ARIZONA CORPORATION COMMISSION

In the Matter of the Commission's Inquiry)	Generic Docket No. E00000W-13-0135
Into Retail Electric Competition)	

COMMENT OF THE STAFF OF THE FEDERAL TRADE COMMISSION¹

July 11, 2013

I. Introduction

The staff of the Federal Trade Commission (FTC) welcomes this opportunity to comment on the Arizona Corporation Commission's (ACC's) "Inquiry into Retail Electric Competition." Several significant technical developments, including advanced ("smart") meters, have made it timely to consider retail electric competition as a path to gaining substantial power system efficiencies and facilitating customized electric services that benefit consumers. We have reviewed these technical developments, and our comment describes how they make retail competition feasible and increasingly attractive to consumers. The comment also explains how retail competition can lead to major system efficiencies by moving away from flat retail electricity rates and toward individually tailored electricity services, which can yield numerous consumer benefits that include rate savings, environmental improvements, innovative services not previously available, and enhanced service reliability. Within this framework for identifying the advantages of retail competition for consumers, we also provide insights and references that the ACC may find useful regarding several of the specific matters raised in the ACC's invitation to comment.

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

¹ This comment expresses the views of the FTC's Office of the General Counsel, Office of Policy Planning, and Bureau of Economics. The comment does not necessarily represent the views of the FTC or of any individual Commissioner. The Commission, however, has voted to authorize the filing of this comment.

² Arizona Corporation Commission Generic Docket E00000W-13-0135, In the Matter of the Commission's Inquiry into Retail Electric Competition (May 23, 2013), *available at* http://www.azcc.gov/Divisions/Administration/About/Letters/5-23-13%20Retail%20Competition%2013-0135.pdf.

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.³ 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.⁴ 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 (FERC).⁵ In particular, we have filed a number of advocacy comments concerning retail competition.⁶ In our comments directed to state policymakers, one

³ 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.

⁴ 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://www.ftc.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.

⁵ A listing, in reverse chronological order, of FTC and FTC staff competition advocacy comments to federal and state electricity regulatory agencies is available at http://www.ftc.gov/opp/advocacy subject.shtm#uttg.

⁶ For example, the FTC staff discussed electricity competition issues in its Comment Before the New York State Public Service Commission in the Proceeding To Assess Certain Aspects of the 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; and Comment Before the Public Utility Commission of Texas in the Rulemaking Regarding Demand Response in the Electric

of our principal efforts has been to advocate for policies that allow or nurture competition and thus benefit consumers. One such comment was the FTC's submission to the ACC in 2009 in response to the ACC's Workshop on Retail Electric Competition. The FTC's competition advocacy program also has produced two staff reports on electric power industry restructuring issues at the wholesale and retail levels. 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.

III. Electricity Industry Innovations Warrant Consideration of Retail Competition as a Means 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 been embedded in 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

Reliability Council of Texas (ERCOT) Market, Project No. 41061 (Mar. 11, 2013), *available at* http://www.ftc.gov/os/2013/03/1303texaspuccomment.pdf.

⁷ 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.

 $^{^8}$ See $\underline{\text{http://www.ftc.gov/os/2009/01/V090001}}$.

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 Perspective on Electric Power Regulatory Reform (July 2000), available at http://www.ftc.gov/be/v000009.htm (compiling previous comments that the FTC staff provided to various state and federal agencies).

¹⁰ That report is available at http://www.ferc.gov/legal/fed-sta/ene-pol-act/epact-final-rpt.pdf.

associated with existing production techniques, to innovate, to erode 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. Several 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

In light of technological innovations and the experience of other states, we concur with the ACC that it is again timely for Arizona to consider additional ways to allow retail competition to benefit electricity consumers. For example, innovations in metering, such as those now widely available in Arizona, offer particularly attractive opportunities for electricity customers to select from among specialized retail power suppliers.

Retail choice 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 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.

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 revisions of their retail choice rules to support increased competition. Expansions of retail customer choice (to include customers that currently do not have this choice) are under consideration in California and Michigan.

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

To initiate retail electric customer choice, a state must first remove the legal barriers to entry that alternative retailers face. That is only the first step, however, in developing effective competition. States have fostered retail electric competition by taking a variety of additional steps to educate customers about their new choices and to extend consumer protections to the retail power sphere.

States in which customers are most active in selecting alternative suppliers have sought to address a number of key issues involved in developing retail electric competition, including:

- how to inform customers of new retail electricity suppliers and their offers;
- how customers learn the mechanics of switching to a new electric service provider;
- how to serve electricity customers who do not select an alternative supplier;
- how to serve electricity customers whose supplier exits the market;
- how customers can compare offers made by different suppliers;
- how to price default (provider-of-last-resort, or "POLR") service (if any);
- how to organize billing in order to avoid consumer confusion or higher costs; and
- if a consumer picks a marketer to supply power and continues to receive a single power bill, how and when to transfer funds to the marketer once the distribution utility collects them from the consumer.

Some third parties have prepared evaluations of the effectiveness of efforts by some states (and Canadian provinces) to foster retail competition. 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

descending order) were Texas, Pennsylvania, New York, Connecticut, and Maryland.

¹² See DEFG, LLC, "2012 Annual Baseline Assessment of Choices in Canada and the United States: Electricity Restructuring Scorecard," accessible at http://defgllc.com/publications/consumer-choice/. In 2012, the states with the top five scores for commercial and industrial customers (in descending order) were Texas, Illinois, New York, Pennsylvania, and Maryland. For residential customers, the states with the top five scores (in

¹³ DEFG groups the elements used in scoring retail choice in various states under four topic areas: status of retail choice; wholesale competition; default service; and facilitating customers' identification of, and switching to, an alternative retailer. Details on weights and the specific elements included in each topic area are contained in an appendix to DEFG's annual retail choice scorecard publication (*e.g.*, Appendix H to DEFG's 2012 Annual Baseline Assessment, *supra* note 12).

These evaluations reveal that when effective retail competition is combined with the five technical developments mentioned above, customers are in a position to help address the challenges of balancing supply and demand in the power industry, either at a local level or on a wider geographic scale. When customers are compensated for providing this help, the response is often substantial.¹⁴ Such customer responses to accurate price signals 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 uses 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 units 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 DR 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.

We recommend that the ACC evaluate the promising prospect that retail customer choice will help customers expand and fine-tune their choices of electricity service and contribute to balancing power supply and demand.

IV. Retail Competition Can Help the Power System Transition Away from Flat Rate Pricing That Is Associated with 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") are a development that

_

¹⁴ For a bibliography of papers on the process known as "demand response" (or "DR") prepared by Brattle Group, *see* Toni Enright and Ahmad Faruqui, "A Bibliography on Dynamic Pricing and Time-of-Use Rates, Version 2.0" (Jan. 1, 2013), *accessible at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2178674. Dr. Faruqui (along with colleagues Sanem Sergici and Eric Shultz) summarized several reviews of DR projects in "Consistency of Results in Dynamic Pricing Experiments – Toward a Meta Analysis" (Jan. 29, 2013), *available at* http://www.brattle.com/documents/UploadLibrary/Upload1109.pdf.

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/documents/uploadlibrary/upload870.pdf.

illustrates 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.

There is wide recognition that applying flat electricity rates for recharging EVs is inefficient and wasteful. In light of this, state regulators could lean toward singling out EVs for retail electricity prices that more closely follow marginal cost, while leaving other power uses under flat rate pricing. EV recharging, however, does not differ meaningfully from other end uses of electric power. Flat rate pricing of electricity creates consequential distortions throughout the electric power industry on both the demand and the supply sides.

Flat rate electricity pricing at the retail level – in the face of volatile generation and transmission prices at the wholesale level – results in large subsidies for customers consuming power in peak demand periods and large penalties for customers consuming power in demand troughs. When any retail electric power customers receive such distorted price signals, they frequently make distorted consumption decisions, and the resulting inefficiencies in the power system work to the detriment of all electricity consumers.

Further, flat rates cause all customers to face higher average system costs and lower system reliability, and create disincentives to invest either in methods to improve energy efficiency or in devices to shift consumption to off-peak periods (when system costs and wholesale electricity prices are lower). As with any market, pricing electricity closer to marginal cost improves the overall efficiency of the consumption of the good and reduces deadweight losses. When a customer with distributed generation ("DG") facilities (*e.g.*, solar panels on the roof) faces flat rates, the rates discourage investment in energy storage devices that could help balance supply and demand – most importantly, when the power system is under stress and close to being overwhelmed.

1

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), available at http://www.brattle.com/documents/UploadLibrary/Upload966.pdf.

¹⁷ Paul L. Joskow and Catherine D. Wolfram, "Dynamic Pricing of Electricity" (Jan. 2012), *available at* http://faculty.haas.berkeley.edu/wolfram/Papers/AEA%20DYNAMIC%20PRICING.pdf.

Retail competition can help in a transition away from flat rate pricing, particularly for residential customers. Several pilot programs have shown that residential customers typically have lower power bills under dynamic pricing and generally prefer dynamic pricing after experiencing it in a pilot program. 18 Ideally, under retail competition, some retail electricity marketers will publicize these findings and use them to grow consumer interest in retail electric service offers featuring dynamic pricing. Bills can be reduced by compensating the customer for his or her role in balancing power system demand and supply (once advanced meters are in place, as they largely are in Arizona). Arizona is in the enviable position of already having active dynamic pricing programs that have attracted customers in areas served by Arizona Public Service and the Salt River Project. 19 Gulf Power in Florida and OG&E in Oklahoma also have well-established dynamic pricing options for customers.²⁰ Under retail competition, marketers also will seek new customers by offering added services, such as energy management, mixes 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.

This pattern – featuring lower price offers as well as service innovations offered by marketers – is developing in the Electric Reliability Council of Texas (ERCOT) area of Texas²¹

An example of an innovative dynamic pricing offer in ERCOT is Bounce Energy's seasonal discount program for customers who cut power use from 3:00 p.m. to 7:00 p.m. on the day after the marketer sends them an email Emergency Event alert. The opt-in program (described at http://www.bounceenergy.com/blog/2013/04/save-energy-money-summer-bounce)

¹⁸ Ahmad Faruqui & Jennifer Palmer, "Dynamic Pricing and Its Discontents," Regulation 16 (Fall 2011), available at

http://www.cato.org/sites/cato.org/files/serials/files/regulation/2011/9/regv34n3-5.pdf.

¹⁹ In the aggregate, only about one percent of customers with low levels of power consumption are on dynamic pricing. Ahmad Faruqui, "Dynamic Pricing for Residential and Small C&I Customers" 16 (presentation to the Ohio Public Utilities Commission) (Mar. 28, 2012), available at http://www.brattle.com/ documents/UploadLibrary/Upload1026.pdf.

²⁰ Ahmad Faruqui, "Implementation of Dynamic Pricing: Trends and Debates," 5th Latin-American Smart Grid Forum (Nov. 28, 2012), available at http://www.brattle.com/ documents/UploadLibrary/Upload1097.pdf.

²¹ The Public Utility Commission of Texas asked all load-serving entities in ERCOT to collect statistics on load that is being served under several different forms of dynamic pricing, based on ERCOT's finding that DR was larger than its models predicted in recent years, which in turn could lead to underestimates of the actual reserve margins in ERCOT. Karen Abbott, "ERCOT Asks Retail Electric Providers for Data on Dynamic Pricing/Demand Response Capabilities of Their Customers" (Feb. 7, 2013), available at http://www.energychoicematters.com/stories/20130207b.html.

and is emerging in other states with retail electric competition. In addition, now that retail competition is in place, Maryland and the District of Columbia have approved in principle the full-scale rollout of peak-time rebates for POLR residential customers – a form of dynamic pricing. This parallels earlier decisions in Maryland and other states to use hourly rates for the POLR service available to commercial and industrial ("C&I") customers, as we describe next. Nothing similar has emerged yet in states with traditional, vertically integrated utilities.

Few utilities asked or were allowed to offer time-varying prices until the introduction of retail competition. (The prominent exceptions are those listed in the previous paragraph and the investor-owned utilities in California and Florida.) In several states in the Northeast – including Maryland, New Jersey, and New York – POLR service for C&I customers was converted to hourly retail pricing once retail competition was established (and the necessary meters were installed). As early as 2006, about 25 percent of the large C&I load in Maryland faced hourly prices. The comparable figures were 50 percent in New Jersey and 60 percent in New York. Most of these customers have accepted some variation on hourly prices offered by a marketer. A review of these statistics by utility regulatory staff in Massachusetts concluded that the proliferation of variations on real-time pricing basic service that are designed to accommodate customers' individual needs constitute a sign that the retail electric choice markets in these states are maturing.

Many other C&I customers participate in some type of DR program, but these are often associated with wholesale market DR aggregations that have been legitimized by FERC as a means to improve system efficiency despite the widespread persistence of flat rate pricing in many states.²³ Some observers express concern that FERC has thereby eroded participation in

has attracted 25 percent of Bounce Energy's customers and offers responsive customers a 5 percent discount on their power bills. Another example is TXU Energy's real-time pricing product for residential customers, which offers free electricity on evenings and weekends to encourage customers to shift consumption to off-peak periods. More recently, TXU initiated an offer to small business customers that allows each business to designate a portion of the business day when the price it pays for power will be 50 percent lower. This serves as an incentive to shift consumption to the selected discount period. "TXU Energy Launches First Time-Based Plans for Texas' Small and Medium-Sized Businesses," *BusinessWire* (June 25, 2013), *available at* http://www.businesswire.com/news/home/20130625005128/en/TXU-Energy-Launches-Time-Based-Plans-Texas%E2%80%99-Small.

²² Petition of the Massachusetts Division of Energy Resources for an Investigation into Dynamic Pricing for Basic Service 21-26 (Oct. 31, 2006), *available at* http://www.mass.gov/eea/docs/doer/publications/dyn-price-petition.pdf (examining the experience in other states, including Maryland).

²³ For a discussion of the similarities between DR programs operated by regional transmission organizations and price-responsive retail demand, *see* Paul Centolella and Andrew Ott, "The

dynamic pricing options available at the retail level. Some believe that DR programs operating at the wholesale level may be less efficient than dynamic retail prices.²⁴

On the residential side, other than pilot projects and targeted customer programs, no state has switched residential POLR service to real-time retail prices or other forms of dynamic pricing (although Ontario has done so). The general picture is that utilities have not expressed interest in or been permitted to charge dynamic prices to customers in traditionally regulated states. Part of the problem is also that traditional rate-making approaches may be ill-suited to deal with constantly varying prices or with a proliferation of innovative services, some of which entail bundling energy management services with electric service. Indeed, doing so is restricted in some states because of concerns about unfair competition by utilities that might cross-subsidize their affiliates, to the disadvantage of independent suppliers. ²⁶

V. Responses to Questions in the ACC's May 23, 2013, Letter to Stakeholders²⁷

1. Will retail electric competition reduce rates for all classes of customers – residential, small business, large business and industrial classes?

Yes. If retail electricity sales are opened to competition in an effective way that facilitates realization of new system efficiencies, average costs will fall for all classes of

Integration of Price Responsive Demand in PJM Wholesale Power Markets and System Operations" (Mar. 9, 2009), *available at* http://www.hks.harvard.edu/hepg/Papers/2009/Centolella%20%20Ott%20PJM%20PRD%2003092009.pdf.

²⁴ James Bushnell, Benjamin F. Hobbs, and Frank A. Wolak, "When It Comes to Demand Response, Is FERC Its Own Worst Enemy?," 22:8 Electricity J. 9 (Oct. 2009).

²⁵ Faruqui, "Dynamic Pricing for Residential and Small C&I Customers," *supra* note 19, at 41.

²⁶ For example, Maine prohibits the sharing of market information between utilities and their affiliates, because such information-sharing can disadvantage independent competitors of the utility's affiliates. Lewis Tagliaferre and Susan Greenwood, "Electric Utility Restructuring: What Does It Mean for Residential and Small Retail Consumers in Maine?," Maine Policy Review 64, 66 (Fall 1999), *available at* http://mcspolicycenter.umaine.edu/wp-content/uploads/files/pdf mpr/TagliaferreGreenwood V8N2.pdf. More generally, *see* Comments Regarding Retail Electricity Competition, filed with the FTC by the National Alliance for Fair Competition (Apr. 2, 2001), *available at* http://www.ftc.gov/os/comments/eleccompetition/natallfaircomp.pdf.

²⁷ The questions and responses below follow the numbering in the ACC's letter of May 23, 2013. We address all questions except Question 8 and Question 13.

customers relative to what they would have been without increased competition.²⁸ Even if costs fall under increased retail competition, however, this does not necessarily mean that retail rates should, or actually will, fall. The reason is that once competition supplants the system that prevailed under the regulated, vertically integrated monopoly, many customers may choose a different mix of services – a mix that may be "customized" or "individualized" to the specific purchaser and thus could possibly be more expensive than the historic "one-size-fits-all" service. The new product the consumer receives (electricity plus new services) may be priced higher, but it is more valuable than the old one to certain consumers. For example, a retailer with large inventories of frozen food likely would value reliability in the power supply more highly than other retailers because so much inventory is at risk of spoilage in a blackout. When electricity services are customized, simple price comparisons become more difficult and less meaningful. They may be misleading because of differences among the values of the different bundles of services and equipment that customers may select.

Jurisdictions that have adopted retail competition often have considered total customer bills in addition to rate changes. These two measures of power expenditures can be different. For example, electricity rates could increase, but power bills would fall if the rate increase led to a sufficient decrease in power consumption. Similarly, if rates shifted from being flat in all periods of the day and year to varying in a way that tracks changes in wholesale power prices (dynamic prices), then rates would be higher in some periods and lower in other periods. Customers who cut back their power use when power is most expensive and shift power use to periods when electricity prices are lower will experience the largest decrease in their power bills. Even customers who do not reduce consumption in the most expensive periods will often have lower power bills when other customers reduce their power consumption in the face of the highest prices: a reduction in power use by any subset of customers will reduce the use of the most costly power plants and will thereby produce lower wholesale prices for all customers.

To check how these potential pricing and billing effects work out in the real world, Brattle Group and others have reviewed billing experiences where various kinds of dynamic prices have been introduced.²⁹ The general finding is that most customers, including low-income

²⁸ Assuming that the generation supply stack has the usual hockey-stick shape, the market-clearing price should fall considerably as a result, even if the reduction in peak-period consumption is modest. We also assume that allocations of costs among customer classes remain the same. A customer class could face higher rates if a favorable cross-subsidization were eliminated at the same time. Even in that case, however, the price effect of ending the favorable cross-subsidization would be less than it would have been absent the decline in peak consumption.

²⁹ Faruqui, "Dynamic Pricing for Residential and Small C&I Customers," *supra* note 19. *See also* Faruqui & Palmer, "Dynamic Pricing and Its Discontents," *supra* note 18. The Regulatory Assistance Project and Brattle Group jointly published a more general overview of dynamic

customers, have lower bills when they choose dynamic prices. These savings are most pronounced when responses to dynamic prices are automated. Some reviews of dynamic pricing recommend an extra step: to design the system to minimize the risk that any customer seeking to obtain bill savings by reducing power use in peak demand periods will face higher power bills under dynamic pricing than under flat rate prices.³⁰

2. In addition to the possibility of reduced rates, identify any and all specific benefits of retail electric competition for each customer class.

As discussed above, retail electric competition increases power customers' ability to customize the electricity services they buy.³¹ At the same time, retail electric competition will help customers address the increasing challenges of balancing supply and demand on the electric system, which in turn will help bolster system reliability. In short, retail electric competition creates incentives for service innovations and for greater variety in the electric services available

pricing issues. *See* Ahmad Faruqui, Ryan Hledik, and Jennifer Palmer, "Time-Varying and Dynamic Rate Design" (2012), *available at* http://www.hks.harvard.edu/hepg/Papers/2012/RAP FaruquiHledikPalmer TimeVaryingDynam icRateDesign 2012 JUL 23.pdf. For survey information about views and interests of low-income consumers regarding dynamic pricing, *see*, *e.g.*, Smart Grid Consumer Collaborative, "Spotlight on Low Income Consumers: Final Report" (Sept. 18, 2012), *available at* http://smartgridcc.org/wp-content/uploads/2013/02/SGCC-LI-Spotlight 2.13.pdf. For discussion of participation by low-income consumers in related electric power demand management programs, *see*, *e.g.*, Cindy Boland O'Dwyer, "Engaging and Enrolling Low Income Consumers in Demand Side Management Programs," research project for the Distributed Energy Financial Group's Low Income Energy Issues Forum (June 25, 2013), *accessible at* http://defgllc.com/publication/engaging-and-enrolling-low-income-consumers-in-demand-side-management-programs/.

Traditional utility regulation covered prices, quality, and the variety of services that a utility could offer. Regulated utilities were not in the position of an unconstrained monopolist that might find it profitable to offer individually tailored services that could allow it to more perfectly price discriminate (and thereby more nearly appropriate all of the consumer surplus of its customers).

³⁰ Grayson Heffner, Int'l Energy Agency, "Smart Grid – Smart Customer Policy Needs" 12-13 (Apr. 2011), *available at* http://www.iea.org/publications/freepublications/freepublication/sg_cust_pol.pdf.

³¹ Traditional retail regulation has generally followed a one-size-fits-all approach, with prices set to cover average costs. The traditional regulatory process – with its elaborate rate cases – is ill-suited to allow fully regulated utilities to offer electricity bundled with a proliferation of unregulated, innovative equipment and professional services.

to meet consumers' preferences, and provides rates to consumers that are lower than they otherwise would be. These changes can also improve power system performance and reliability.

3. How can the benefits of competition apply to all customer classes equally or equitably?

Competition empowers all electricity customers to customize the electric services they buy. Some customers will choose to lower their electricity bills, while others will prefer to bundle more services or equipment with their electricity purchases (thereby increasing the product's value). All customers benefit from system efficiencies and enhanced service reliability that result from retail competition, which gives customers incentives to help meet system challenges, such as integrating renewable generation sources and flattening the power system's load profile to better balance supply and demand. When customers help meet system challenges, per-unit system costs are expected to be reduced for all customers relative to what they would have been without the system efficiency improvements.³²

4. Please identify the risks of retail electric competition to residential ratepayers and to the other customer classes. What entity, if any, would be the provider of last resort?

If a state does not extend appropriate protections to consumers when retail competition is introduced to the power industry, consumers could be exposed to questionable sales practices, as has occurred in other industries that lacked consumer protections.³³

The introduction (or reintroduction) of competition into regulated industries has often resulted in customers who are unaware of their new choices or, even if they know choices are available, may not know how to select an alternative supplier. The more customers know about how to compare their electricity service choices, the likelier they are to have the confidence to switch to better offers. In turn, this provides incentives for suppliers to innovate and keep costs down.

States that have adopted retail choice in the power industry have taken a variety of approaches to the possibility of having a POLR service. All retail choice states have an arrangement for continuous supply of electricity if a customer's supplier abruptly leaves the

_

³² See also our response to Question 1.

The Federal Trade Commission Act and subsequent legislation regarding consumer protection policies were enacted to address business practices that undermine efficient markets and harm consumers by taking advantage of information asymmetries, making false or misleading claims, or employing high-pressure sales tactics in approaching vulnerable populations (such as children or the elderly). *See* "An Overview of Consumer Protection Initiatives," *available at* http://www.ftc.gov/oia/assistance/consumerprotection/overview.pdf.

industry. Some states (such as New York) require the distribution utility to provide this service until the customer picks a new supplier, while other states (such as Texas) have a competitive procurement procedure to provide this form of POLR service. For customers who do not pick a new supplier, most states assign such customers to whatever system exists to handle service for customers whose supplier has left the market. An alternative approach that has been used in the natural gas industry in most of Georgia is to assign customers to a retail supplier. For example, the number of customers assigned to a supplier could be based on the number of customers the supplier previously attracted. After the initial assignment, customers can pick a different supplier whenever they so decide. All of these alternatives have been in use for several years and seem to be administratively practicable.³⁴

5. How can the Commission guarantee that there would be no market structure abuses and/or market manipulation in the transition to and implementation of retail electric competition? ³⁵

In moving toward retail electricity competition, one issue that states have encountered is whether to restructure vertically integrated utilities with preexisting monopoly power. States have been concerned that the distribution utility generates or handles a large proportion of the wholesale capacity available to electricity marketers in the state. A near-monopoly of generation sources in the hands of an incumbent distribution utility that also sells electricity at the retail level could make it difficult for potential competing retail electricity marketers to serve business and residential customers at competitive prices. To address this concern, some states (for instance, New York) have required distribution utilities to divest some or all of their generation capacity in order to create independent sources of supply for potential retailers. Other states have required distribution utilities to establish separate generation subsidiaries, with the idea that these new, independent entities would not have an incentive to discriminate against retailers seeking power supplies at the wholesale level.³⁶ The staff of the New Hampshire Public Utilities

_

³⁴ See also our response to Question 1.

³⁵ Concerns about the growth of generation market power through mergers or unfair competition are addressed by means of public and private enforcement of federal and state competition and consumer protection laws. The FTC, the U.S. Department of Justice, FERC, the states, and private litigants address various concerns about increased market power and market manipulation.

³⁶ The establishment of independent grid operators helps to alleviate this concern by broadening the relevant geographic market. FERC's initial efforts to employ behavioral rules to prevent discrimination against independent generators seeking to supply retail marketers and distant utilities proved insufficient. Eventually, in Order No. 2000, FERC accepted arguments made by the FTC and others in support of structural (vertical) unbundling of transmission from generation through the device of independent system operators and regional transmission organizations. The modern spread of organized wholesale electricity markets is consistent with the concerns

Commission suggested another reason to consider separating generation from distribution. The staff recommended separating distribution from generation used to serve POLR service customers because prices for POLR service from the incumbent utility are spiraling upward. The staff noted that other generators could supply POLR service at lower and perhaps declining prices in the competitive wholesale power market, where more efficient generation designs and the use of alternative fuels have been holding costs and wholesale power prices in check in recent years.³⁷

There also can be threats to competition associated with how to recover stranded costs, which can arise when distribution utilities sell or reassess the value of generation assets. We have discussed some of these issues in previous FTC staff comments.³⁸

If the distribution utility also continues to sell power at the retail level, other competition and consumer protection concerns may arise. One such concern is use of the distribution utility's logo by its retail marketing affiliates. The FTC addressed these concerns (and described related original research) in a comment to the Public Utilities Commission of Nevada.³⁹

that the FTC expressed about transmission discrimination. The structural reforms – which resulted in fewer incentives and ways to use the transmission system to impede wholesale competition – alleviated some of the concerns over whether new retail marketers would be able to find attractive sources of supply and over concentration of local generation supplies. Conversely, concerns of this type would increase if there were transmission bottlenecks surrounding an area newly turning to retail electric competition. For an early discussion of the importance of competitive access to power supplies, *see Otter Tail Power Co. v. U.S.*, 410 U.S. 366 (1973).

³⁷ Staff of the New Hampshire Public Utilities Commission and The Liberty Consulting Group, "Public Service Company of New Hampshire: Report on Investigation into Market Conditions, Default Service Rate, Generation Ownership and Impacts on the Competitive Electricity Market" 26 (June 7, 2013), *available at* http://www.puc.nh.gov/Electric/IR%2013-020%20PSNH%20Report%20-%20Final.pdf ("All scenarios result in a default service rate above the rates currently offered by competitive suppliers. . . . The results of the scenarios bear on the question of whether there is a point at which the default service rates would be considered no longer just and reasonable even though they are cost-based rates.").

³⁸ FTC Staff Comment Before the Louisiana Public Service Commission Concerning Stranded Costs and Benefits (Aug. 7, 1998), *available at* http://www.ftc.gov/be/V980018.shtm; FTC Staff Comment Before the Michigan Public Service Commission Concerning Electric Restructuring (Aug. 7, 1998), *available at* http://www.ftc.gov/be/v980019.shtm.

³⁹ FTC Staff Comment Before the Public Utilities Commission of Nevada Concerning Regulated Electric Utilities and Affiliates (Sept. 22, 1998), *available at* http://www.ftc.gov/be/v980027.shtm. Related concerns about the use of a utility logo on a price comparison website are described in "Market Advocates Testify to Texas PUC on CenterPoint's

6. What, if any, features, entities or mechanisms must be in place in order for there to be an effective and efficient market structure for retail electric competition? How long would it take to implement these features, entities, or mechanisms?

We noted above that most retail choice states have found it useful to have clear mechanisms for (1) switching customers to new suppliers; (2) handling exits by suppliers; (3) licensing for new electricity marketers; and (4) handling joint billing by marketers and the distribution utilities. Retail competition regimes that have developed more active consumer involvement in switching suppliers also include a system for handling retail marketers' receivables when the state elects to have consumers continue to receive a single power bill. The typical approach is that the distribution utility must offer to buy marketers' receivables, albeit at a discount. Under this system, the distribution utility continues to be responsible for collecting all power system payments from consumers. The utility then disburses (to the marketers) the funds that reflect each marketer's retail electricity sales. The establishment of a purchase-of-receivables system appears to foster effective entry by marketers.⁴⁰

More generally, we recommend that the ACC consult with electricity market regulators (and their staffs) in states with customer choice regimes in order to gain an understanding of alternative features, entities, or mechanisms that those states have implemented or considered. At the present time, states of particular interest include New Hampshire, Ohio, Pennsylvania, and Texas. Increased consideration of retail competition issues is also underway in states such as California, Michigan, and New York. Of course, circumstances can differ among states, so the precise details of the competition scheme need to be scrutinized.

The ACC also should be aware that retail choice states monitor how existing rules and programs are working so that they can make adjustments to suit changing technology and other circumstances. It could be useful to catalog why and how such adjustments have been made in

Website," *Restructuring Today* (June 7, 2013), *available at* http://www.restructuringtoday.com/public/12667.cfm.

40

⁴⁰ For example, the Retail Energy Supply Association (RESA) asked the New York State Public Service Commission (NY PSC) to implement a purchase-of-receivables program in the service territory of the Long Island Power Authority. The proposal was an element in RESA's proposals to invigorate retail electric competition in that area of New York State. RESA recommended that the NY PSC take steps to allow Long Island's electricity switching levels to more closely approximate those in other parts of the state. RESA's Comment to the NY PSC in Matter No. 12-00314 – LIPA Management & Operations Audit (Mar. 8, 2012), *available at* http://www.resausa.org/sites/default/files/RESA%20LIPA%20Comments%20Filed.pdf.

states with retail electricity competition. We also recommend periodic reviews of retail competition rules to keep them up to date.

7. Will retail electric competition require the divestiture of generation assets by regulated electric utilities? How would FERC regulation of these facilities be affected?

As discussed above, if generation is not separated from distribution, an incumbent utility with market power in the wholesale electricity market could discriminate in selling the transmission services needed to transport power to a new marketer's retail customers, thereby depriving the new marketer of wholesale electricity supplies needed to serve its customers at reasonable prices. The ACC could conduct an assessment of generation competition to determine whether some vertical unbundling appears necessary. Easy entry or strong transmission ties could provide sufficient competition to alleviate a need for any unbundling.

If some unbundling is needed to avoid anticompetitive discrimination against marketers, it can take several forms. A structural reform such as divestiture would likely be the strongest form of prevention because it would fully remove the incentives to discriminate against marketers, so long as many of the buyers of the generation are independent entities. By contrast, unbundling through accounting (rather than structural) separations would offer less strong protection against anticompetitive conduct but would be more likely to preserve whatever efficiencies flow from the particular vertical integration in question. Policymakers should consider both the incremental costs of structural (as opposed to accounting) safeguards and the incremental benefits of that approach. Some policymakers have concluded that a non-structural remedy may be inadequate to prevent discrimination or to avoid other exercises of market power in the electric power sector. In general, if an incumbent utility has market power in the wholesale electricity market, we recommend that the ACC consider unbundling through a cost/benefit approach in which the costs of various forms of vertical unbundling are compared to their respective benefits.

9. Will retail electric competition impact reliability? Why or why not?

Commission Concerning Standards of Conduct for Transmission Providers (May 7, 2008), available at http://www.ftc.gov/os/2008/05/V070009comment.pdf; Electric Energy Market Competition Task Force, Report to Congress on Competition in Wholesale and Retail Markets for Electric Energy, supra note 10 (esp. Ch. 4).

17

⁴¹ Organization for Economic Cooperation and Development, "Restructuring Public Utilities for Competition" (2001), *available at* http://www.oecd.org/regreform/sectors/19635977.pdf. See also Comment of the Federal Trade Commission Before the Federal Energy Regulatory

If retail competition is effective in reducing reliance on flat rate pricing, it is likely to enhance reliability by enrolling customers to help balance supply and demand on the power system. DR trims demand peaks and fills in demand troughs, which in turn eases the challenges that grid operators face. Further, retail competition allows marketers to offer improved reliability as a specific service. For example, marketers could offer installation and maintenance of energy storage devices or onsite generators that allow customers to have electric power when the grid is experiencing a blackout or local distribution lines are down. Fully regulated utilities have not generally sought or been allowed to offer individually tailored options outside of onsite renewable generation installations. Approaches to improve reliability proposed by consumer groups may be subject to challenge as violations of the distribution utility's monopoly franchise.⁴²

10. What are the issues relating to balancing area authorities, transmission planning, and control areas which must be addressed as part of a transition to retail electric competition?

As part of its consideration of retail competition, the ACC may wish to encourage Arizona's distribution utilities to broaden the geographic scope of their wholesale dispatch areas. Such a step could result in efficiencies in balancing renewable generation resources and in obtaining economies of massed reserves, as has occurred in other areas of the country. We note in particular the decisions by utilities in Oregon and Nevada to work with the California Independent System Operator. The broadening of geographic dispatch areas could boost retail competition in Arizona by giving retail marketers a broader area (with more opportunities) in which to secure generation and transmission services for their retail customers at attractive prices.

Another issue is how the ACC will address resource adequacy questions under retail competition. Most states with retail competition operate within organized wholesale markets, most of which have adopted some type of capacity market mechanism to make up the revenues that generators lose under the price caps that the organized markets have adopted. The relative merits of capacity markets are beyond the scope of this comment, but reviews of this topic are available.⁴³

⁴² Michael Burr, "Economy of the Small," 151:5 Pub. Util. Fortnightly 20, 24 (May 2013).

⁴³ For example, Brattle Group prepared a review of resource adequacy policy alternatives for ERCOT that included a discussion of capacity markets. *See* "ERCOT Investment Incentives and Resource Adequacy" (June 1, 2012), *available at* http://www.brattle.com/ documents/UploadLibrary/Upload1047.pdf.

11. Among the states that have transitioned to retail electric competition, which model best promotes the public interest for Arizonans? Which model should be avoided?

The retail competition regimes of the various states evolve as conditions change, as regulatory innovations are tested, and as customers become more accustomed to selecting a power supplier that best serves their preferences. At this time, the development of retail electricity competition is probably most advanced in the portion of Texas in which ERCOT operates. The most important reason for this development is that distribution utilities are not assigned to provide POLR service in ERCOT. In part because of this feature, a higher proportion of retail customers in Texas than in other states have switched to buy power from non-utility power marketers. We encourage the ACC to explore the features of the retail competition regime in the ERCOT area.

At the same time, the most pressing issues that Arizona is likely to face initially will differ from those currently faced in Texas. In particular, we encourage the ACC to focus on the issues associated with introducing retail competition that we listed early in Section III of this comment. It will be particularly important to educate customers about retail choice and develop clear, easy, and timely switching procedures, as well as to develop policies that prevent distribution utilities from double charging or otherwise penalizing retail customers who elect to buy from a marketer. The ACC can also help avoid impeding entry by pricing POLR service to follow wholesale power prices closely. If POLR prices are hedged through extensive laddering of procurement contracts (procuring POLR supplies through a portfolio of contracts of varying durations), competition may be ineffective.⁴⁴

Several legacy retail competition rules appear to undermine effective retail competition. For example, we previously discussed systems for recovery of stranded costs that can undermine

⁴⁴ Traditional laddering of POLR service procurement contracts actually represents a regulated bundle of wholesale power plus hedging. Due to both laddering and lags in POLR rate determinations, POLR prices generally will be lower than spot market prices when prices for key fuels are rising, and will be higher than spot prices when prices for key fuels are generally falling. In recent years, prices for natural gas have declined compared to the pre-recession period and relative to other prominent fuels, including coal and oil. This traditional bundling of hedging with wholesale spot market electricity prices for POLR services creates a boom-and-bust cycle for retail marketers if they do not replicate the hedging mandates for POLR service procurement contracts. In response to increasing understanding about the regulatory risk that this imposes on marketers, states such as Pennsylvania are considering reducing the laddering of POLR service procurement contracts. The move to quickly pass through wholesale prices to POLR service customers recognizes that laddering POLR prices adds enough risk to entry that effective retail competition may not develop in a timely fashion and that some retail customers do not prefer this form of bundling.

competition. Some other poor approaches include the inefficient allocation of costs to all power customers, when the benefits flow primarily to POLR customers; inattention to market power or price manipulation in wholesale power markets; and inattention to a few retailers' unfair practices that raise all retailers' marketing costs.

12. How have retail rates been affected in states that have implemented retail electric competition?

In general, as noted above, reference to prices alone is not a reliable way to gauge performance under retail competition, because retail competition opens up opportunities to tailor the customer's choice of power service (including some costlier options that provide additional value) that were not present before. Customers who prefer more or different services will often choose to pay higher per-unit prices for power because they are buying a differentiated (and preferred and more valuable) bundle of services instead of a commodity. Nevertheless, the most recent cross-state study of which we are aware reported that retail competition lowered retail power rates. We have questions, however, about the sensitivity of the reported results to different interpretations of the data used in this study.

14. Is retail electric competition compatible with the Commission's Renewable Energy Standard that requires Arizona's utilities [to] serve at least 15% of their retail loads with renewable energy by 2025?

Several states that have renewable portfolio standard (RPS) requirements also have adopted retail electric choice. One approach to creating compatibility between the two policies is to require each load serving entity (LSE) in the state to satisfy the RPS standard with respect to the load it serves in the state. Administratively, some states have found that a workable system is to accept renewable energy certificates (RECs)⁴⁷ held by an LSE to satisfy the RPS

⁴⁵ Mathew J. Morey and Laurence D. Kirsch, "Retail Rate Impacts of State and Federal Electric Utility Policies," 26:3 Electricity J. 35 (Apr. 2013).

⁴⁶ A particular concern is how states were classified in the study. For example, California was classified as a retail competition state despite the fact that California retail customers generally have not been allowed to choose among alternative retail suppliers for more than a decade. Given a variety of different factors – including the changing costs of inputs used in generation, shifts in the mix of generation types serving different areas, and lags in changing regulated rates – we believe it is difficult to reliably compare rates under different approaches to retail competition.

⁴⁷ RECs sometimes are referred to as "Green Tags," "Renewable Energy Credits," "Renewable Electricity Certificates," or "Tradable Renewable Certificates."

requirements. This approach is appealing because it assures that renewable generation injected into the power system is sufficient to cover the LSE's RPS obligations, while it gives the LSE flexibility in complying with the RPS requirements. For example, an LSE could invest directly in renewable generation (with the right to issue RECs) or could buy RECs from other owners of renewable generation. This trading system appears to have been workable in California, which has the highest RPS requirement, and several states in the PJM regional transmission organization area use RECs in their RPSs.⁴⁸

15. Is retail electric competition compatible with the Commission's Energy Efficiency Standard that requires Arizona's electric utilities to achieve a 22% reduction in retail energy sales by consumption by 2020?

Several states with retail competition regimes also have energy efficiency standards.⁴⁹ There is nothing inherently inconsistent between retail competition and such standards.

16. How should the Commission address net metering rates in a competitive market?

The application of flat rate pricing in the context of net metering compounds the already distortionary effects of such a pricing scheme. Without accurate price signals, customers have no incentive to make long-term investment decisions that reflect the value of these investments in meeting the challenges of balancing demand and supply on the grid. Consequently, we encourage the ACC to let marketers offer prices to customers with DG that reflect the variable value of power from these generators to the power system. A smart meter would provide the most accurate price signals if it showed price adjustments to consumers based both on time and on consumer use of distribution services.

17. What impact will retail electric competition have on resource planning?

As indicated in our response to Question 10, many states with retail choice are located in organized markets that seek to address resource adequacy through a combination of energy sales revenues and capacity payments. Capacity payments were adopted because the caps placed on wholesale electricity bids decreased the revenues that generators receive when generation

_

⁴⁸ PJM presents a matrix showing differences among the rules under which PJM states allow the use of RECs to satisfy RPS requirements. *See* http://www.pjm-eis.com/~/media/pjm-eis/documents/rps-comparison.ashx.

⁴⁹ The U.S. Energy Information Administration (EIA) reports that all but 13 states have either an RPS goal or an RPS requirement. The exceptions include Alaska, Idaho, Nebraska, Wyoming, and most states in the Southeast. EIA, *Today in Energy*, "Most States Have Renewable Portfolio Standards" (Feb. 3, 2012), *available at* http://www.eia.gov/todayinenergy/detail.cfm?id=4850.

reserves are low. Capacity markets provide revenue to make up for the "missing money" associated with bid caps.

The ERCOT area of Texas represents an exception to the system of capacity markets and payments. Rather than employ a capacity market mechanism, ERCOT has relied on energy market revenues alone to stimulate timely generation investments. The Public Utility Commission of Texas is investigating whether additional steps are necessary to support reliability in ERCOT, with considerable attention focused on the degree to which DR should be increased in ERCOT.

18. How will retail electric competition affect public power utilities, cooperatives and federal controlled transmission systems?

Several states with retail competition also have public power utilities, cooperatives, and federally controlled transmission systems. There is nothing inherently incompatible between retail competition and the presence of other types of power entities.

VI. 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. Seesel, Office of the General Counsel, at (202) 326-2702.