POWER Engineering

INDUSTRY WATCH

What was CSAPR really driving?

BY RODNEY DURBAN, DIRECTOR, CLEAN AIR INITIATIVE, ABB INC.

hen it became clear that factors such as new EPA regulations and an excess supply of natural gas were set to drive a significant change in the power generation and transmission industry, it prompted some power companies, including ABB, to make necessary adjustments and create new initiatives to deal with these changes proactively.

These new initiatives were predicated on the belief that these EPA regulations would create needs among utilities and industrial companies that required dedicated attention in reaching compliance goals.

Adding further industry anxiety was the decision made on August 21 by the DC Circuit Courts regarding the Cross State Air Pollution Rule, also known as CSAPR.

According to the court, EPA erred in two ways. First, EPA proposed a system where some states would be required to clean up pollution in excess of their significant contribution to downwind states' non-attainment. Second, EPA simultaneously issued the rule and an accompanying federal implementation plan without first allowing states an opportunity to develop and deploy their own state implementation plans.

Since the issuance of that decision, there has been, surprisingly, a decidedly muted reaction from utilities. In a September 4 presentation at Barclay's CEO Energy Power Conference, Art Beattie (Southern Company CFO) said that the CSAPR ruling had no impact on Southern Company's capex spending plans. After all, the throwing out of CSAPR does not relieve EPA of their legal responsibility to address the issue of interstate pollution. Even if EPA does nothing in the form of a new proposal to address this issue, CAIR covered sources will in 2015 be required to surrender 2.86 credits for each ton of SO2 emitted (currently the rate is 2 credits\lb).

Still, considering the staunch opposition to CSAPR, it seemed reasonable to expect utilities to make more announcements regarding changes in plans. Perhaps it's just too early, but, I suspect this has more to do with other factors.

Much has been written regarding the historically low price of natural gas. To be certain, confidence in projections of low future pricing of natural gas will factor prominently into new generation investment decisions; but, it is important to acknowledge that the trend toward natural gas generation is not a recent phenomenon.

Since 1988 about 350 GW (2,800 units) of new gas have entered service. Compare that only 37 GW (235 units) of new coal. Low initial capital costs and the simplicity of operating natural gas fired units have been driving the industry to risk exposure to gas price volatility for some time.

Another strong influencing factor is the age of the coal-fired fleet. According to a recent EPA presentation, nearly 50 percent of the coal-fired fleet is over 40 years old. Some retirements are inevitable. In the interest of preserving fuel diversity, utility companies would like to have the option to replace those older plants with the next generation of supercritical coal – proposed greenhouse gas

regulations will make that unlikely. In addition to the obvious impacts on generation units, the decision to retire existing coal-fired facilities also has consequences for the transmission system. VAR (volt-amp reactance) support has become a pressing concern for many utilities and there are a number of choices to be made in selecting the right solution.

As is the case with the selection of appropriate pollution control measures, choosing the right VAR solution requires careful deliberation with respect to initial capital cost and ongoing O&M costs. Some lower initial cost solutions aren't suited to remote unattended operation and likely aren't the best choice for a site where the ultimate goal is to completely shutter the facility.

The mercury and air toxics standard, coal combustion residue, and water intake rules are still looming on the horizon. It is extremely difficult to operate in an environment where so much uncertainty exists. It's tough for utilities and it's tough for those of us working to serve the industry; but, based on previous experience and history, the industry will execute plans that comply with regulations, protect their customer, and maintain an astonishing level of reliability The good news is that there are industry organizations that share these values, and are willing to invest in people to ensure that we are prepared to work together to help companies meet their compliance goals and objectives.

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