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## Facts vs. Rhetoric on EPA Rule-Making

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### SUMMARY

- The EPA rule-making process on electricity generating utilities will have an impact on businesses, consumers, and the environment, but the exact impact is difficult to quantify in advance.
- Players in this energy debate, from interested businesses to Members of Congress may be quick to use dramatic rhetoric on the worst-case scenario, in an effort to influence the process.
- Beyond the rhetoric, however, is a highly significant energy debate that requires a commitment to facts and a responsibility for oversight.

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### ANALYSIS

To paraphrase the late Senator Daniel Moynihan, many groups in Washington are feeling entitled to their own opinions, but few are actually committed to fact finding. Look no further than the overheated rhetorical flourishes that come from all sides regarding the Environmental Protection Agency's (EPA) rulemaking on the Clean Air Act related to electricity-generating utilities.

A quote from the business- and utility perspective: *"The proposed Utility MACT rule announced today is an excessive regulation that will cost billions of dollars, lead to higher electricity prices and cause significant job losses. In addition, electric system reliability could be compromised by coal retirements and new environmental construction projects caused by this proposed rule and other EPA regulations. Stringent, unrealistic regulations such as these will curb the recent economic growth we have seen."*

A quote from the environmental side: *"America's #1 front group for coal, misleadingly named the American Coalition for Clean Coal Electricity (ACCCE), wants to keep on spewing unlimited amounts toxic air pollution (mercury, hydrochloric acid, non-mercury metallic toxic pollutants, and sulfur dioxide)—pollution that damages children's brain development and IQs, cause premature deaths, asthma, and heart and respiratory diseases, negatively impacts fishing and other recreation, and harms ecosystems."*

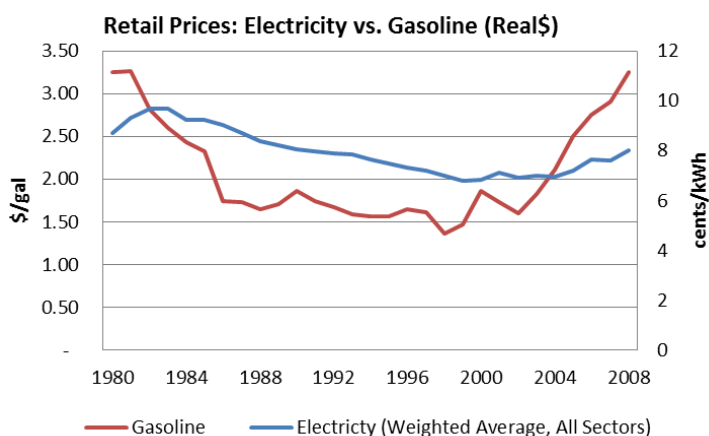
In an effort to understand where the truth falls between these extreme characterizations, the House Energy and Commerce and Senate Environment and Public Works Committees have been holding regular oversight hearings on the proposed and pending EPA rule-makings related to electricity-generating utilities. The hearings aim to understand a series of fundamental questions.

What are the potential effects on the electrical generating system of recently issued EPA regulations to reduce toxic emission from power plant emissions? Will the rules increase the cost of coal-fired power generation and cause the early retirement of otherwise economic generating assets?

Why would environmental regulations directed at coal-combusting power plants matter to those concerned with our economic and energy security? The short answer is electricity is central to our 21<sup>st</sup> century way of life – our economy, our health and welfare and general quality of life today are all dependent on reliable electricity. Further, as our domestic transportation system transitions toward greater electrification, electricity cost and reliability issues also become energy security issues in the traditional sense of personal and military mobility and the movement of goods and services.

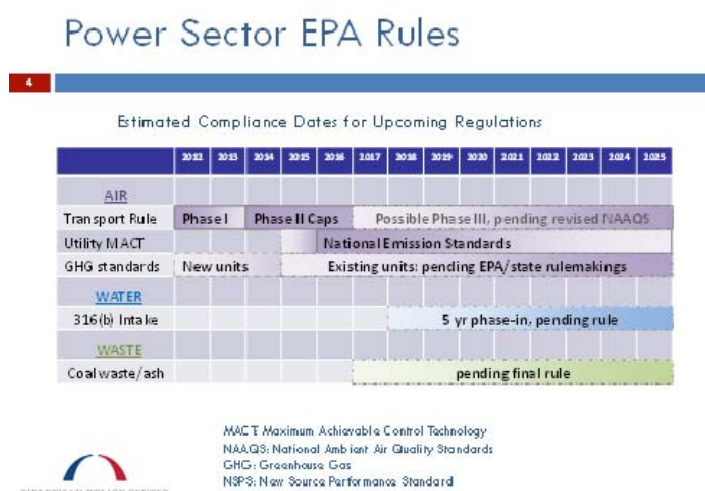
Indeed, one of the main attractions of an electrified transportation system is that we currently generate electricity from a diverse set of fuels and technologies: coal, natural gas, nuclear and renewable – all of which are primarily domestically sourced. Moreover, retail power prices are far more stable than oil and gasoline prices. This domestic diversity and price stability equates to security against the kind of price shocks that have characterized our oil dependency, whether those shocks are the result of extreme weather events, hostile foreign manipulation, or the rapid rise of new large demand centers and a concomitant reduction in spare capacity margins.

FIGURE 1.1 Energy Price Stability



The Debate. Acting under the authority granted to it by the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act, EPA has proposed multiple regulations affecting the power sector that will require pollution controls and related capital investments in new technologies in the coming years – and will also, in combination with expected low and stable natural gas prices, lead to the retirement of some coal-fired power plants. The number of retirements and the cost of the pollution controls are at the crux of the current reliability and electricity price debate.

FIGURE 1.2 Power Sector EPA Rules



As recently as July 7<sup>th</sup>, the EPA finalized the so-called Cross-State Air Pollution Rule in an effort to reduce emissions of sulfur dioxide and nitrogen oxides in 27 eastern states. EPA estimates that the regulation ultimately will prevent “up to 34,000 premature deaths, 15,000 nonfatal heart attacks, 19,000 cases of acute bronchitis, 400,000 cases of aggravated asthma, and 1.8 million sick days a year beginning in 2014 – achieving up to \$280 billion in annual health benefits.”

Less than a week later, U.S. Rep. Ed Whitfield (R-KY), Chairman of the House Subcommittee on Energy and Power, offered a bipartisan amendment with Rep. Mike Ross (D-AR) to delay for at least six months that regulation and the Utility Maximum Achievable Control Technologies, or Utility MACT rule, citing the impact on in-state coal producers, jobs, and consumers. Meanwhile, Senate Clean Air and Nuclear Safety Subcommittee Chairman Tom Carper (D-DE) praised the rule.

These differences between associations, interest groups and elected officials are also reflected within the power sector itself. In testimony before the House Energy and Commerce Committee, sophisticated and responsible companies set forth starkly different visions of the future: “Southern Company is concerned about the ability of the industry to build new environmental controls or replacement capacity in three years to comply with the Utility MACT rule. A recent study conducted by ICF International for the Edison Electric Institute confirms that the Utility MACT rule will trigger the retirement of significant generating capacity and will require new capacity.”

At the same hearing, members of a utility coalition called the Clean Energy Group expressed a different view. These companies testified that the rule “provides the business certainty the electric sector needs to move forward” and “provides sufficient time to comply as well as the authority to accommodate special circumstances where additional time is necessary.” It is easy to dismiss this as a dispute between regulated, coal-heavy utilities on one side and merchant, gas and nuclear-based segments of the industry on the other. In truth, the debate is more than Kabuki Theater. There are legitimate differences of opinion centered on four key variables:

- Can control technologies be deployed effectively at reasonable cost?
- Will EPA take advantage of discretionary flexibility contained in environmental laws?
- Will EPA, the Department of Energy and the Federal Electricity Regulatory Commission coordinate and cooperate to ensure compliance without electricity outages?
- And, most importantly, will natural gas prices stay low?

On the first point, the cost of complying with the Utility MACT rule varies considerably if plants must install scrubbers as pollution control equipment as opposed to using dry sorbent injection. Both are commercially available, but capital costs for scrubbers are significantly higher than for dry sorbent injection (DSI). Those who assume higher costs point to the lack of sufficient performance data for this application of DSI, whereas lower costs can be assumed if performance from demonstration projects translates to large-scale commercial performance. Most studies cited in the debate also assume that EPA will lean toward the most stringent regulatory model rather than provide flexibility. This assumption, while reasonable as a planning principle, probably does not comport with political realities as an Administration gears up for a reelection bid in a disturbingly weak economy. But a great deal of uncertainty remains as the EPA has access to a variety of procedures, but offers no guarantee of actions. The EPA has built-in flexibility under the Clean Water Act, as permits are issued on a staggered schedule and states have authority to make site-specific determinations that can reduce compliance costs, and the rule promulgated in March 2011 so provides. Even the more prescriptive, pending Clean Air Act MACT rule can incorporate features that increase flexibility such as emissions averaging among multiple units at a facility and alternative performance standards.

The DOE and FERC are charged with ensuring the stability and reliability of the system under authorities contained in the Federal Power Act. DOE can act in an emergency to order a given unit to continue generating and delivering electricity. FERC can approve so-called “reliability-must-run” (RMR) contracts when a regional transmission organization or independent system operator determines that a proposed unit retirement will imperil system reliability. The question is, will they? The agreement can ensure compensation to the generator for continuing to run or installing pollution control equipment on what would otherwise be an uneconomic unit. More importantly, DOE and FERC can use their information-gathering and report-generating authorities to ensure that utilities have plans in place across a region to prevent shortages by coordinating outages necessary to install pollution control equipment or repower using natural gas.

Because repowering with natural gas or replacing retiring coal-fired units with natural gas units is a likely compliance strategy for many utilities, any responsible analysis will show that the most important single variable in the regulatory-reliability equation is future natural gas prices. Lower gas prices make some current coal-fired units uneconomic regardless of environmental regulation, while ensuring that others will be retired rather than subject to expensive pollution control equipment installation. It will also be economic to increase capacity utilization at some existing natural gas-combusting generators or to dispatch electricity from natural gas plants

rather than competing coal plants. These benefits are likely to exist as long as natural gas can be developed at prices in the range of \$6 per million British thermal units (MMBtu), as it has been for the last two years.

On the other hand, should efforts to restrict shale gas production through regulatory measures succeed, and/or prices are driven up through exports or by new market demand in the transportation sector, the power sector may be less able to rely on natural gas as an affordable compliance strategy.

#### Conclusion

It is much the fashion in Washington today to decry the absence of substantive policy debates while lamenting the rise of “gotcha ads,” the “24/7 news cycle” and the supremacy of sound bites. In energy policy, however, a real debate based on honest differences of opinion with important implications for electricity reliability is being conducted in the halls of Congress and the offices of the Administration. How regulation of the power sector plays out will have important consequences regarding the development of the industry over time.