BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

In the Matter of the Adoption of Rules and) Regulations To Implement the Provisions) Of 26 DEL. C. CH. 10 Relating to the)	PSC Regulation Docket No. 49
Creation of a Competitive Market for) Electric Supply Service)	

COMMENT OF THE STAFF OF TH E FEDERAL TRADE COMMISSION [1]

a list and explanation of any additional charges.

II. Interest and Experience of the FTC

The FTC is an independent agency of the United States Government responsible for maintaining competition and safeguarding the interests of consumers. The FTC does so through law enforcement, policy research, and advocacy. For example, in the field of consumer protection, the FTC enforces Section 5 of the Federal Trade Commission Act, which prohibits unfair or deceptive acts or practices. In its competition mission, the FTC enforces antitrust laws regarding mergers and unfair methods of competition that harm consumers. In addition, the FTC often analyzes regulatory or legislative proposals that may affect competition, allocative efficiency, or consumer protection. It also engages in considerable consumer education through its Division of Consumer and Business Education.[4] In the course of all of this work, the FTC applies established legal and economic principles as well as recent, innovative developments in economic theory and empirical analysis.

The energy sector, including electric power, has been an important focus of the FTC's merger review and other antitrust enforcement, competition advocacy, and consumer protection efforts.[5] The FTC and its staff have filed numerous comments advocating competition and consumer protection principles with state utility commissions, state legislatures, and the Federal Energy Regulatory Commission.[6] In particular, we have filed a number of advocacy comments concerning retail competition.[7] In our comments directed to state policymakers, one of our

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[4] For an overview of the FTC's education efforts, see the FTC staff's comment to the Consumer Financial Protection Bureau concerning "Request for Information on Effective Financial Education," Docket No. CFPB-2012-0030 (Nov. 2, 2012), available at http://www.ftc.gov/os/2012/11/1211cfpb.pdf

[5] See, e.g, Opening Remarks of the FTC Chairman at the FTC Conference on Energy Markets in the 21st Century: Competition Policy in Perspective (Apr. 10, 2007), available at http://www.ftc.gov/speeches/majoras/070410energyconferenceremarks.pdf. FTC merger cases involving electric power markets have included DTE Energy/MCN Energy (2001) (consent order), available at http://wwwftc.gov/os/2001/05/dtemcndo.pdf, and PacifiCorp/Peabody Holding (1998) (consent agreement), available at http://www.ftc.gov/os/1998/02/9710091.agr.htm

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principal efforts has been to advocate for policies that allow or nurture competition and thus benefit consumers.[8] The FTC's competition advocacy program also has produced two staff reports on electric power industry restructuring issues at the wholesale and retail levels.[9] In addition, the FTC staff contributed to the work of the Electric Energy Market Competition Task Force, which issued a report to Congress in the spring of 2007.[10]

Residential and Small Non-residential Retail Energy Markets in New York State, Cases 12-M-0476, 98-M-1343, and 06-M-0647 (Jan. 24, 2013), available at http://www.ftc.gov/os/2013/01/130125nypsccomment.pdf; Comment Before the Public Utility Commission of Texas in the Rulemaking Regarding Demand Response in the Electric Reliability Council of Texas (ERCOT) Market, Project No. 41061 (Mar. 11, 2013), available at http://www.ftc.gov/os/2013/03/1303texaspuccomment.pdf; Comment Before the Arizona Corporation Commission (ACC) in the ACC's Inquiry into Retail Electric Competition, Generic Docket No. E-00000W-13-0135 (July 11, 2013), available at http://www.ftc.gov/os/2013/07/130716arizonacorpcomment.pdf. See also Comment of the Federal Trade Commission in the ACC's Workshops on Retail Electric Competition, Docket No. E-00000A-02-0051 (Jan. 26, 2009), available at http://www.ftc.gov/os/2009/01/V090001electricityadvocacy.pdf.

[8] See, e.g., FTC Staff Letter to Hon. Stephen LaRoque, North Carolina House of Representatives, Concerning North Carolina House Bill 698 and the Regulation of Dental Service Organizations and the Business Organization of Dental Practices in North Carolina (May 25, 2012), available at http://www.ftc.gov/os/2012/05/1205ncdental.pdf; FTC Staff Comment to Hon. Patricia Todd, Alabama House of Representatives, Concerning Alabama House Bill 156 (Allowing Veterinarians to Work as Employees of 501(c)(3) Nonprofit Spay and Neuter Clinics) (Apr. 26, 2012), available at http://www.ftc.gov/os/2012/04/120426alabamaletter.pdf.

[9] FTC Staff Report, Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition (Sept. 2001), available at http://www.ftc.gov/reports/elec/electricityreport.pdf; FTC Staff Report, Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform (July 2000), available at http://www.ftc.gov/be/v000009.htm (edited compendium of excerpts from previous comcn .Ts

III. Electricity Industry Innovations Warrant Consideration of Competitive Retail Dynamic Pricing To Benefit Customers through Lower Costs, Increased Innovation, and Expanded Variety of Services

Competition has been an effective organizing principle for the United States economy since the founding of the Republic. For more than a century, the promotion of competition has underpinned the federal and state statutes that apply to most sectors of the economy.

Over time, industries subject to economic regulation have represented a major exception to the general rule of open competition. Nonetheless, technological and organizational innovations in certain industries can undercut the rationale for economic regulation. Innovations of this type present an opportunity to introduce or reintroduce competition in regulated industries. The competitive process creates strong incentives for firms to minimize the costs associated with existing production techniques, to innovate, to erode incumbent firms' market power, and to provide the variety of products that customers are interested in buying.

Five of the most significant technical developments in the electricity industry over the past 25 years are:

(1) a trend toward smaller, highly efficient generation units;
(2) the use of wind, solar, biofuel, and geothermal renewable energy sources for generation;
(3) automated dispatch of generators and of transmission and distribution operations;
(4) wide deployment of smart meters that measure and report power use in small time intervals and that can also communicate price and power system status information to customers; and
(5) energy storage technology advances.

The federal government, the states, and many foreign governments have worked over the past 20 years to advance competition in the electric power industry. Like Delaware, several other states have adopted retail electric competition as part of this effort, and they continue to seek improvements in their retail competition regulations and programs to further benefit consumers.[11]

[11] States that have adopted broadly available retail customer choice for electricity services in the service territories of investor-owned utilities include Connecticut, Delaware, Illinois, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and most of Texas. The District of Columbia has also adopted electricity customer choice. Some customers have some degree of electricity retail choice in California, Michigan, Montana, and Oregon. Recently, Illinois, Ohio, and Pennsylvania have undertaken substantial

Retail choice often leads to a market in which suppliers offer a variety of services that can present many benefits to power customers, including enabling them to better match their preferences for bill savings, increased reliability, renewable power, and energy management services. For example, customers can choose ways to lower their electricity bills by shifting power use away from periods when the power system depends on more costly generation resources or faces challenges to its reliability, and they can choose how much power to consume from renewable generation sources.

Some third parties have evaluated the effectiveness of efforts by some states (and Canadian provinces) to foster retail competition.[12] These evaluations list the factors that appear to be important to the people who are preparing the evaluation and explain the reasons for including – and the weight given to – each factor.[13]

The evaluations reveal that when effective retail competition is combined with technical

conditions reduce system costs, support reliability, and provide environmental benefits.[15] Customer responses to higher power prices can be automated through equipment that cuts back or delays power use at pre-set price points. Alternatively, customers can manually adjust their air conditioners or other heavy power users when meters or other communications alert them to higher prices. Reducing power use during periods of high wholesale prices can reduce overall system costs by utilizing lower-cost generation resources and reducing the need for high-cost peaking generators to meet demand spikes. It can support reliability by cutting power consumption when the system is at greatest risk of blackouts or is in the midst of recovering from a service interruption. It can provide environmental benefits by facilitating integration of renewable energy sources and avoiding the use of older, higher-cost generators with higher pollutant emissions during peak demand periods. This process is a critical justification for grid modernization. Collectively, the term "smart grid" encompasses systems that support DR and the sophisticated monitoring of conditions on many components of the power grid.

IV. Dynamic Pricing under Retail Competition Can Help the Power System Avoid Increasing Costs and Threats to Reliability for All Electricity Consumers

Some recent developments appear to underscore the importance of gaining customer assistance in balancing the power system. Electric vehicles (EVs) illustrate this point well.[16] When EVs are recharged off peak (overnight), they help flatten load profiles (reduce peaks and fill troughs in consumption) so that generation and distribution assets will be more fully utilized and their fixed costs will be spread over more power volume, at a lower per-kilowatt unit rate. Conversely, if EVs are recharged during peak demand periods, they could cause significant demand increases during the most costly time of day for power generation and could stress the grid, to the detriment of reliability. Consequently, all consumers benefit if EV owners have incentives to recharge their EVs overnight, even if that is not always the most convenient time for EV owners. Pricing electricity more cheaply overnight than during daytime hours provides EV owners with a powerful incentive to recharge overnight. Both EV owners and electricity

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2013), available at http://www.brattle.com/system/publications/pdfs/000/004/400/original/Consistency_of_Results_in_Dynamic_Pricing_Experiments_Faruqui_et_al_DistribuTECH_012913.pdf?1378772104

[15] See, e.g., Charles J. Black, "Dynamic Pricing Evaluation for Washington" (Jan. 2011), available at http://www.naruc.org/Publications/SERCAT_Washington_2010.pdf; Ahmad Faruqui, "The Case for Dynamic Pricing" (Aug. 23, 2010), available at http://www.brattle.com/system/publications/pdfs/000/004/517/original/The_Case_for_Dynamic_Pricing_Faruqui_SG_Latin_America_Aug_23_2010.pdf?1378772111

[16] See also, e.g., Ahmad Faruqui, Ryan Hledik, Armando Levy, and Alan Madian, Brattle Group Discussion Paper, "Will Smart Prices Induce Smart Charging of Electric Vehicles?" (July 2011), accessible at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1915658

customers in general can obtain even lower bills if EV owners schedule their vehicle charging to coincide with the abundant supply and uncongested transmission that real-time pricing facilitates. For example, an EV owner could use charging equipment to draw power only (or primarily) when the price is below a specified level.

There is wide recognition that it is inefficient and wasteful to apply flat electricity rates for recharging EVs. Nonetheless, we urge the PSC – and state regulators in general – not to jump from this recognition to a determination to limit dynamic pricing only to EV recharging (through a requirement to meter separately the electricity used to recharge EVs). Although such a limited approach can result in EV charging prices that more closely follow system marginal cost,[17] such an approach would be unjustified because EV recharging is just an example of a larger economic point: dynamic pricing for any end use is more efficient and pro-consumer than uniform flat-rate pricing, and regulators should take the steps needed to ensure that dynamic pricing prevails in electricity markets. As di

Oklahoma – vertically integrated utilities – also have well-established dynamic pricing options for customers.[23] Under retail competition, marketers will seek new customers by offering value-added services, such as energy management, control of various types of renewable energy, and assistance in recognizing and implementing opportunities for energy efficiency, onsite power generation, and onsite energy storage. Some of these enhance a customer's ability to respond to changes in electricity prices.

If the innovations associated with retail competition are effective in reducing reliance on flat-rate pricing, then such competition is likely to enhance reliability by enrolling customers to help balance supply and demand on the power syst

price fluctuations are expected to become more important for balancing the electrical system in the PJM area as a whole (including where Delaware residential electricity customers live) and more locally. A requirement of five days' notice would dull customers' incentives to invest in responding to this increased need.

The electric power system in PJM is designed so that changes in wholesale power prices reflect changes in marginal costs at each node of the transmission network.[24] Wholesale electricity prices change all the time at nodes in Delaware and throughout PJM. Dulling the accuracy of customers' responses in Delaware will increasingly threaten to undermine not only customers' efforts to save money on their power bills but also system reliability at state and local levels.

Economists who study differences in retail electricity pricing regimes rank the accuracy of price signals and the impact of dynamic prices on customers' consumption patterns and on their incentives to invest in devices that will allow them to respond more effectively to changes in power prices. In these rankings, real-time prices and various other forms of dynamic pricing offer greater benefits to customers if they are willing to experience greater potential fluctuations in short-term prices.

The Brattle Group discussed tradeoffs associated with several variable rate design alternatives in its independent presentation to a technical conference of the Ohio Public Utilities Commission.[25] Brattle's study examined these tradeoffs by graphing them in terms of risk on one axis (measured as volatility of prices) and rewards on the other axis (measured as expected bill savings). Brattle studied nine rate designs.[26]

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[24] PJM offers an explanation (including color coding of price changes) of the continuous shift in wholesale prices in Delaware and the other states it serves. See http://www.youtube.com/watch?v=h1KPB042RoA. Average wholesale power prices in PJM are displayed at http://www.powerisknowledge.com.

[25] Faruqui, "Dynamic Pricing for Residential and Small C&I Customers," *supra* note 22, at 9 and 10.

[26] The nine rate designs in Brattle's presentation to the Ohio PUC were:

Time-of-Use (TOU): Charges a higher price during all weekday peak hours and a discounted price during off-peak and weekend hours.

stations can be an effective means to reduce charging costs. Automated response technologies have the advantage of operating even when the customer is not home and do not require customers to take any actions at inconvenient times. We encourage the PSC to consider adding an exemption from the five-day notice provision if the customer certifies that he or she would be satisfied with access to ongoing price information or automated price response equipment in lieu of a five-day notification of price changes. This allows customers to make informed decisions about responding to changing electricity prices that may allow them to cut their power bills and help balance system demand and supply more than would be possible under the proposed five-day notice language in Section 2.1.1.9.1.2. The PSC may also wish to require that disclosures of contract termination charges be particularly prominent for customers who have entered into variable price contracts with electricity marketers.

In the alternative, if the PSC concluded for some reason that real-time prices do not provide sufficient information for residential customers, the PSC could reduce the harm (to customers and to electric system reliability) of prior-notice requirements by shifting from a five-day notice to a one-day notice. This would be an improvement, since it would allow most of the rate designs that, as we discuss above, would be disallowed under a five-day notice (including offers that provide greater savings than are allowed under the proposed five-day notification rule). On the other hand, the disadvantage of a one-day notice – relative to the exemption we have recommended – is that the resulting dynamic prices would need to be based on day-ahead prices, which can diverge from prices that would clear the market at the time when the power is actually delivered to customers.

VII. Conclusion

The FTC staff appreciates the opportunity to submit this comment. If you have any questions or comments, please feel free to contact John H. Seegan, Office of the General Counsel, at (202) 326-2702.

Dynamic pricing facilitates customer choice