

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Demand Response Compensation in)
Organized Wholesale Energy Markets)

Docket No. RM10-17-000

COMMENT OF THE FEDERAL TRADE COMMISSION

May 13, 2010

I. Introduction and Summary

incentives to provide demand response will (1) allow demand response providers to sell power at an LMP that accurately represents social cost and (2) require firms to pay the same amount for their power, regardless of whether they use it or sell it to a demand response program. Stated differently, policies that give the wrong incentives may make it more profitable for demand response providers to sell power rather than consume it to produce socially desirable goods or services.

We question the soundness of a policy that would pay companies the proceeds from the sale of power that they never bought in the first place. Such a policy would create situations in

compensation of demand response providers and articulate the conditions under which such interventions would be phased out.

The inaccuracy of current LMPs is a separate issue from the need to charge end-users the same price for power that they consume and for power that they sell. A policy approach that separates these issues and directly addresses each issue will be easier to design in the near term and to revise as necessary in the long term.

II. Interest of the Federal Trade Commission

The FTC is an independent agency of the United States Government responsible for maintaining competition and safeguarding the interests of consumers, both through enforcement of the antitrust and consumer protection laws and through competition policy research and advocacy. The FTC often analyzes regulatory or legislative proposals that may affect competition or allocative efficiency in the electric power industry. The FTC also reviews proposed mergers that involve electric and natural gas utility companies, as well as other parts of the energy industry. In the course of this work, as well as in antitrust

held public conferences on energy topics, including *Energy Markets in the 21st Century* (April 10-12, 2007)⁸ and *Carbon Offsets & Renewable Energy Certificates* (January 8, 2008).⁹

The FTC and its staff have filed numerous competition advocacy comments with FERC and participated in FERC technical conferences on market power issues. For example, in March 2007, the Deputy Director for Antitrust in the FTC's Bureau of Economics served as a panelist for a technical conference on FERC's merger and acquisition review standards under Federal Power Act Section 203 (Docket No. AD07-2-000). Similarly, the FTC submitted comments in December 2009 in FERC's proceedings on possible elements of a National Action Plan on Demand Response (Docket No. AD09-10-000)¹⁰ and on transmission planning processes (Docket No. AD09-8-000).¹¹ In March 2010, the FTC filed a comment on performance metrics for RTOs and ISOs (Docket No. AD10-5-000),¹² and last month the FTC commented in response to FERC's Notice of Inquiry concerning integration of variable energy resources (Docket No. RM10-11-000).¹³ The FTC also has commented on FERC's initiatives to promote wholesale electricity competition and on various state issues associated with restructuring the electric power industry.¹⁴

⁸ Conference materials available at <http://www.ftc.gov/bcp/workshops/energymarkets/index.shtml>.

⁹ Conference materials available at <http://www.ftc.gov/bcp/workshops/carbonoffsets/index.shtml>. Other programs have included the FTC's public workshop on *Market Power and Consumer Protection Issues Involved with Encouraging Competition in the U.S. Electric Industry*, held on September 13-14, 1999 (workshop materials available at <http://www.ftc.gov/bcp/elecworks/index.shtml>); and the Department of Justice and FTC workshop on *Electricity Policy*, held on April 23, 1996.

¹⁰ This comment is available at <http://www.ftc.gov/os/2009/12/V100002ferc.pdf>.

¹¹ This comment is available at <http://www.ftc.gov/os/2009/12/V100001ferc.pdf>.

¹² This comment is available at <http://www.ftc.gov/os/2010/03/100319performancemetrics.pdf>.

¹³ This comment is available at <http://www.ftc.gov/os/2010/04/V100009ferccomment.pdf>.

¹⁴ See, e.g., Federal Trade Commission, Comment before the Federal Energy Regulatory Commission on Wholesale Competition in Regions with Organized Electric Markets, FERC Docket Nos. RM07-19-000 and AD07-7-000 (Apr. 17, 2008), available at <http://www.ftc.gov/be/v070014b.pdf>. A listing of FTC and FTC staff competition advocacy comments to federal and state regulatory agencies (in reverse chronological order) is available at http://www.ftc.gov/opp/advocacy_date.shtml.

III. The Case for Making Demand Response Providers Pay the Retail Price for the

In some wholesale markets, however, the “curtailment service provider” that administers the demand response program and pays the customer to reduce load is different from the firm that sells customers power at retail. Retail providers that simply bill customers for the power they use will typically have no reason to bill a customer for power that the customer resold before it passed through the customer’s meter. Further, many entities conceive of demand response as programs that involve paying customers to reduce consumption rather than paying them to resell power. For example, ISO New England’s demand response program website says that “[d]emand response programs compensate large electricity users for reducing consumption when market prices are high or demand is high and system reliability is at risk.”¹⁹

Demand response programs do not fully correct these flaws when they fail to correctly define and price valuable rights to use power when it is scarce. Demand response programs

results. Social marginal cost prices include the marginal cost both to the producer and to the rest of society. Costs to the rest of society include, for example, the cost of pollution. Pricing at the social marginal cost gives firms an incentive to generate power only when its benefits to society outweigh its costs to society, yielding maximum welfare.

Nevertheless, if LMPs omit important social costs (such as environmental degradation), then LMPs understate social marginal cost. This is currently the case with LMP calculations. For example, if power prices do not include the costs of the generator's pollutants, the LMP will fall short of the social marginal cost of power generation.²⁶ Similarly, market power can inflate prices and market mitigation measures (such as offer caps) can suppress price changes, both of which cause LMPs to diverge above or below the efficient price.

Thus, current LMPs may understate the social cost of power during greater scarcity periods. Giving demand response program participants an extra incentive equal to the retail cost

If FERC needs an interim solution, it should not implement a program allowing demand response providers to pay nothing for the power they resell. Rather, FERC should take direct action to adjust LMPs (or, if necessary, the compensation of demand response providers), and should articulate the conditions under which such interventions would be phased out.

In the longer term, policy makers can provide more efficient compensation for demand response by taking steps to improve market operations and make LMPs more accurate. These steps include (1) adjusting LMPs to better reflect the full social costs of electricity, (2) improving the accuracy of retail pricing and otherwise facilitating greater demand elasticity (to curtail potential market power), and (3) reducing dependence on offer caps and capacity markets.

Time-invariant retail pricing forces customers to buy a bundle of two products – electric power and mandatory insurance against price variability. The insurance bestows on customers a valuable, unlimited right to use high-cost power at an averaged-out price during high-cost periods. The costs of this ill-defined, ill-priced right are spread across all the customers on the rate, regardless of whether they want that right or the responsibility to pay for it. The cost of insurance reflects costs of building and operating a system that can handle overconsumption of power during high-cost periods that occur only because customers do not have to pay the true costs of power.

Demand response programs begin to address this overconsumption. A power system with time-invariant prices subsidizes power consumption during high-cost periods and penalizes consumption during low-cost periods. The example below illustrates how a combination of demand response and time-invariant retail prices can alleviate some, but not all, of the losses to society stemming from time-invariant retail prices. The example does not capture the fact that, if there is enough demand response, then peak-period prices will fall and the cost of price insurance will drop.

Consider the following example: There is an electricity market where the typical customer buys 1 unit on low-demand days when the LMP is \$50/MWh and buys 2 units on high-demand days when the LMP is \$250/MWh. For this example, we assume that there are 8 low-demand days for every high-demand day. Thus, the time-invariant or average price is \$90/MWh.³⁰

Consider a firm in that market that can convert 1 MWh of power to a product worth \$85. The firm should operate on every low-demand day because that creates \$35/MWh of social surplus, and it will have incentives to do so if it buys power under a real-time pricing system that offers it power at the LMP of \$50/MWh.

By contrast, if the firm is on time-invariant pricing without demand response, it will never operate and society will never realize any of the social benefit that its operations would have created. The problem arises because time-invariant pricing forces the firm to buy a price hedge bundled with its power. In this example, the cost of power plus the hedge is greater than the benefit to the firm from consuming power.

³⁰ $[(8 \text{ days} \times 1 \text{ unit} \times \$50) + (1 \text{ day} \times 2 \text{ units} \times \$250)]/10 \text{ total units} = \90 . For the sake of

If the firm buys power under a time-invariant pricing system, but with the kind of demand response program discussed in this comment, then the firm likely will operate just enough to earn the right to sell back power during the high-demand period. It is thus cashing in the hedge, but flawed rules – such as “you qualify to sell 2 MWh in the demand response program if you consumed 1 MWh on the low-demand day before the high-demand period” – mean that the firm in this example finds that its most profitable strategy is to operate only on low-demand days before high-demand days. Such a program, however, would create efficient incentives for firms that get more benefit from consuming each kWh than the \$90/MWh that they pay when they consume power under the flat rate.