



Can Wholesale Power Markets Survive Subsidies?

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“Subsidies are contagious,” warned Joe Bowring, President of Monitoring Analytics and the Independent Market Monitor for PJM, in Monday’s energy policy seminar. Bowring, who is responsible for independent oversight of one of the largest wholesale electricity markets in the country, explained his perspective on how the use of subsidies interacts with PJM’s markets, and the impact additional subsidies might have.

Bowring focused particularly on the subsidies recently proposed in the “DOE NOPR,” (Department of Energy Notice of Proposed Rulemaking) the recent DOE request to FERC for a ruling that would establish additional subsidies for electricity generating plants able to keep a three-month supply of fuel on site in order to enhance grid “resiliency.” In practice, this would be expected to apply to coal plants and perhaps to nuclear plants.

Bowring began by reviewing some key trends in the PJM market that have made it hard for coal plants to compete. The short run marginal costs of operating gas plants have been declining and have recently been below the short run marginal costs of operating a coal plant. Existing coal plants are running less than before—down to about 1/3 of the time. Meanwhile, 2016 saw the lowest energy prices in PJM’s history. Taking the above circumstances together, Bowring observed that the “problem” for coal plants “is competition. Markets are tough.”

Nevertheless, Bowring said, while new entry into the market by coal and nuclear plants may be uneconomic, continued operation of existing coal and nuclear plants is often still profitable, and these sources of generation continue to play a significant role in the PJM market. In fact, measures of fuel diversity in PJM show diversity levels to be the highest they have been in the past fifteen years and relatively close to a theoretical maximum level of diversity (7 on a scale where the maximum theoretical value is 9). Bowring pointed out that the PJM markets have successfully managed substantial retirements and the entry of new units, and that operation of the PJM markets has resulted in a reliable and resilient grid.

Bowring acknowledged that some factors are not fully accounted for in the market. These factors include carbon emissions and potentially fuel reliability issues related to the issue of “resiliency” raised by the DOE. In both cases, however, Bowring suggested that non-subsidy approaches would be vastly preferable. In the case of carbon emissions, he noted, a price on carbon would resolve market problems without the need to resort to subsidies. On the question of “resiliency,” rather than embracing the proposed subsidies, Bowring suggested a closer examination of the underlying concerns about reliability of the fuel supply, and especially of the supply of natural gas, which seem to be implicit in resilience concerns. Bowring acknowledged that there are “some issues” with the way the gas system currently interacts with the power market, but suggested that these should be addressed directly, not by reducing reliance on natural gas for electricity generation, but by finding a better way to manage the delivery of natural gas—perhaps through an institution like a natural gas system operator.

Bowring spoke as part of the Kennedy School’s Energy Policy Seminar Series, which is sponsored by the Consortium for Energy Policy Research of the Mossavar-Rahmani Center on Business and Government.

