Customer Sovereignty: Why Customer Choice Trumps Administrative Capacity Mechanisms

In a functioning market, price performs a central role of rationing existing capacity to those who value it most and signaling the need for capacity investment. Together, price signals and demand response restrain price spikes when the system is under stress, reducing the political impulse to intervene with measures that erode incentives for capacity investment that would mitigate price excursions.

I. Introduction

Demand response (DR) is gaining advocates as many come to understand DR’s role in making the transition from regulation to competition in power markets less hazardous for customers and market participants. Two recent publications attest to that, both interestingly by regulators and both addressing the role of DR in ensuring capacity adequacy. One was produced by the staff of the Federal Energy Regulatory Commission in response to a mandate under the Energy Policy Act of 2005. The other, from Mark Reeder of the New York Department of Public Service, appeared in The Electricity Journal.1 Although both arrive at the same conclusions as we do about the effectiveness of DR in enabling capacity adequacy to be achieved economically, they have a different view of how we have arrived at our current perilous place (from a restructuring perspective), what problem the
introduction of DR solves, and how quickly DR can be introduced and how to achieve its introduction. The only differences that are worthwhile highlighting are the issues of the speed at which DR can be introduced and how to get it done, since the others are only important in a historical sense and are unrelated to the common conclusion that DR has an important role to play in ensuring capacity adequacy.\(^2\) We believe, as we discuss below, that it is feasible and beneficial to introduce DR in the short term, rather than taking the less aggressive views of the FERC staff and Mr. Reeder.

A. The issue

In a market economy, price is the communication mechanism between producers and consumers. Prices signal millions and billions of individual consumption and production decisions and are formed through the interaction of producers and consumers. Competition among producers and decisions by consumers result in the prices being “efficient” in that the economy produces what consumers want, with neither too many resources being dedicated to products or services that consumers do not value nor too few to those that they do value. Price rations existing capacity, and signals the need for investment in additional capacity, or the retirement of plant rendered obsolete either from technological competition or lack of market demand.

Regulators and politicians have been reluctant to rely on market forces in power markets and to accept the prices that result. Rather, they have implemented price caps, created market monitors to police power markets, and resorted to the bludgeon to obtain results that they deem acceptable. The most recent incarnation of the interventionist tendency is the development of administrative capacity mechanisms and/or the imposition of reserve margin obligations on load-serving entities (LSEs).

The genesis of the felt need for such market intervention is the price excursions experienced in a number of the formal power markets coupled with the deep sense that electricity is too important to the welfare of customers to be subject to tradeoffs based only on price. The California debacle set the stage for much that followed. We can and have debated the reasons for that disaster, from the innocent to the nefarious. But the one thing that must be clear to everyone is that the motivation for the post-debacle administrative invasion of power markets is the unwillingness of politicians (at the behest of their constituents, who are also electricity consumers) to accept the reality or even the prospect of high prices.

The reason most often proffered by economists for the inconvenient tendency of prices to spike just when customers most ardently want to consume electricity is the apparent lack of demand response to tight supply. During periods of system stress induced by supply imbalance, wholesale power prices rise – sometimes to stratospheric levels – yet consumers show little restraint in their consumption. The lack of consumer response to high prices should not surprise anyone, since consumers do not see the price: few, if any, customers in any particular market are on real-time tariffs. Some\(^3\) have labeled the lack of demand response a “market failure” and argue that administrative requirements and mechanisms are necessary to ensure the availability of sufficient capacity to serve the demand that may be present, whether or not that demand is price-responsive.\(^4\) The lack of a robust price-responsive demand, however, is a failure of design and will – not a flaw inherent in power markets.

B. Principal theses of this article

There are two principal theses of this article. First, markets should
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