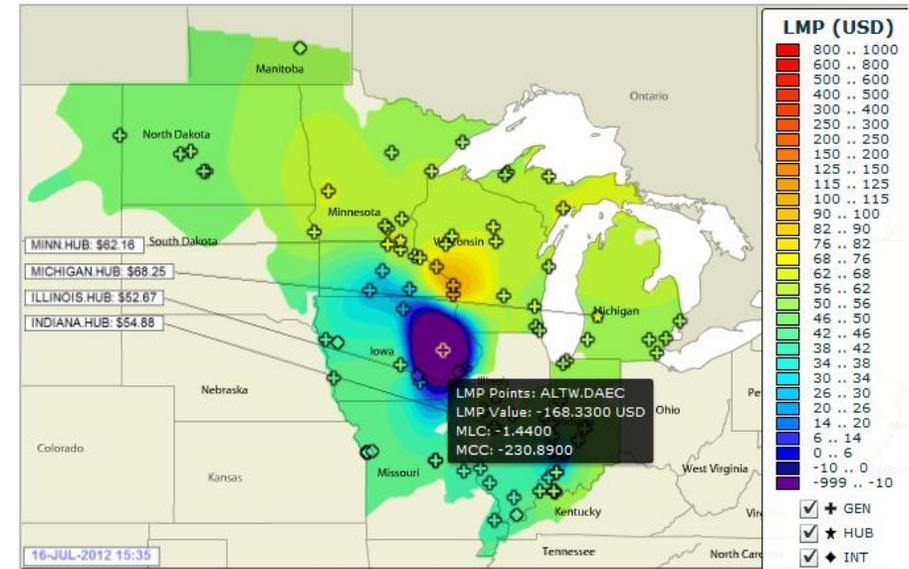
Conference Themes on Energy Topics

Themes all touch on **The Electric Supply Industry Problem**: To supply electricity in a safe and reliable manner, that minimizes the damage to the environment, and provides electric service at an affordable price to customers



Threats to the Grid

- Micro grid—where retail customers can either displace power from the grid or go off-grid completely
 - what's not new: CHP (cogeneration)
 - what's newer: small scale renewable resources
- Large scale renewable resources (see map above for MISO example from wind generation) are having a financial impact on other generators
 - this has been impacting prices (by lowering them) and perhaps future reliability (if plants that are no longer economic shut down)
- Relatively low natural gas prices have lowered wholesale energy prices
- Has led to requests from suppliers for what might be called extra-market compensation
 - either from wholesale, through RTOs, or from retail customers



Interesting turn of events since the peak prices of 2008

- When wholesale prices were high, we were told “that’s how markets work” —so get used to it
- Now, when wholesale energy prices are lower, we’re told “hey, I’m missing some money here” and prices are “too low” (except during the “polar vortex”!)
- Mechanisms are created to provide revenue for generation owners—such as capacity “markets” or for “system support resources” (i.e., units designated to meet RTO reliability requirements) compensation, or petitions are made to use cost-basis, not market-basis for compensation
- We’ll likely see more of this as long as current market conditions persist

Why should attorneys care about this?

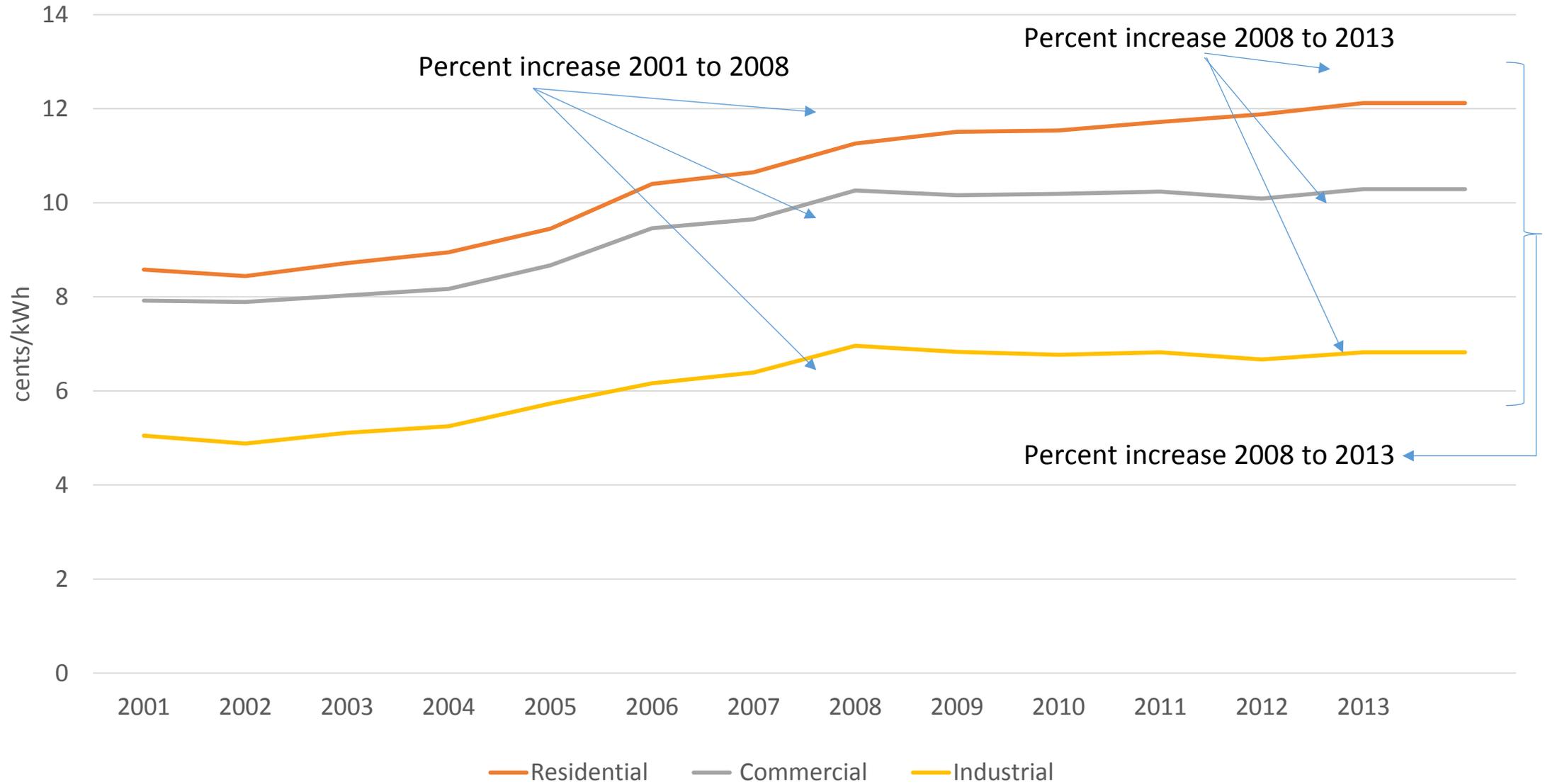
- Relates to the reliability and cost issues mentioned during this conference and may other places
- Some cases before FERC and state commissions, examples:
 - complaint of duke energy corporation against PJM before FERC (Docket No. EL14-45-000)
 - Duke is seeking recovery of costs it incurred to purchase natural gas during two days of last winter's extreme cold—Duke claims \$9.8 million in unrecovered costs – that it incurred, it argues, for reliability purposes
 - FirstEnergy Solutions Corporation (Docket No. EL14-36-000) FERC petition
 - capacity market sellers must submit data and documentation establishing a Market Seller Offer Cap (“MSOC”) for the RPM (capacity) auction – MSOC is the Avoidable Cost Rate of the resource minus the net Projected PJM Market Revenues
 - the disagreement is on the calculation of the net projected Market Revenues
 - FE is petitioning FERC to use cost-based offers (and not the lower of price-based and cost-based offers), saying that is what is required by the tariff
 - Several states (both regulated and retail access states) have had utilities ask their PUC for additional revenue to recover cost not recovered in the market

Why should attorneys care about this?

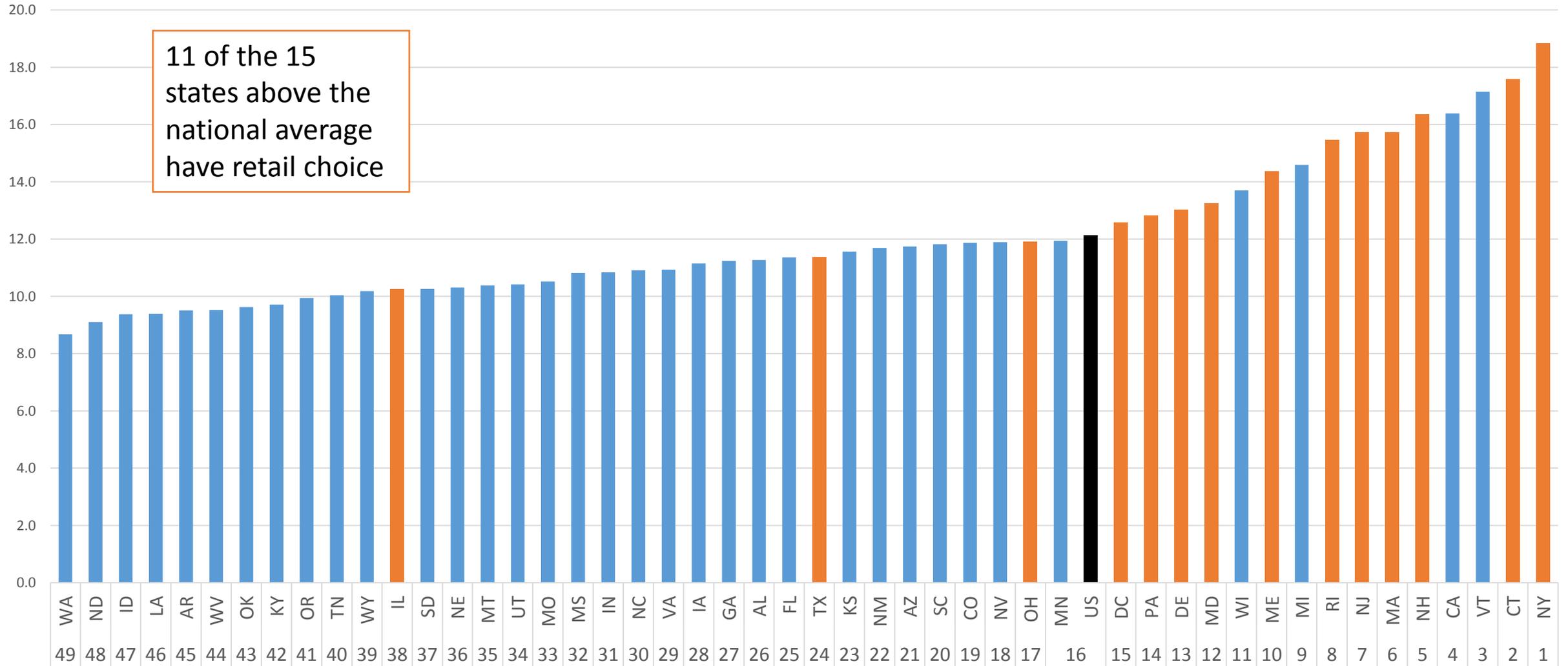
(continued)

- There is a pattern here – of sellers in supposedly competitive wholesale markets asking for extra-market compensation
- You are being asked to consider tricky economic issues going forward based on law—which is usually not designed to cope with such matters or are not up to date
- We find our selves in a spot where customer prices are increasing, so customers are unhappy—but suppliers are unhappy too because $P < AC$ for many suppliers
 - how long will this last?
 - is this a feature of restructured markets? Boom and bust cycle we see often in energy markets?

Average Retail Price of Electricity



2013 Average Retail Price Rank -- Residential (c/kWh)



FERC market manipulation enforcement actions

- In most cases, very complex transactions using multiple wholesale market products and financial instruments
- Market traders have been exploiting the system designed to fit electric supply characteristics
- In many cases they did so with a relatively modest amount of capacity in their control
- Is FERC just scratching the surface on this issue?

Is there even a problem?

- Some think what FERC has characterized as market “manipulation” is just normal price-taking, profit-maximizing behavior
- The price is the price, and a market outcome always sends the correct “signal” to suppliers and consumers, eventually (hopefully, before we’re all dead—as Keynes might say)—
 - *sounding a little like Dr. Pangloss, “all is for the best in the best of all possible worlds”* – nothing ever seems to alter their cheerful opinion of market outcomes (except that the price is “too low” now)
- However, this is clearly price-*making* behavior (i.e., market power, the power to raise the price above a competitive level), not price-*taking* behavior (no or little ability to raise the price unilaterally)

William Hogan (Kennedy School of Government professor of Global Energy Policy) was quoted as saying* . . .

- FERC is endangering the functioning of power markets across the country by extending its definition of market manipulation in ways that are “extremely dangerous” and could “unravel the entire power market”
- Hogan was quoted as saying,
“It should not be the case that price-taking, profit-maximizing behavior is treated as manipulation and pursued through an enforcement action.”

*William Hogan at the Platts Nodal Trading Conference, keynote address, October 2013; as quoted in *Breaking Energy*, “Recent FERC Settlements Could Unravel Power Markets: Hogan,” in story by Peter Gardett, October 31, 2013.

Wait, is the price too high, or too low?

- How can it be that there is manipulation and market power *and* simultaneously there are claims that prices do not allow the recovery of the cost of generation?
 - location of the generation
 - difference in the unit cost (again, $P < AC$)
- For over one hundred years, the economics of the industry was large systems with multiple sources of generation, with plants of different sizes (from very small to ginormous), fuels, and ramping abilities—often all owned by the same utility
 - customers and utilities both received the benefits of scale and vertical economies
- Utility unbundling since restructuring began (for FERC, under Order 888) now means that every plant and unit must stand on its own
 - if extra-market compensation is not received, then shutdown is possible
 - if Harry was here he might say I told you so!



SCIENCE

Science Proves It: Greed Is Good

Jeffrey Kluger @jeffreykluger | March 28, 2014



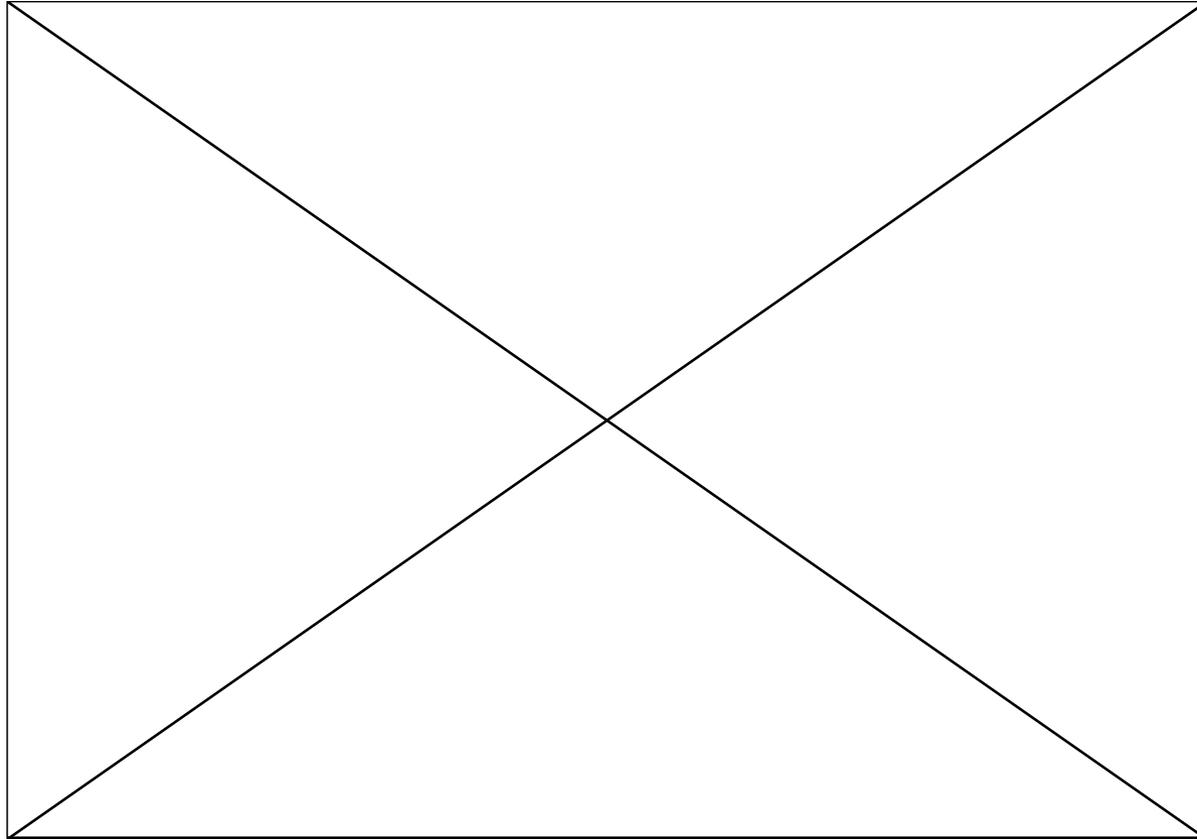
- “Using mathematical models of human social groups, the researchers found that when communities are hierarchically structured—meaning that there is a potential for high inequality too—the individuals at the top tend to make more of an effort in the interests of the group than those at the bottom, including competing with outside groups and facing potential danger in the process.
- “The authors detected that behavior across nearly all cultures, and cite corresponding studies of chimps, blue monkeys and ring-tail lemurs, showing that higher ranking individuals tend to venture closer to the perilous border of the group’s territory during patrols, and high-ranking females will join the males in combat with other groups.
- “In return, the lower ranking members are allowed to become what is known as free-riders, hiding behind the skirts of the big shots and contributing little on their own.

CNN's Fear & Greed Index



<http://money.cnn.com/data/fear-and-greed/>

Capuchin monkey fairness experiment



<http://www.youtube.com/watch?v=-KSryJXDpZo>

- “Some economists and scientists have argued that cooperation is not a rational, or logical, behavior for species individuals since energy or other resources must be expended in the effort—with no direct benefit to the cooperative individual.
- “But Fehr, the Swiss economist from the University of Zurich presently based at the Massachusetts Institute of Technology in Cambridge, among others, rejects such thinking. He argues that logic applies not just to the ends but to the means during economic decision-making. ‘There is nothing irrational in being altruistic,’ he said in a telephone interview.”

National Geographic News, October 28, 2010

Why regulation—and what you do matters—matters

- Yes, incentives work and are generally good – but when one monkey gets more grapes than they can eat in several hundred lifetimes, and most of the remaining monkeys get barely enough cucumbers to live on, then something is seriously wrong
- That's why we have regulation
- Regulation, at it's best
 - levels the playing field for products and services that are essential to everyone
 - where markets have been introduced, should design the markets to minimize market power and take decisive enforcement action when there is an exercise of market power, fraud, or market manipulation
- Regulation is only as effective as the hard working and dedicated people that implement it are