

Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform:



Focus on Retail Competition

Report by the Federal Trade Commission Staff
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FEDERAL TRADE COMMISSION

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Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition

Executive Summary

In the 1990's, both the federal government and the states sought to spur competition in electricity generation and retail marketing services; the transmission and distribution of electricity remains, and is expected to remain, regulated. The Federal Energy Regulatory Commission (FERC) has overseen, and continues to regulate, changes at the wholesale level designed to facilitate competitive wholesale sales of electricity generation; some of these changes involve regulating transmission in ways that allow electricity to be transmitted from distant generators. Various states – 24 in all – similarly have decided to move toward competition in electricity supply at the retail level. Using different methods, and working with different time frames, the states developed plans that will eventually allow all customers – from large industrial customers to individual households – to choose their supplier of electricity services. These changes have moved the provision of electricity generation and marketing services in a direction opposite from the traditional system in which vertically integrated monopolists provided all electricity services in their franchised, local geographic area.

In this report, the Commission staff updates the July 2000 Federal Trade Commission Staff Report to examine which features of various state retail electricity programs appear to have resulted in consumer benefits and which have not. In addition, this report highlights certain jurisdictional limitations on the states' authority to design successful retail competition plans and discusses whether there is a need for federal legislative or regulatory action in this regard.

The report responds to the request to update the FTC July 2000 Staff Report made by the Chairman of the Energy and Commerce Committee of the United States House of Representatives, W. J. "Billy" Tauzin, and the Chairman of the Subcommittee on Energy and Air Quality, Joe Barton.

At both the federal and state level, the movement toward competition was done in anticipation of the benefits that competition can bring in comparison to regulation: when competition is effective, it is likely to result in lower prices, higher quality, and greater innovation than takes place under a regulatory regime. Because regulatory reform remains a work in progress, and has transpired during a period in which fuel prices have fluctuated much more than anticipated, it is not possible at this point to report the ultimate effects of retail competition in this industry. This report, therefore, is an interim review of progress to date toward retail electricity competition.

In the FTC July 2000 Staff Report, the Commission staff discussed how best to achieve the very complex task of moving from regulation to competition in this industry. There, the FTC staff provided an analytical framework that federal and state policymakers might use to ensure that consumers and businesses benefit from electricity restructuring. This framework was based on four policy objectives the Commission had previously articulated as applicable. Briefly, they are: (1) to eliminate or reduce substantial and durable horizontal market power in electricity generation markets;

(2) to remove incentives for vertically integrated firms to engage in undue discrimination and cross-subsidization; (3) to foster accurate, non-deceptive information disclosure to customers about price and service offerings; and (4) to promote uniform disclosure of the prices and other relevant attributes of offers to customers.

To prepare this report, the Commission published a Federal Register notice seeking comments on a variety of issues related to the different state plans designed to introduce competition into retail electricity markets. In addition, FTC staff researched and analyzed the features of a sampling of state restructuring plans in states that have introduced, or are about to introduce, retail competition, including: Arizona, California, Illinois, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. These profiles are presented in Appendix A.

Some overall points can be made about how restructuring has proceeded at the state level so far:

- **The states that have moved toward competition in electricity generation and retail marketing are in a *transition period*, during which retail price regulation will continue as some elements of competition are introduced. No state has completed the transition period.** The states have dual goals: to restructure markets to begin to bring the benefits of competition to consumers and, at the same time, to ensure that consumers receive reliable service at rates not higher -- and often lower -- than provided under regulation. States already moving toward retail competition

have decided that, to protect consumers while introducing competition, there should be a transition period during which some elements of regulation remain. The length of this transition period is typically determined by how long states have allowed utilities to recover previously-incurred generation investments that would be stranded under competition.

- **Most policy choices that confront states during this transition period involve tradeoffs, with each option presenting potential costs and benefits.** The work of moving from a regulatory regime to competition is immensely complex. There are no easy answers. To achieve the dual goals identified above, states must make policy judgments about how best to manage the various tradeoffs that are necessary. The use of additional pilot programs to test various tradeoffs may well assist states in these matters.
- **Given that states are in a transition phase that represents a hybrid of regulation and competition, many of the expected benefits of competition have not yet emerged.** The decision of most states to set fixed retail prices for customers who remain with the incumbent utility, coupled with very substantial increases in wholesale electricity prices, has slowed new retail entry that could increase competition and provide customers with more timely and accurate price information. These decisions have also jeopardized the financial stability of some incumbent utilities that are serving customers that

have not chosen an alternative supplier.

- **Nothing that has happened so far, however, indicates that competition -- once the transition period is completed -- will not produce additional benefits to electricity customers.** Rather, the task at hand is to identify, to the extent possible, which policy elements are likely to lead to competitive markets and whether current transition policies need modification or elimination.

This report identifies certain policy elements that have operated most successfully in states' transitional plans or that, by contrast, appear relatively unsuccessful so far. For many policy choices, however, it is still too early to determine whether they have been, or ultimately will be, beneficial to consumers. The following outlines the main conclusions of the report. A discussion of the comments on these topics and the reasoning underlying these conclusions is contained in the relevant chapters.

Competitive Wholesale Markets Are Important To Achieving Effective Competition In Retail Markets

- For all of the expected benefits of retail competition to be realized, it is imperative that wholesale markets be competitive. Effective wholesale and retail competition will mutually reinforce each other, thus combining to bring benefits to retail customers. If more distant generators cannot compete effectively with local generators, or electricity marketers cannot obtain generation services, because of problems obtaining transmission service, and there are entry barriers to building new generation, local generators may be able to exercise market power.
- As wholesale and retail markets become regional, governing policies and jurisdictional approaches also must move in that direction for wholesale and retail competition to be successful.
- Independent and nondiscriminatory, open access to the transmission grid is essential for effective wholesale competition. Independent operation of the transmission grid not only ensures nondiscriminatory service and rate treatment, but also helps to ensure impartial interconnection rules for electricity generators to connect to the transmission grid.
- In states that have implemented retail competition, transmission services should be priced the same, regardless of whether transmission services are bundled with generation services in wholesale or retail sales or whether transmission services are sold separately in wholesale or retail sales. Providers of standard offer service should not have preferential access to the transmission grid in markets with retail competition. Transmission pricing should include a congestion component. Locational marginal pricing is an appropriate approach for pricing transmission congestion in an efficient manner unless an alternative is shown to be superior.
- A regional entity with state involvement, or FERC, should have transmission siting authority. The entity would have the

power of eminent domain. Such an entity could be the RTO that will manage the transmission grid in any one region, provided its scope is broad enough and it is subject to state involvement and FERC oversight.

- States generally have sufficient authority over generation siting; however, with the emergence of retail competition and the regional scope of wholesale electricity markets, states should eliminate “need” requirements for generation siting. In addition, uniform procedures across states governing how new generation capacity interconnects with the transmission grid may ease the addition of new generation capacity by reducing interconnection costs.
- Interconnection standards and retail tariffs relevant for distributed resources (including distributed generation) should be streamlined and made as uniform as practicable on a regional or national basis.
- States may wish to evaluate whether policies that govern generation reserves in electricity markets may inadvertently be hampering competitive retail and wholesale markets.

Policies Are Needed In Retail and Wholesale Markets That Will Increase Demand-Side Responsiveness

- So far, neither retail nor wholesale markets for electricity generation encourage effective demand-side responses. Generally, retail customers do not have price information and time-

sensitive rates that reflect the changing price of obtaining electricity at various times of the day and over the course of the year. Prices are likely to be lower and reliability is likely to improve if more customers have time-sensitive rates and timely and accurate price information. With these things, customers can make better consumption and investment decisions that determine an efficient market equilibrium for electricity services. Increasing the price sensitivity of demand also will help to constrain existing or potential market power in generation. This is true because a price increase will be less profitable for generators if it is passed through and retail buyers respond by reducing their consumption by a significant amount.

- Real-time meters, which use two-way electronic linkages between customers and suppliers to allow the retail supplier to charge prices that echo changes in wholesale prices, provide retail customers with instantaneous information about prices, and record not only the amount of electricity used, but when it is used (especially for industrial and large commercial customers). State policies that eliminate barriers that limit the ability or incentive of electricity suppliers to offer variable pricing through the use of real-time meters are likely to increase the demand-side response. Real-time pricing will help alleviate market power concerns and reduce the fluctuations in quantity demanded. Seasonal and time-of-day pricing differences also will increase the demand-side response, but not as effectively as real-time metering

and pricing.

- In conjunction with variable pricing for generation services, retail suppliers should be permitted to offer competitive metering and billing services to their customers. Such competition would encourage the development of innovative new services (*e.g.*, real-time pricing).
- At present, in most organized wholesale spot markets, retail electricity suppliers bid only quantities, not prices. This characteristic should be modified to permit buyers to bid a variety of combinations of price and quantity so that wholesale prices are not established solely by sellers' supply offers. Because wholesale supplier demand is derived from retail demand levels, this policy will be most effective when retail customers are provided accurate and timely price information and real-time rates so that they can adjust their consumption according to price changes. These varying levels of retail demand can then be passed on to retail suppliers so that they can participate in wholesale spot markets in a more effective manner. Currently, most wholesale spot markets do not allow retail customers to participate directly as suppliers at all.

State Policies Should Be Designed to Minimize Entry Barriers Into Retail Competition: Policies that Set the Price of Standard Offer Service for Non-Choosing Customers Have A Substantial Effect on the Entry of New Retail Suppliers

- Effective retail competition, and the

subsequent consumer benefits of retail competition, are much more likely with actual entry. State policies that eliminate barriers to entry to allow for the long-run, efficient entry of entities to compete with the incumbent will assist the development of retail electricity markets. There are a number of entry barriers that impede the efficient entry of alternative retail electricity suppliers.

- Most states have required the existing distribution utility to continue to offer service ("standard offer service") at fixed, regulated rates to customers that do not choose a new supplier or whose supplier exits the market. Often the duration of this service is coterminous with the time period during which the state allows the utility to recover its stranded costs (those generation-related costs that are uneconomic in a competitive environment). In some states, the price for standard offer service has become a retail entry barrier.
- States should design standard offer service policies that provide entrants with sufficient incentives to offer service and do not, unintentionally, create a barrier to entry. Ensuring that standard offer service providers can pass on changes in fuel costs and wholesale electricity prices will aid this goal.
- Initial rate reductions for standard offer service, which are not based on cost reductions, tend to distort entry decisions and reduce incentives for retail customers to search for alternative suppliers. If rate reductions are applied to total rates, this

effect may be severe. Rate reductions for standard offer service that are financed through deferred charges paid by all distribution customers may result in below-cost prices for standard offer service and, consequently, reduce incentives of alternative service providers to enter.

- States may wish to implement pilot programs that test alternatives to standard offer service, in light of the difficulties in establishing an appropriate standard offer price and the dampening effects that inappropriately-priced standard offer service can have on incentives for suppliers to enter retail electricity markets.
- Requiring incumbent utilities to provide generation capacity to retail suppliers at prices that reflect the value of generation assets as determined administratively when assessing the level of the utility's stranded costs, may mask whether the underlying market is conducive to support retail competition. As a transition mechanism while stranded costs are being recovered, however, these programs may allow entrants to start serving customers while they make longer-term supply arrangements.

State Consumer Protection Policies Can Affect Both Consumers and the Likelihood of New Entry to Increase Competition

- States have adopted measures to protect consumers who are able to choose among competing suppliers in retail electricity markets. A key policy goal is how best to

meet important consumer protection objectives while minimizing compliance requirements for competing energy suppliers. Avoiding unnecessary state-imposed costs and burdens will accelerate the evolution of competitive retail electric power markets.

- Initially, a diversity of regulatory programs across states can help to identify the best approaches to protecting consumers while imposing minimal burdens on suppliers. Subsequently, however, significant cost reductions to electricity suppliers may follow from uniform supplier licensing and customer switching rules across the states. To that end, industry members have been working to develop model uniform rules. If the states, in turn, implement consistent regulatory frameworks, such rules can lead to significant benefits for market participants and consumers.
- Consumers' choices will be made most efficiently if consumers are exposed to accurate, timely and comparable information about retail suppliers of electricity. Enforcement of truth-in-advertising laws will help ensure that suppliers make truthful, nondeceptive, and substantiated advertising claims in the new retail marketplace.
- Standardized labeling of retail electricity products and services may be beneficial to consumers and competing electricity suppliers, as long as it allows suppliers to provide additional information as they begin to offer innovative services and products to customers. Whether required

by differing state rules or uniform rules across the country, mandatory disclosures to consumers can help ensure that consumers receive, before purchase, accurate information important to their purchasing decisions in a newly restructured market. Excessive disclosure requirements, however, may discourage the provision of information, particularly in advertising. Uniform rules can reduce supplier labeling costs, but they reduce the ability of states to tailor the rules to their own policy needs.

- Policies are needed to prohibit vertically integrated utilities from anticompetitively (1) shifting costs from their unregulated generation and retail operations to their

regulated distribution and default service operations, and (2) exercising discrimination in the provision to retail suppliers of inputs over which the utility has a monopoly.

- Consumer education programs that provide general information to increase consumer awareness about retail competition, as well as “nuts and bolts” information to allow consumers to shop effectively and select their supplier, will help to ensure that consumers have the information they need to participate effectively in competitive retail electricity markets.

CHAPTER I SETTING THE STAGE

States face a myriad of policy choices about how to implement retail electricity competition programs. The policy options generally balance measures to encourage the introduction of market forces into the retail sale of electricity generation supplies with measures to ensure that customers are still able to obtain essential electricity services at just and reasonable prices.¹ The available choices are influenced by the fact that in most states electricity has been traditionally *generated, transmitted, and distributed* to customers by state-franchised, vertically integrated monopoly utilities. Part of the challenge is to make a successful transition to restructured electricity generation markets that will remain dependent on regulated entities for transmission and distribution. Another part of the challenge is to ensure adequate information for consumers who are choosing among electricity suppliers. During this transition period, states have generally determined to keep some aspects of retail price regulation as they introduce certain elements of competition.

This chapter describes briefly both the technological changes that have facilitated competition among retail electricity suppliers and the expected benefits of competition. This background sets the stage for a discussion of the basic policy issues that states face as they decide whether and, if so, how to implement retail electricity competition programs. Appendix A contains profiles of a sampling of representative states that have either introduced, or are about to introduce, retail competition. These states include: Arizona, California, Illinois, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Texas. Not

all of these states have implemented retail electricity competition in the same manner; rather this chapter refers to the policy choices most typically made by states that have begun electricity restructuring. A discussion of the basic features of wholesale electricity markets follows the summary of retail issues.

A. Underlying Technological and Regulatory Changes in the Electricity Industry

As part of the New Deal, Congress enacted the Federal Power Act and the Public Utility Holding Company Act,² which relied on regulation, not competition, to govern the electric power industry. At the time, the three physical elements of the electric power industry (generation, transmission, and distribution) were generally seen as natural monopolies that could be provided more efficiently by regulated, vertically-integrated suppliers, each being the sole supplier in its franchised territory. Also, because of the importance of electricity to all segments of the economy, it was thought that service reliability was very important and that this goal was better achieved within a regulated environment. The perceived need for regulation was heightened because electricity cannot be economically stored in large quantities and consumption and production must be balanced continuously and instantaneously to maintain service reliability.

As a result of this mixture of technical and

¹See generally, NARUC at 1.

²The Federal Power Act (Part II) (cited as the Public Utility Act of 1935), ch. 687, 49 Stat. 847, was enacted in 1935 and is now codified at 16 U.S.C. § 824 (1994, Supp. 1999); Public Utility Holding Company Act, 15 U.S.C. § 79a et. seq.

economic relationships and regulatory choices, the electricity industry has been dominated by state-franchised utilities that performed all three functions of providing electricity to retail customers (*i.e.*, residential, commercial, and industrial) -- these utilities *generated* electricity, *transmitted* it over long distance lines at high voltages, and *distributed* it at useable voltage levels to retail customers. In an era of retail competition, there is a fourth function that derives from separating the distribution function into two components: physical distribution of electricity and *retailing* or *marketing* of electricity to customers. These vertically integrated utilities were largely self-sufficient -- they typically generated enough electricity to satisfy customer demand in their exclusive geographic territory.

In most areas, generation is by far the largest component of the industry in terms of investment and revenues. Distribution is the next largest component, and transmission is the smallest component. In some rural areas, distribution investments may surpass generation investments in light of a dispersed customer base. Often rural areas are served by consumer-owned cooperative electric utilities. These rural cooperatives, along with municipal or government-owned electric utilities, account for approximately 20 percent of the nation's electricity generation capacity. They have generally been exempt from the move to retail competition.

During most of the twentieth century, as a result of increasing economies of scale in coal-fired and nuclear generators, coupled with limited transmission capacity, many customer areas could be efficiently served by only a few generating facilities. As a result, it was widely believed that generation was a natural

monopoly. Technological improvements in electricity generation and transmission, however, have largely negated the reasoning underlying the treatment of generation services as a natural monopoly. The most important technological advance has been the development of the natural gas combustion turbine and combined-cycle generators. Efficient-scale electricity generation plants that use this technology may be less than one-quarter the size of plants fueled by coal or of nuclear plants, thus changing the economics of constructing and operating large, centralized generating plants. Recently, micro-turbines, reflecting additional declines in minimum efficient scale for generators, have entered the marketplace and now provide customers with broader options for onsite or self-generation.³

In addition to technological changes, several policy shocks hit the industry during the 1970s and 1980s. The litany of disruptions is as familiar as "yesterday's" headlines: the OPEC energy crisis, nuclear safety, acid rain, blackouts and brownouts, and deregulation of natural gas prices. These shocks both motivated and facilitated the restructuring of the industry that is now taking place. In addition, many states were concerned that their electricity prices were above the national average, thus potentially hampering their economic development efforts. See Table 1 *infra*.

The U.S. regulatory system remained largely unchanged until the 1990s, despite the new technologies, shocks, and disparities in prices between states. In many ways, the U.S. electric

³See FTC Staff Report: Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform (July 2000) at 2 (FTC July 2000 Staff Report).

power industry followed restructuring developments in the United Kingdom. In 1989-1990, the United Kingdom moved from a nationalized, vertically integrated monopoly to a privatized and vertically unbundled industry committed to opening up competition gradually even at the retail level for both commercial and residential customers.⁴

An important problem with the U.K.'s new electric system proved to be market power in generation. Initially, generation assets remained highly concentrated. This resulted in the exercise of market power at the generation level. Subsequently, the problem was addressed, in part, by requiring that the leading generating firms divest some of their facilities, and by new entry.

The first major move toward regulatory reform and restructuring of the U.S. electric power industry was passage of the 1992 Energy Policy Act (EPAct). This initiated the process of

opening access to the transmission grid and encouraging independent operation of the transmission grid. These measures were designed to increase competition at the wholesale level, where electricity is bought and sold between generators, electricity traders, and retail sellers of electricity. EPAct built on the policies in the Public Utility Regulatory Policy Act of 1978 (PURPA), which demonstrated that independently-owned generators could be integrated successfully into the transmission system without impairing system reliability.

In 1996, California became the first state to contemplate retail competition whereby end users of electricity would be allowed to choose among retail electricity suppliers. Most of the states that have implemented retail competition programs since then had electricity rates above the national average as shown in Table 1.

Moreover, when wholesale prices fell in the mid-1990s due to surplus generation capacity and lower fuel costs, as suggested by Table 2, large industrial customers in high-cost states wanted access to those wholesale prices and markets. States that moved toward retail competition were motivated to do so in part so that customers could have access to competitive wholesale market prices.

⁴ Many other countries have undertaken electricity restructuring efforts in addition to the U.K. Most of these efforts, however, have concentrated on issues surrounding privatization, as well as unbundling, and have not dealt with the stranded cost and transition period issues facing U.S. policymakers.

Table 1. Retail Electric Power Prices – 1988 to 2000

Average Annual Revenue (in cents, not adjusted for inflation) per kilowatt-hour 1988 TO 2000													
Area	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
U.S.	6.4	6.5	6.6	6.7	6.8	6.9	6.9	6.9	6.9	6.9	6.7	6.6	6.7
AZ	7.4	7.5	7.8	7.8	8.1	8.2	7.9	7.6	7.5	7.4	7.3	7.2	7.2
CA	8	8.5	8.8	9.4	9.7	9.7	9.8	9.9	9.5	9.5	9	9.2	8.4
IL	7.3	7.5	7.5	7.6	7.7	7.8	7.4	7.7	7.7	7.7	7.5	7	6.6
ME	6.7	7	7.6	8.6	9.1	9.1	9.6	9.5	9.5	9.5	9.8	9.8	NA
MD	5.8	6	6.3	6.8	6.8	7	7	7.1	7	7	7	7	6.8
MA	7.8	8.3	8.8	9.5	9.7	10	10	10.1	10.1	10.5	9.6	9.1	9.5
MI	6.6	6.8	7.1	7.2	7.2	7.1	7.1	7.1	7.1	7	7.1	7.1	7.1
NJ	8.5	8.8	9.1	9.5	9.5	10	10.1	10.4	10.5	10.5	10.2	10	9.1
NY	8.5	8.9	9.4	9.6	10.2	10.7	10.9	11.1	11.1	11.1	10.7	10.4	11.2
OH	5.7	5.7	5.9	6.1	6.1	6.2	6.2	6.2	6.3	6.3	6.4	6.4	6.5
PA	7.1	7.4	7.7	8	8	7.9	7.9	7.9	8	8	7.9	7.4	6.6
TX	5.6	5.7	5.8	6.1	6.2	6.4	6.4	6.1	6.2	6.1	6.1	6	

Notes:

1. Data for 2000 are preliminary.
2. Some of the variation in annual state data may be due to relative shifts in use of electric power among customer classes, changes in fuel costs, changes in hydrological conditions, entry and exit of generators, and changes in importance of contracts with qualifying facilities under PURPA.

Source: Energy Information Administration

Table 2. Annual Fuel Cost Index

Annual Fuel Cost Index, 1982 = 100												
Fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Coal	97.5	97.2	95	96.1	96.7	95	94.5	96.3	93.6	90.7	87.9	
Natural Gas	80.4	79.1	80.6	84.7	78.8	66.6	91.2	102	83.9	91.2	151	
Fuel Oil	73.5	65.2	61.6	59.8	55.9	56.6	69.3	64.3	47.6	56.5	92.8	

Notes:

1. Data for 2000 are preliminary.
2. Fuel oil is light fuel oil (No. 2 and No. 6).

Source: Bureau of Labor Statistics, Producer Price Index.

To date, states representing over 50% of the U.S. population have established target dates for initiating retail competition in electricity generation and marketing, although recently several states have delayed implementation of retail competition.

B. Competition, in General, Tends to Produce Price and Nonprice Benefits for Customers

The comments outlined a variety of expected

price and non-price benefits for customers that have motivated many states to move toward both retail competition and increased competition at the wholesale level. The primary reason cited by many state commissions, consumer advocates, and market participants for allowing customers to choose their electricity supplier was the expectation that increased competition would help to drive down high retail rates in the relevant states toward the

national average.⁵ This would parallel “[e]xperience in a variety of other deregulated industries [which] shows that competition and deregulation tend to produce price reductions of between 10 percent and 25 percent, along with service quality improvements whose value to consumers sometimes exceeds the value of the price reductions.”⁶

Suppliers noted that competition is more effective than regulation in controlling the costs of supplying electricity.⁷ Competition provides stronger profit incentives for the efficient deployment of capital for generation investments and eliminates the guarantee that regulated firms have under traditional rate-base regulation to recover their costs to procure electricity, regardless of its price. One comment suggested that one of the expected long-term benefits would be that only efficient electricity plants would be developed because the developer would no longer be guaranteed recovery (through ratepayer rates) of its costs and that, as a result, uneconomic costs would be eliminated from generation rates.⁸ Others agreed that deregulation and competition tend to produce prices that are more accurate signals of resource availability.⁹ Retail competition also can improve efficiency by providing better price

signals and incentives to customers to make investments in technologies that shift demand for electricity to off-peak periods when it is generally less expensive to produce electricity. This is particularly important in the electricity industry where average generation costs (and related wholesale prices) to serve peak demand periods are often much higher than those during off-peak periods.

The prospect that new gas-fired generation induced by increased wholesale and retail competition would produce electricity at prices below average system costs (in light of inexpensive natural gas prevailing at the time) also fostered expectations that retail competition would bring prices down.¹⁰ In addition, electricity prices resulting from a competitive generation market are expected to be lower than they would be under traditional regulation or lower in terms of inflation-adjusted prices (even if nominal prices increase under retail competition).¹¹ Commenters suggested that customers would obtain lower prices gradually over time, and it was recognized that lower prices would not instantly take hold.¹²

Nonprice benefits also were expected. For example, many market participants suggested that retail competition could provide an environment in which competitive suppliers can offer service innovations (*e.g.*, “green” power, risk management services to guard against fuel price volatility, and energy efficient customer equipment), as well as price reductions, to all

⁵See, *e.g.*, Allegheny at 2, ME PUC at 3, MI PSC at 1, NJ Ratepayer at 1, PA OCA at 2, PA PUC at 2.

⁶Mercatus at 1, *see also* PA PUC at 2.

⁷Enron at 2, Exelon at 6, ECA at 2-3 (suggested that changes in wholesale markets and a drive toward market-based pricing for generation would be the most significant benefits of competition).

⁸ME PA at 5.

⁹Mercatus at 2.

¹⁰PA OCA at 3.

¹¹Exelon at 6, NJ Ratepayer at 1, Shell at 3.

¹²ME PUC at 3, NEMA at 2, NYPSC at 2.

customer classes.¹³ Generally, regulated rate structures do not permit utilities to profit from offering these innovative services and, thus, they have little incentive to develop and offer them. Still others suggested that retail competition could improve a state's industrial economy by improving the relative costs of operating in the state.¹⁴

It is generally believed that benefits will be available to all customer classes (*i.e.*, industrial, commercial, and residential), but most comments suggested that large customers will receive benefits earlier than residential customers.¹⁵ To ensure that rates paid by residential customers would decline, many states, including California, Massachusetts, New Jersey, and Pennsylvania relied on regulation to provide rate reductions for residential customers simultaneously with the start of retail competition.¹⁶

Commenters suggested that benefits would accrue to customers in urban, suburban, and rural areas.¹⁷ Many states noted, however, that their plans provide optional or slower phase-in for customers served by rural cooperatives.¹⁸ Indeed, one comment suggested that the size of

¹³Cleco at 1, Enron at 2, Exelon at 7, NYPSC at 2, Shell at 3.

¹⁴*See, e.g.*, Allegheny at 2, ECA at 2, NYPSC at 2.

¹⁵*See, e.g.*, ICC at 3, MI PSC at 2, NYPSC at 2, PA OCA at 4, PA PUC at 4.

¹⁶For a discussion of the effect of mandatory rate reductions on entry, *see* Chapter IV. *See, also*, Section C.6 *infra*.

¹⁷*See, e.g.*, ICC at 5, PA OCA at 4.

¹⁸*See, e.g.*, ICC at 3, MI PSC at 1-2.

the distribution company affects competitive benefits because the cost of entry for alternative generation service providers is generally the same per utility regardless of the size of the customer base. Thus, rural cooperatives, with comparatively small customer bases, may be less attractive for a new entrant.¹⁹

It also is important to note that the benefits of retail competition and wholesale competition are likely to be mutually reinforcing. Neither benefits customers as much when either is implemented alone. In other words, to obtain the full potential customer benefits of retail competition, it also will be necessary for wholesale markets to be competitive.

The following section answers commonly asked questions about how the transition from regulation to competition at the retail level takes place.

C. Retail Competition Policy Issues

1. *What is meant by retail electricity competition programs?* Retail electricity competition programs allow electricity customers (residential, commercial business, and industrial) to choose their retail electricity generation supplier (*e.g.*, an independent power producer, an electricity marketer, a neighboring utility now offering services in the customer's area, or an unregulated generation affiliate of the franchised utility), rather than automatically purchasing generation supply from the state-franchised utility operating in the customer's geographic region. The franchised utility will still distribute the electricity using its transmission and distribution facilities. In some states, metering

¹⁹PA OCA at 4.

and billing are subject to competition, while in others these services are combined with distribution services. Wholesale electricity markets, by contrast, are largely defined as trades of generation supply that occur over transmission lines between electricity generators, electricity traders, and entities that sell that electricity to end-use customers (whether they are traditional utilities or marketers).

2. *How is competition introduced into the retail sale of electricity?* States have typically enacted restructuring legislation that directs the state public utility commission to implement competition through a series of regulatory proceedings. In a small number of states, the state commission already has sufficient authority to order utilities to restructure without additional state legislation. Each state commission usually initiates a regulatory proceeding on a utility-by-utility basis to determine how retail competition will work in each utility's service territory. At the conclusion of these proceedings, the state commission and the utility frequently enter into a settlement agreement that governs how retail competition will be introduced.

3. *Which customers will be able to choose their electricity supplier?* Retail electricity competition programs generally will allow customers in all classes (*i.e.*, residential, commercial, and industrial) to choose their electricity supplier, although not necessarily in the same time frame. Some states have phased-in programs so that industrial and commercial customers are generally able to choose first, followed by residential customers. State restructuring legislation often exempts municipal utilities and rural cooperatives from offering their customers an option to choose their electricity supplier.

4. *How is competition introduced if the utility still provides regulated distribution and transmission services?* Before a state permits retail customers to choose their electricity supplier, it unbundles or separates the franchised utility into separate parts responsible for different functions. The first step is to unbundle or separate the utility's generation assets from its assets used to provide transmission and distribution services. States have either required the utility to divest generation assets to a third party (*e.g.*, Maine) or to functionally unbundle (*e.g.*, Pennsylvania required utilities to establish unregulated affiliates in which to place their competitive generation services). If the latter route is chosen, the state commission promulgates a "code of conduct" that governs the relationship between the regulated transmission and distribution company and the unregulated generation affiliate. States generally have unbundled each utility on a utility-by-utility basis because of varying local circumstances. The company that remains after generation assets are removed is labeled a "distribution utility."

5. *Once a utility is unbundled, how are prices set for generation, transmission, and distribution services?* In most states, the state commission initiates a regulatory proceeding to determine the incumbent utility's costs for generation, transmission, distribution, and possibly for metering and billing (if these two services are subject to competition). These costs are then expressed on a per kilowatt/hour (kWh) basis on customer bills. If a customer chooses an alternative electricity supplier, the distribution utility no longer charges the customer the unbundled cost of generation. Instead, the customer is charged by the alternative supplier for generation services. The unbundled cost of generation is often termed the "shopping credit"

or “price to beat.” In other words, customers are more likely to switch to alternative suppliers that “beat the price” (*i.e.*, offer generation services for less than the unbundled generation cost) of the distribution utility that often provides service to customers who have not chosen an alternative supplier (*see* question 6).

6. *What happens to customers who do not choose an alternative supplier?* Most states have established a “standard offer service” that supplies customers who do not select an alternative service provider or supplies those customers whose competitive supplier has stopped offering service. Often, but not always, the standard offer service is provided by the franchised distribution utility in the area. The price for standard offer service is often fixed at (or below) the regulated rate in place before the onset of retail competition. The standard offer price and the duration of the transition period during which the standard offer service is mandated often are related to terms of the settlement agreement between the state commission and the utility regarding recovery of the utility’s stranded costs (*see* question 7). Most states have implemented standard offer service as a consumer protection measure during the transition to a fully competitive retail market.

7. *What are a utility’s stranded costs, and how are they recovered?* Stranded costs are those generation costs authorized under regulation that are not expected to be recovered as a result of the decision to implement retail competition. The theory is that in a competitive environment, the utility’s expected revenue stream from its generation assets may be smaller than the revenue stream under regulation. Stranded costs, or uneconomic costs, can arise from circumstances such as idled generation capacity,

nuclear decommissioning costs, or above-market, long-term contracts required by PURPA. States have determined the value of each utility’s assets and its potential stranded costs through either an administrative proceeding, or, in the case of divestiture, market valuations. In addition, states have determined the length of time over which stranded costs are to be recovered from customers. For example, Pennsylvania has generally approved a 10-year stranded cost recovery period. During that period, stranded costs are typically assessed on all customer bills as a per kWh distribution charge. Some states have revised their stranded cost estimates (through a “true-up” proceeding) based on actual experience. Where economic growth and other factors result in more utilization of a utility’s generation assets than projected under regulation, true-ups can result in reductions in historic costs that are classified as stranded.

8. *Do alternative suppliers have to be licensed to provide services to customers?* Yes. Supplier licensing requirements are designed to ensure that alternative electricity suppliers have sufficient technical, financial, and managerial resources and abilities to provide reliable service to retail customers. States generally balance the rigor of the standards to protect customers with the increase in supplier cost and customer prices that may be associated with compliance with the standards.

9. *How do customers switch suppliers?* Generally, states have designed procedures to allow customers to switch electricity suppliers. In doing so, states often have to balance the interest in protecting consumers from harmful practices such as slamming (*i.e.*, the unauthorized switching a customer’s electricity supplier) with

the interest in creating a regulatory framework that minimizes unnecessary burdens on retail suppliers. Slamming and cramming (*i.e.*, the placement of unauthorized charges on electricity bills) created a significant problem for many consumers during the period of telephone restructuring, and thus also have received attention during electricity restructuring.

10. *In a competitive environment, how are public benefit programs handled?* Public benefit programs include low income assistance, funding for renewable electricity research and development, energy efficiency, or demand side management programs. In a competitive environment, some states have required the distribution utility to provide these services and to assess all customers through monthly surcharges. In other states, general tax revenues are used to support these programs.

11. *Can retail customers aggregate their demand?* Some states have adopted policies to allow customers to aggregate their demand to bring the expected benefits of buying electricity to smaller customers and to reduce customer acquisition costs for alternative electricity suppliers (*i.e.*, new entrants).

12. *What information are customers given so that they can shop for the best supplier?* Some states have adopted uniform labeling requirements for the disclosure of price, associated contract terms, fuel source, and environmental characteristics of the electricity that is sold. The purpose of uniform labels is to ensure the ability of consumers to make apples-to-apples comparisons and avoid the situation where consumers are left to decipher an offer that claims a certain ‘percentage off’ the distribution company’s standard offer price. Many states

have balanced this goal with the undesirable impact of excessive standardization of labeling requirements that may unduly restrict the diversity of alternative services offered to consumers.

13. *What other issues must state policy makers examine before implementing a retail choice program?* Many states have addressed environmental protection, tax policy, and labor issues as part of retail restructuring. These issues are not addressed in this report.

D. Wholesale Market Issues

1. *What features of wholesale electricity markets affect retail competition programs?* Two wholesale electricity market features have particularly important implications for retail competition programs. The first is the set of price and access conditions for transmission services that wholesale customers pay to receive generation from distant sources. These charges are similar to highway tolls. The second is the operation of wholesale markets for sales in which generators, electricity marketers, distribution utilities, and others buy and sell wholesale electricity.

Wholesale Transmission Issues

2. *How are transmission services priced?* The Federal Energy Regulatory Commission (FERC) regulates the prices charged by transmission owners and operators for the use of their portions of the interstate transmission grid for wholesale sales of electricity. States, rather than FERC, regulate the price of transmission if the transmission is bundled with generation services in a sale to an end-use customer (*i.e.*, a retail sale). Under cost-of-service regulation, FERC generally requires transmission owners to base

their prices on the original total cost of their transmission assets. Traditionally, users have paid for transmission service along a “contract path” from the seller to the buyer. However, the actual transmission flows of electricity from a generator to a distribution company do not generally follow the shortest route between the source and the destination, much less the contract path for the transaction. Rather, electricity flows along the paths of least resistance on the transmission grid and may cause congestion on portions of the transmission grid that are not on the contract path. Hence, it can be difficult to compensate transmission owners accurately for both intended and unintended use of transmission facilities using conventional transmission rates. (See question 4 below.)

3. *Because much of the transmission grid is owned and controlled by utilities that also own generation assets, how do alternative electricity suppliers obtain access to the transmission grid?* FERC began opening up the interstate transmission grid to wholesale suppliers on a broad scale by issuing Orders 888 and 889 in 1996. FERC’s main objective in these orders was to ensure that all users would have open access to the grid on terms comparable to those on which the grid was used by the transmission owners.

In response to Orders 888 and 889, utilities in several regions of the country (e.g., California, New York, New England, and the Mid-Atlantic states) established independent system operators (ISOs) that control and operate the interstate transmission grid in those regions. Some states, as part of their restructuring programs, have required utilities to place their transmission assets under independent control to ensure nondiscriminatory access to the transmission

grid.

In December 1999, FERC encouraged all investor-owned utilities to place their transmission assets under control of a regional transmission organization (RTO) by December 15, 2001. FERC undertook this action in light of concerns that Orders 888 and 889 were insufficient to ensure that utilities would not discriminate against independent electricity suppliers. This process is ongoing. FERC has required that the RTOs be independent of all electricity suppliers. Each RTO is to operate the transmission grid in a specific region on a nondiscriminatory basis so that all electricity suppliers have comparable access. The current ISOs can be seen as predecessors to the four region-wide RTOs that FERC recently adopted as its objective for the Northeastern, Southeastern, Midwestern, and Western regions of the interstate transmission grid.

Wholesale Market Operation

4. *What is FERC’s role in regulating prices among traders of wholesale electricity?* FERC has authority to regulate prices for wholesale electricity in interstate commerce using a “just and reasonable” standard. FERC’s jurisdiction extends to most of the nation’s wholesale electricity trades, with the exception of most of Texas. The transmission grid covering most of Texas is not interconnected with the rest of the States (except by limited ties) and operates under state jurisdiction. In most areas of the country, FERC allows generators to sell at market-based rates if FERC finds that competition is sufficient to make market-based rates “just and reasonable.”

To determine whether to approve market-based

rates for a generator, FERC applies a "hub and spoke" test. Under this methodology, FERC examines the generating company's share of total capacity that is directly connected to the local demand or load area (the hub) or that can reach the hub using the generating company's transmission system (if it has one). FERC separately examines the generating company's shares in each load area connected to the initial load area (the spokes). Generally, if the generator's share is less than the 20 percent threshold established by FERC in all of these areas, market-based rates will be permitted. Concern has been expressed that this methodology is antiquated and prone to errors. It focuses solely on the share of the individual seller and not market concentration in properly-defined markets. It takes little or no account of the important factors that determine the scope of electricity markets, such as physical limitations on market size including transmission constraints, electricity prices, generating costs, transmission rates, and varying supply and demand conditions over time. In light of these concerns, FERC has considered whether remedial measures, such as price mitigation measures or temporary price caps on wholesale market trades, are necessary to ensure that rates for sales of wholesale electricity are "just and reasonable."²⁰

5. *How do retail electricity suppliers obtain generation services so that they can supply electricity to their customers?* Suppliers that serve retail customers generally use a mix of methods to

obtain enough generation to provide electricity to their customers. They can either generate the electric power themselves, purchase it through a mix of short and long-term contracts, or purchase it on the spot market. In addition, many suppliers use financial contracts to hedge against the risk of volatile wholesale prices. Most demand is met from supplies obtained by ownership of generators or through longer-term contractual arrangements between generators and electricity retailers. California was unique in requiring electricity suppliers to rely primarily on the spot market to meet demand. During 2001, most of California's electricity demand has shifted from spot market transactions to longer-term contracts between suppliers and retailers.

6. *What products are traded in wholesale spot markets?* Restructured wholesale electricity markets generally have been established to mirror how electricity was dispatched under a regulatory regime. Prior to restructuring, wholesale markets were typically comprised of several generation facilities that had differing production costs due to differing design and fuel requirements. During any given demand period, electricity was dispatched from generation plants in the order of their marginal costs, from low to high. Visually what this means is that the wholesale supply curve is an upward sloping, stair-stepped curve, where each step represents another type of generation facility. System reliability was maintained through rules that governed utility reserve practices.

The new products that are bought and sold in restructured wholesale markets are functionally similar to the ones that vertically-integrated utilities used to ensure reliable electricity service when they were governed by regulation. For example, most wholesale market operators

²⁰See, e.g., FERC, Order on Rehearing of Monitoring and Mitigation Plan for the California Wholesale Electric Markets, Establishing West-Wide Mitigation, and Establishing Settlement Conference, Docket Nos. EL00-95-031 et al. (June 19, 2001).

maintain a spot market that facilitates trades for real-time energy (*i.e.*, a retail supplier will purchase a certain number of megawatts for a particular hour (*e.g.*, Tuesday, 2 p.m. to 3 p.m.)) to meet expected demand that the retail supplier cannot meet through generation facilities of its own or through its longer-term contracts.

Rules governing electricity reliability generally require that additional generation capacity be available in case unexpected demand materializes or expected supply is unavailable. Electricity suppliers and buyers can purchase reserve generation capacity that will be available immediately, within 10 minutes, or later. These products provide backup supplies if for some reason the electricity purchased is not generated or a transmission line goes out of service (through severe weather or overloading). Each market has a somewhat different set of these reliability products (or “ancillary services”) based on prior operational history. Reserve requirements are used, in part, because of the lack of inventories that could be used to moderate fluctuations in supply and demand.

7. *How do electricity spot markets operate?* In newly created wholesale spot markets in California, New York, and in the New England and Mid-Atlantic states, participants engage in bid/ask transactions in markets for various energy products (*i.e.*, electricity and reserve products). Buyers of electricity bid what quantity they expect to need for each hour of the next day in auctions organized by the market operator (*e.g.*, the ISO). Suppliers bid the quantity *and* price at which they are willing to offer electricity for the same hours the next day. The market matches supplier quantity bids with buyer quantity bids to arrive at the market clearing price. Existing wholesale spot markets

generally do not allow buyers to bid prices, only quantity.

To minimize costs of acquiring electricity, electricity spot market demand in a region is met by utilizing or “dispatching” generating units in an order that is based on the plants’ bids in hourly auctions. Generating units with the lowest bids are dispatched first until all quantity demanded for that hour is met. Generating units with the higher bids are only dispatched during peak demand periods when their electricity output is needed to meet consumption. Generally, all units dispatched are paid the price of the generator with the highest bid that is dispatched during the time period -- the market clearing price.

8. *How can market power be exercised in wholesale electric power markets?* Market power is the ability profitably to maintain price above competitive levels for a significant period of time in a relevant market. Because electric power cannot be practicably stored in large amounts, short periods of time often represent distinct product markets. Geographic markets tend to vary over time depending on transmission congestion constraints and the ability of local demand to be met by distant generators.

Numerous factors can influence the likelihood that suppliers individually or collectively can exercise market power in any of the relevant markets in which they participate. Allegations have been made that certain unilateral conduct by generators have reflected the exercise of market power. Whether any such exercises of market power have taken place or raise antitrust concerns is beyond the scope of this report.

CHAPTER II COMPETITIVE WHOLESALE MARKETS ARE IMPORTANT TO EFFECTIVE RETAIL COMPETITION PROGRAMS

A. Introduction and Summary

Most commenters agreed that for all of the expected benefits of retail competition to be realized, it is imperative that wholesale markets also be competitive.¹ Competitive wholesale electricity markets are more likely if the potential for discrimination in transmission access and market power in generation have been addressed effectively.² And as discussed in Chapter I, the benefits of retail competition and wholesale competition are likely to be mutually reinforcing. Neither benefits customers as much when either is implemented alone.

The Federal Energy Regulatory Commission (FERC) has concluded that, even when vertically integrated monopoly utilities have functionally unbundled their generation assets from their transmission assets, they have continuing opportunities and incentives to discriminate against competitors in access to their transmission facilities and thus to impede

competitive markets.³ In addition to discrimination against competitors seeking access to their transmission facilities, vertically integrated utilities may exercise their market power at the transmission level by distorting the competitive process through cross-subsidization in favor of their unregulated affiliates.⁴ Both forms of behavior will likely reduce the degree of competition facing the vertically integrated utility's generation assets. As a result, FERC has required utilities to engage in efforts to place control and operation of their transmission facilities into Regional Transmission Organizations (RTO) by December 15, 2001. This process is ongoing and has yet to realize the full benefits of nondiscriminatory access to the interstate transmission grid.⁵ In addition, more than a third of the comments contended that at least some current wholesale electric power markets are burdened by supplier market power that prevents the benefits of state retail competition plans from accruing to customers.⁶

¹See, e.g., Enron at 8, IURC at 4, MidAmerican at 7-8, Northeast at 4, and Shell at 17.

²Existing market power in generation may warrant special attention because antitrust law does not address existing market power, unless it is obtained through mergers or anticompetitive acts and practices. Thus, antitrust law does not address existing market power that may have arisen under regulation, when merger reviews assumed that regulation would directly curtail market power for the foreseeable future. In the FTC July 2000 Staff Report, staff encouraged states to use computer simulation analysis to assess existing market power among electricity suppliers, and, prior to implementing retail competition, to address existing market power through structural remedies such as divestiture of generation capacity to multiple buyers. FTC July 2000 Staff Report at 12.

³FERC Order No. 2000, Regional Transmission Organizations at 35, 70 (Dec. 17, 1999).

⁴See FTC July 2000 Staff Report at 7, 15-16.

⁵In July, FERC indicated that it favored the formation of single RTOs in the Northeast and in the Southeast. It has initiated a mediation of all parties involved to assist in forming these RTOs. See e.g., FERC, Order Provisionally Granting RTO Status, PJM Interconnection, L.L.C., et al., Docket No. RT01-2-000 (July 12, 2001); FERC, Order on Compliance Filing and Status Report, GridSouth Transco, LLC, Docket Nos. RT01-74-002 et al. (July 12, 2001).

⁶Green Mountain at 5, ICC at 14, IURC at 4-7, IECP at 5, ME PA at 3, MG at 13, MD OPC at 2-6, MidAmerican at 5, MinnPower at 4, NEMA at 14, NRECA at 14, Northeast at 3-4, Shell at 10-11, TAPS at 2-

Competition in wholesale electricity markets can be increased in at least two ways. First, distant electricity generators must be able to serve local customers by using the interstate transmission grid in an efficient manner. For this to occur, there should be: a) independent and nondiscriminatory, open access to the transmission grid;⁷ b) efficient pricing of transmission services; and c) regional siting of new and upgraded transmission facilities to enhance and upgrade the interstate transmission grid. Second, competitors can site new generation near the customer base to deconcentrate electricity generation markets. For this to occur, a) outdated impediments to construction of efficient, new generation facilities should be removed, and b) impartial interconnection policies, which govern how new generation facilities interconnect to the transmission grid, should be adopted. In addition, state policies that reduce impediments to distributed generation resources can also increase competition faced by electricity suppliers.⁸

3, UWUA and the MUPHT at 19.

⁷See FERC Order No. 2000, *supra* n. 3.

⁸There are other federal statutes and policies that may affect whether wholesale markets are fully competitive, including, among others, the Public Utility Company Holding Act, the Public Utility Regulatory Policy Act, and the statutes governing the Tennessee Valley Authority and other federal electric power generators. The issues surrounding the effect of these and other statutes and policies on retail electricity markets, as well as whether, and how, these statutes should be amended in light of retail competition, have generated much discussion and debate. Some of those issues are discussed at:
<<http://com-notes.house.gov/cchea/hearings106.nsf/main>>.

On a related note, states should examine whether retail competition alters the need for or nature of rules governing electricity generation reserve or capacity requirements to ensure reliable service. Reserve requirements that are based on a regulatory model, rather than one that reflects the emergence of retail competition, may inadvertently hamper wholesale, as well as retail, competition among electricity suppliers and marketers.

B. Effective Operation and Management of the Transmission Grid Can Expand Wholesale Electricity Markets

Antitrust experience and economic theory teach that in certain situations enlargement of geographic markets tends to reduce concentration among suppliers, and thus reduce the potential exercise of market power. Larger wholesale electricity geographic markets can enable retail suppliers and marketers to buy generation services from a wider range of local and distant sources (*e.g.*, utilities with excess generation, independent power producers, cogenerators, etc.). Even if no new generation facilities are built, operation and management of the transmission grid that broadens the geographic area in which competing wholesale electricity suppliers can economically supply power to wholesale customers increases the choices available to those customers. Larger geographic markets also tend to reduce the need for high-cost peaking generation units, because demand peaks in one area may not coincide with those in other areas -- generation capacity from an area not experiencing a peak period would be available to supply areas that are experiencing peak demand.

Electricity can be transmitted at extraordinary

speed over transmission lines with modest incremental transportation costs. Wholesale markets for electricity are thus capable of being very large. This is likely to be important for competitive markets because, unlike other commodities, electricity cannot be stored in large quantities. As a result of this physical attribute, inventories cannot dampen price volatility, as they often do in other industries, by satisfying part of demand when demand exceeds production in a specific time period. Thus, larger markets and access to a greater number of suppliers can balance the lack of storage capability and inventories.

For an array of historical and operational reasons, the U.S. transmission grid is balkanized to various degrees. Control and operation of the grid rested historically with localized regulated monopolies. More recently, control has been turned over to Independent System Operators (ISOs) (*e.g.*, California, New York, New England states, and the Mid-Atlantic states). Some portions of the grid are significantly congested or overloaded at times, which impairs the ability of distant suppliers to serve local demand.

The comments addressed three major policies surrounding the operation of the interstate transmission system in ways that affect state retail competition programs. First, they noted that discrimination in transmission access must be curtailed so that distant suppliers can compete against generation services supplied by the transmission owner. In addition, “pancaking” of transmission rates needs to be eliminated so that wholesale traders have a greater range of economic electricity trades

across the interstate transmission grid.⁹ To this end, FERC has required transmission-owning entities to engage in efforts to place control and operation of their transmission facilities into a Regional Transmission Organization (RTO) by December 15, 2001.¹⁰ The RTOs are to provide for the independent operation of the electric power transmission grid.¹¹ In this case, independent operation of the transmission grid means that its operation would be independent from its owners’ interests in generation and distribution.

The FTC continues to support legislation that affirms FERC’s authority to order the establishment of independent RTOs and to integrate the transmission systems of state and municipal utilities and rural cooperatives, as well as those of federal electric utilities, into the RTO formation process.¹² Although the RTO formation process is a FERC initiative, several

⁹“Pancaked” transmission rates refer to the transmission rates that wholesale buyers and sellers must pay to multiple transmission owners to cross two or more transmission systems to complete the trade. FERC has required that RTOs eliminate the use of pancaked transmission rates. FERC Order No. 2000 at 331-32.

¹⁰Other benefits of regional control and operation of the transmission grid (and hence larger geographic markets) include regional transmission pricing, improved congestion management of the grid, and more effective management of parallel path flows. FERC, Order Provisionally Granting RTO Status, PJM Interconnection, L.L.C., et al., Docket No. RT01-2-000 (Jul. 12, 2001) at 3.

¹¹FERC Order No. 2000 at 152-53.

¹²*See* Letter of the Federal Trade Commission to House Commerce Committee Chairman Thomas Bliley, Analysis of H.R. 2944 (Jan. 14, 2000).

states have required transmission owners operating in the state to participate in a fully operational RTO as a prerequisite of retail competition. This policy has assisted the development of competitive markets.

Second, many of the commenters argued that in states that have implemented retail competition, distinctions (in terms of pricing and priorities) for use of the transmission system must be eliminated so that all uses of transmission facilities are afforded comparable treatment. Pricing distinctions have arisen between wholesale and retail sales of electricity that involve transmission because FERC regulates wholesale sales of electricity whereas states regulate retail sales of electricity. Pricing should be comparable, regardless of who regulates the transaction, or market participants will receive inefficient signals to guide their behavior. In addition, uses of the transmission system to supply a distribution utility's retail customers have been exempt from FERC's open access requirement. In a competitive retail environment,¹³ the market will provide incentives for market participants to engage in efficient sales of electricity such that there is no basis for providing a distribution utility's retail customers with priority access to the transmission system. Moreover, customers who remain with the incumbent distribution utility (and *do not* choose an alternative retail electricity supplier) should not have more reliable service than those customers that choose a new retail supplier; such a system may skew competition

¹³See Question 2, Wholesale Market Issues, Chapter I, for a discussion of the complexities of transmission pricing. Presumably, once RTOs are operational, transmission will be priced efficiently. FERC Order No. 2000 at 332.

in favor of the incumbent distribution utility.

Third, commenters suggested that obstacles to expansion, upgrade, and reconfiguration of the electric power transmission grid should be addressed in a rational and nondiscriminatory manner. The comments also revealed that although states have sufficient authority to allow transmission improvements within a particular state, many efficient transmission improvements that would expand the geographic scope of wholesale electricity markets are likely to be outside the jurisdiction of a single state. Thus, many of the comments favored a regional or federal mechanism to site transmission facilities. They suggested that such a mechanism could ensure that expansion of the grid focuses on effective ways to deal with bottlenecks in the interstate transmission grid, assists the promotion of competition, and avoids conflicts over state boundaries.

1. Independent Operation of the Transmission Grid is Necessary for Effective Wholesale Competition

Many commenters argued that the entire U.S. electric transmission grid should be under independent management and operational control, with incentives to optimize throughput of electric power over the grid.¹⁴ They reasoned that independent operation eliminates the need for regulators to specify elaborate rules for the use of the grid by vertically integrated utilities and their affiliates and to monitor their conduct. Others suggested that because the movement of electricity does not respect state boundaries, but rather is based on the laws of physics, regional

¹⁴See, e.g., NEMA at 14, TAPS at 2.

organizations to manage reliability, pricing, congestion management, planning, expansion, and interregional coordination are critical to effective wholesale and retail competition programs.

To this end, many commenters endorsed the formation of RTOs to operate the transmission grid free from possible discrimination by transmission owners that compete with other suppliers of generation. One commenter explained that RTOs can provide the open access, non-discriminatory transmission necessary for wholesale suppliers to compete economically for sale to wholesale customers (*i.e.*, retail suppliers).¹⁵ Others noted that as RTOs are developed, regionalism will continue to grow in importance; they suggested that states support the development of cooperative regional regulatory mechanisms to encourage non-discriminatory, open-access transmission services.¹⁶ The national association of electric power suppliers stated that the establishment of RTOs represents one of the next steps to developing a seamless national transmission system where all transmission usage is accorded fully comparable treatment.¹⁷

Independent control of the transmission grid also will eliminate the perception of bias that unaffiliated generators may have when they want to interconnect to the transmission grid. Historically, through regional reliability councils, incumbent, vertically-integrated utilities would review applications for the interconnection of

new generation facilities to the grid. Collaboration among utilities was required because the new generation facility could potentially cause congestion throughout the grid, and thus adversely affect each utility's ability to maintain reliable service. With independent operation of the grid, the ability of transmission owners, who also own competing generation assets, to use reliability as a guise to prevent or delay the interconnection of new competitors is reduced or eliminated.

a. Current ISOs Have Assisted the Development of Wholesale Competition

Although no RTOs are currently operational, FERC has authorized the formation of several ISOs to control portions of the nation's transmission grid. The ISOs that are currently operational include the California ISO, PJM Interconnection (which operates the transmission grid in Pennsylvania, New Jersey, Maryland, Delaware, and the District of Columbia), ISO New England (which operates the grid in Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, and Connecticut), and the New York ISO. In addition, the Texas commission has ordered the formation of an ISO to operate in most of Texas (ERCOT). The ISOs are independent, non-profit entities that operate the transmission grid on a nondiscriminatory basis. ISOs can be seen as predecessors to fully functioning RTOs, which are required by FERC to have certain characteristics and perform various functions.

It has been the Pennsylvania commission's experience that a functioning and competitive retail market cannot be successful without a functioning and competitive wholesale market

¹⁵Northeast at 4.

¹⁶NARUC at 17.

¹⁷EPISA at 11.

that is operated independently from the utilities.¹⁸ The Pennsylvania commission explained that as it implemented its restructuring legislation, new suppliers seeking to operate within Pennsylvania informed the commission that utilities either refused to supply, or demanded prohibitive prices for, installed capacity credits that were necessary for operation.¹⁹ The Pennsylvania commission concluded that an independent PJM was needed to provide entrants with confidence to do business in Pennsylvania. The New Jersey Ratepayer has indicated that, in fact, PJM has had a substantial positive effect on the development of competition.²⁰ The existence of wide regional coverage under a single tariff allows retail suppliers to use a large number of competing wholesale supply sources without payment of multiple transmission charges, and it also provides for easy access to services such as load balancing.²¹ Similarly, the New York commission noted that there was “a surge in retail access participation following the opening of the New York ISO in November 1999.”²²

By contrast, the lack of an operating regional transmission grid operator appears to have delayed the development of competitive wholesale markets in the Midwest. The Michigan commission stated that the uncertainty

¹⁸PA PUC at 39-40, PA OCA at 20

¹⁹Installed capacity is a reserve generation capability product some grid operators believe is necessary for the reliable operation of the grid. It is discussed more extensively in Section C.3 *infra*.

²⁰NJ Ratepayer at 9.

²¹Exelon at 27.

²²NYPSC at 13.

surrounding the development of an RTO in the Midwest “has likely inhibited movement towards a competitive market.”²³ The Illinois commission stated that an entity that wishes to serve retail customers in the state must obtain its power within a relatively limited geographic market, because the cumulative cost of additive transmission rates often makes it economically infeasible to import power over long distances. It further asserted that development and early operation of a properly designed and configured RTO for the Midwest will be critical to the success of Illinois’ retail competition program.²⁴ A utility that is the distribution utility in certain areas and an alternative supplier in other areas in the Midwest further claimed that the lack of RTOs has already harmed retail competition in many areas by making transmission access more difficult, especially in areas that do not have an established power pool.²⁵

b. Market Design and Congestion Pricing Must Be Addressed

Despite the praise for independent operation of, and nondiscriminatory access to, the transmission grid, many commenters suggested that wholesale competition is not yet effective due to flaws in the design of wholesale generation markets and in congestion pricing regimes. Flawed market designs have reportedly contributed to higher wholesale power prices and greater price volatility in

²³MI PSC at 10.

²⁴ICC at 22, *see also* Exelon at 27.

²⁵MidAmerican at 7.

California,²⁶ which have, in turn, raised retail suppliers' cost of business to unprofitable levels, driving them out of the retail business.²⁷ The MD OPC also raised questions about whether some electricity suppliers may be withholding capacity, either unilaterally or collectively, in an effort to increase wholesale prices.²⁸ In addition, some commenters noted that consistent market rules among wholesale markets are needed, especially among neighboring markets. Another commenter indicated that unless RTOs are sufficient in size and scope, arbitrage based on differences in rules among RTOs will occur to the detriment of retail customers.²⁹ For example, one commenter maintained that California's efforts to remedy reliability and pricing anomalies during the recent turmoil in wholesale markets in the West were frustrated by the different rules governing wholesale market operations in the West.³⁰ Other commenters

suggested that volatility in wholesale prices, as well as their high level, increases the risk of participation in retail markets substantially, and thus has an adverse effect on retaining significant numbers of retail suppliers, even in states touted as "successes."³¹

Flawed congestion pricing regimes also have led to less than efficient use of the transmission grid. Transmission costs include both a charge for the use of the system as well as a charge for congestion caused by each specific transaction over the grid. Accurate congestion charges are important both to obtain efficient use of the grid and to provide accurate signals for investments in expanding the grid or in siting generation. FERC has approved use of locational marginal pricing (LMP) of grid congestion in several ISOs. This pricing regime appears to be working well in providing for the efficient operation and expansion of the grid in the context of the ISO market rules in place.³²

There appears to be a consensus that states can provide critical support for the development of competitive wholesale markets by ordering all transmission owners to participate in fully operational RTOs prior to initiating retail competition. RTOs will facilitate the regional sale of electricity, thus enlarging the spectrum of choices available to retail electricity suppliers for sources of generation.

²⁶MD OPC at 3. For example, FERC has determined that the mandatory buy/sell requirement, as well as wholesale market rules that produce incentives to underschedule expected demand with the ISO, have contributed to the "dysfunctional" wholesale markets in California. *See* FERC, Order Directing Remedies for California Wholesale Electric Markets, Docket Nos. EL00-95-000 et. al (Dec. 15, 2000) at 4-5. *See also* Appendix A, California Profile, for further discussion of wholesale market operations in California.

²⁷*Id.* at 1.

²⁸*Id.* at 3.

²⁹MG at 8.

³⁰FERC recently addressed the interdependence among wholesale spot prices in the Western Interconnect in its June 19, 2001 order addressing wholesale market conditions in California. FERC, Order on Rehearing of Monitoring and Mitigation Plan For The California Wholesale Electric Markets, Establishing West-Wide Mitigation, And Establishing Settlement Conference,

Docket No. EL00-95-031, et al. (June 19, 2001).

³¹NRECA at 14, *see also* MidAmerican at 5.

³²*See* Comment of the Bureau of Economics and of Policy Planning of the Federal Trade Commission, Federal Energy Regulatory Commission, Docket Nos. EL00-95-000 et al. (Nov. 22, 2000).

2. Efficient, Comparable Pricing of Transmission Services Enables Markets to Work More Effectively

Many commenters suggested that efficient and comparable transmission pricing is essential to robust wholesale competition. Currently, FERC requires owners and operators of wholesale transmission facilities to provide nondiscriminatory, open-access transmission services to third parties at rates comparable to those of the owner's own uses of the transmission facilities.³³ FERC's open access policy applies to two types of transmission sales: (1) wholesale sales of unbundled transmission services (*i.e.*, when transmission services are sold by and between wholesale suppliers separately from generation services); and (2) retail sales of unbundled transmission services (*i.e.*, when transmission services are sold independent of generation to retail customers).

The open access requirement, however, does not apply when the owner of the transmission facilities (*i.e.*, a distribution utility) is providing bundled service (when transmission and generation supplies are sold together) to its retail customers ("native load"). States continue to regulate the price of bundled retail sales. This policy is on appeal to the U.S. Supreme Court in

³³See FERC Order Nos. 888, F.E.R.C. Stats. & Regs. (CCH) ¶31,036 (Apr. 24, 1996) (Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities), and Order No. 889, F.E.R.C. Stats. & Regs. (CCH) ¶31,594 (Apr. 24, 1996) (Open Access Same-Time Information System and Standards of Conduct). For transmission owners that are members of ISOs, FERC has approved an ISO-wide tariff to be used in that region.

New York et al. v. FERC (00-0568) and Enron Power Marketing Inc. v. FERC (00-0809).³⁴ Under state retail competition programs, the standard offer service, which states typically require distribution utilities to provide to customers that do not choose an alternative supplier, is comparable to native load obligations and, therefore, is potentially exempt from FERC open access requirements.

Many commenters suggested that unless there is comparable pricing of interstate transmission, regardless of whether it is bundled or unbundled with a retail sale of energy, wholesale competition will not be successful.³⁵ For example, some commenters noted that a bifurcated approach can result in bundled and unbundled market participants not facing the same price signals for the cost of transmission services.³⁶ As a result, according to one comment, a bifurcated approach (state control of bundled retail sales and FERC control of other uses of transmission) "will continue to make it difficult to establish the conditions to support broad regional power markets. A bifurcated approach to transmission jurisdiction results in inefficient transmission use which leads to less liquidity in transmission markets."³⁷ Others suggested that a bifurcated approach leads to balkanization and inefficiency in the operation of

³⁴See FPSC Comment for a discussion of the importance of clarifying federal and state jurisdiction in restructured electricity markets.

³⁵EPSA at 11, MidAmerican at 9, TAPS at 5.

³⁶Exelon at 29.

³⁷ICC at 27.

the grid.³⁸

By contrast, some states suggested that they should continue to set transmission rates for individual retail customer classes (each of whom has peak usage of the transmission system at different times of the day and different seasons of the year). These commenters expressed concern that cost shifting and disruptive shifts in tax revenues could result absent separate transmission tariffs for each customer class.³⁹

The issue of whether states or FERC should have jurisdiction over the pricing of the transmission component of bundled retail sales is moot in those states that have introduced retail competition and have an operating ISO in place. In these states, transmission services, regardless of whether they are used in bundled or unbundled retail sales of electric power, use the ISO's transmission tariff. For example, the Maine commission conceded jurisdiction to FERC over the pricing of transmission services and has unbundled transmission and distribution rates so that the transmission component is updated annually based on FERC-approved rates for ISO-New England.⁴⁰ In Pennsylvania, all retail load, whether it is a bundled service provided by the utility as the standard offer provider or an unbundled service provided by the utility or an alternative generator supplier, is served under network transmission service supplied under the PJM tariff.⁴¹

³⁸MinnPower at 5.

³⁹NARUC at 34, *see also* PA PUC at 46.

⁴⁰ME PA at 21.

⁴¹Exelon at 29, PA PUC at 39-41.

In those states where an ISO is not yet operating, some have indicated that they will use the approved FERC tariff rates for the transmission component of bundled retail sales. For example, the Michigan commission requires the use of FERC tariffs for the transmission component of retail rates.⁴²

Thus, in states that have moved to retail competition and have an ISO in place, all transmission services, whether bundled or not, are priced under the ISO's tariffs, which ensures that there is comparability between wholesale and retail transmission pricing and access policies. As Shell explained, retail sales of bundled energy and transmission services will continue to be regulated by the states, but the charges for the transmission will be a direct pass-through of the RTO transmission charges approved by FERC.⁴³ This policy appears to ensure nondiscriminatory rates and treatment for all users of transmission access and to avoid pancaked rates, which can deter entry.

Finally, in a retail environment, the provider of standard offer services should not be provided preferential treatment with regard to transmission of wholesale generation.⁴⁴ According to the comments, when access to the transmission grid is based on nondiscriminatory rates, rather than on artificial preferences, the grid operates more efficiently. The states that have moved toward retail competition in New

⁴²MI PSC at 11.

⁴³Shell at 19.

⁴⁴Once RTOs are operational, presumably they will be using market mechanisms to manage transmission congestion to ensure efficient transmission pricing. FERC Order No. 2000 at 332.

England, New York, Texas, and the Mid-Atlantic region indicated that no preferential treatment in access to the transmission system is extended to providers of standard offer service.⁴⁵

In those states that do not yet have an operating ISO, some preferential access to transmission may still be afforded the utility's native load obligations, which may adversely affect the competitiveness of the wholesale market. For example, in Michigan, to the extent that utilities have long-term firm contracts, utility native loads receive preferential treatment to transmission resources. Michigan's program treats the utility's native load as default services.⁴⁶ Illinois law requires the standard offer provider to be the incumbent utility. Because this is retail bundled service, it is not subject to FERC tariffs. Although there is no universal agreement that this leads to "preferential transmission treatment," the Illinois commission noted that "when substantial amounts of transmission capability are retained outside the otherwise-applicable open access transmission tariffs," there are opportunities to benefit an unregulated affiliate's power sales and power trading business.⁴⁷

3. Regional Transmission Siting

The third area that can affect effective wholesale markets involves obstacles to efficient expansion, upgrade, and reconfiguration of the electric power grid. Increases in generation capacity and

upgrades in transmission systems are alternative ways by which market supply can be increased. Efforts to reduce congestion on transmission lines can expand geographic markets, allowing distant generation to compete economically with local generation and, thus, mitigating localized market power in generation.

Expansion, upgrade, and reconfiguration of the power grid presents a unique problem in electricity markets. As one commenter explained, the existing transmission lines were originally built as a series of back-up lines to enhance reliability of largely self-sufficient local franchised monopolies. Now, however, these facilities are increasingly called upon to carry regional transfers on a continual and expanded basis. Upgrades have not kept pace with the increase in demand for transmission services, and this will become more of a problem in a competitive market.⁴⁸ As wholesale transactions have increased and the grid has become more congested, transmission service has increasingly been denied or curtailed for reliability reasons.⁴⁹ This reduces the effectiveness of distant generation as a constraint on potential market power in a local area.

The ability of any individual state, however, to remedy transmission constraints is limited. For example, the Illinois commission explained that transmission constraints are not state-specific, but regional in scope, and that if there are transmission constraints outside of Illinois that

⁴⁵Allegheny at 7, ME PA at 21, ME PUC at 8, MidAmerican at 10, NYPSC at 21, PA PUC at 46, TX PUC at 16.

⁴⁶MI PSC at 12.

⁴⁷ICC at 27.

⁴⁸ECA at 7.

⁴⁹TAPS at 6 (TAPS members have seen the results of this situation in foreclosed, cancelled, or disrupted transactions, and, consequently, far fewer responses to requests for proposals to provide distant generation.).

affect distant suppliers reaching Illinois customers, there is little the Illinois commission, acting alone, can do about them.⁵⁰ Another commenter pointed out that “no state is an electrical island.”⁵¹ Texas may be an exception, because the wholesale transmission grid that covers most of Texas is not interconnected with the rest of the country (except in limited circumstances). But as a general matter, individual states acting alone are unable to remedy or to address those transmission shortages or constraints that may affect a state’s electricity supply, but which occur outside a state’s boundaries.⁵² Some commenters pointed out that such problems also have larger implications. For example, any local siting decisions in California that do not adequately address transmission shortages in that state have potential ramifications not only for the regional markets of the western United States, but also for the economy more generally.⁵³

Several states have had difficulty addressing transmission shortages when siting for new transmission lines required the cooperation of neighboring states. For example, New York, Wisconsin, and West Virginia have all recently had difficulty obtaining approval from neighboring states to build new transmission lines.⁵⁴ Others have noted that “practical experience” suggests that states may not be able to resolve all of the issues associated with

transmission siting, particularly when non-jurisdictional utilities (*e.g.*, a federal power agency) are involved, or when bottlenecks occur in neighboring states.⁵⁵

Few states systematically studied whether there were any transmission constraints before implementing retail competition,⁵⁶ although a number of states indicated that they knew of likely transmission constraints.⁵⁷ Indeed, one state suggested that, in retrospect, greater coordination between the actions of federal and state governmental entities would have been useful in the identification and resolution of issues related to transmission constraints, especially prior to the introduction of wholesale open access.⁵⁸

Another state commission explained that the current situation, in which transmission rates are set by a federal agency and construction is authorized by a state agency, will need to change.⁵⁹ Others noted that regional markets, which transcend state boundaries, are part of the answer to achieve fully competitive wholesale markets. “[T]ransmission improvements designed to remedy constraints must be designed on a regional basis, as single state attempts may result in constraints in other regions, or be far more expensive or difficult to

⁵⁰ICC at 28.

⁵¹MinnPower at 6.

⁵²Enron at 9.

⁵³NEMA at 17.

⁵⁴EI at 6-7, TAPS at 7-8.

⁵⁵MI PSC at 13.

⁵⁶Allegheny at 7 (Maryland), ICC at 28 (Illinois), PA PUC at 47 (Pennsylvania), NJ Ratepayer at 11 (New Jersey).

⁵⁷ME PUC at 8, MI PSC at 12, NYPSC at 22.

⁵⁸ICC at 28.

⁵⁹ME PUC at 8. *See also* TX PUC at 18.

accomplish than a regional approach to such improvements.”⁶⁰ The Illinois commission believes that within the state it has authority to address transmission constraints, at least under some circumstances, but a centralized approach that operates on a regional or national level may well be the most effective way to create an efficient transmission system.⁶¹

There seems to be a near consensus that a new authority, beyond existing state authority, is necessary to address transmission constraints. At least a regional, if not a federal, solution is required. For example, one commenter stated that a new regulatory model for siting and approving interstate transmission projects is necessary if consumers are to fully enjoy the benefits of retail and wholesale electric competition.⁶² A regional body should be empowered to judge the need for such projects, and such body should be required to give certain deference to local issues, including those of all affected entities. The process should be clearly delineated for this purpose.⁶³

Some commenters favored a federal role in siting of transmission, while others suggested that such a role was unnecessary. For example, some argued that there is a clear need for siting approval and federal eminent domain authority for transmission projects needed for regional reliability and vigorous competition.⁶⁴ With the

advent of competition, some commenters believe a role for FERC in transmission line siting may be useful in counteracting any state’s tendency toward parochialism.⁶⁵ Other commenters argued that federal jurisdiction over electric transmission is essential if RTOs are to function as truly regional entities.⁶⁶ In addition, some believe a federal right of eminent domain is necessary where a state has been unable expeditiously to site facilities deemed essential through a regional transmission planning process.⁶⁷ NEMA said that there must be better recognition in local siting decisions of the regional economic impacts of inadequate energy supplies.⁶⁸

Exelon stated that the arguments in favor of federal jurisdiction over interstate transmission siting are as strong or stronger than the arguments in favor of the existing federal authority over interstate natural gas pipeline siting.⁶⁹ Although FERC has authority to order construction of transmission facilities, it has no authority to approve siting of new transmission facilities.⁷⁰ The Pennsylvania commission supported FERC being able to make “need” determinations regarding proposed transmission improvements, whether or not such improvements cross a state line, because in today’s regional markets, relatively small

⁶⁰PA PUC at 47.

⁶¹ICC at 28.

⁶²ECA at 8.

⁶³*Id.*, TX PUC at 18.

⁶⁴Enron at 9, MidAmerican at 9.

⁶⁵Allegheny at 7.

⁶⁶NEMA at 16.

⁶⁷MinnPower at 4.

⁶⁸NEMA at 17.

⁶⁹ICC at 28, *see also* Exelon at 30.

⁷⁰Exelon at 30.

transmission improvements may have a large effect on the operation of the interstate grid.⁷¹

EEI described how the ability to upgrade and build new transmission facilities is impeded in virtually all areas of the country. No federal agency has eminent domain authority for electricity transmission as FERC does to site natural gas pipelines.⁷² EEI stated that federal, state, and local decision makers must cooperate to site transmission that an RTO determines will benefit a region. In EEI's view, if cooperation is not possible, FERC should have eminent domain authority to build transmission as a backstop.⁷³

Other commenters suggested, however, that there have been no experiences to date that demonstrate a need for federal jurisdiction in looking at increased transmission needs.⁷⁴ Moreover, some commenters held that the reasons for the federal right to site natural gas pipelines are different than those for the federal right to site electric transmission lines. For example, the Maine commission stated that electric transmission facilities are substantially different from natural gas transmission facilities in that electricity generation plants can be substituted for construction of long linear transmission facilities that create visual and environmental disturbances.⁷⁵ The Maine

commission articulated the view that because generation and transmission are substitutes, it is unfair to allow citizens of one community to drive the need for construction of a transmission facility by refusing to allow a generation plant that can meet the need more economically in their community.⁷⁶ If federal authority is extended to cover construction of transmission facilities, the Maine commission believes, authority must also include the authority and responsibility to examine such situations and when warranted, to override local opposition to construction of new generation.⁷⁷

On balance, the jurisdictional approach to transmission siting authority should reflect the regional nature of wholesale electricity markets. This has become even more important in light of FERC's recently announced preference for only one RTO to operate in each of the Northeastern, Southeastern, Midwestern, and Western areas of the country. Thus, a regional entity, such as an RTO or other multi-state organization, should have the authority to site transmission upgrades, including the right of eminent domain. Otherwise, a federal authority, that considers state issues, should have such siting authority.

C. Increased Generation Capacity Also May Address Market Power Concerns

Several approaches may be appropriate in different circumstances for addressing market power arising from concentrated ownership and control of generation resources in any given market. Which approach is efficient in a particular case depends on all pertinent benefits

⁷¹PA PUC at 55.

⁷²EEI at 7.

⁷³*Id.* at 9.

⁷⁴NYPSC at 22.

⁷⁵ME PUC at 8. The Michigan commission noted electric generation, transmission, distribution and distributed generation are at least partial substitutes for one another. MI PSC at 13.

⁷⁶ME PUC at 8.

⁷⁷*Id.* at 8-9.

and costs. In any event, an important approach to reducing market power problems is to eliminate outdated barriers to construction and expansion of generating capacity.

The comments discussed two ways to foster the expansion of generation capacity in wholesale electricity markets.⁷⁸ The first method is to facilitate prompt and low-cost interconnection of new generation capacity and ensure that this additional capacity can be sold on nondiscriminatory terms. The second method is to facilitate the use of customer-owned or controlled distributed resources that act as substitutes for centralized supplier generation facilities.⁷⁹ Self-generation of electric power during peak-demand periods also would reduce the load supplied by the distribution grid during peak-demand periods.

⁷⁸Other methods to expand generation capacity not discussed here include substitutes for electricity generation such as the development and installation of energy storage technologies and conversion from electric-powered equipment to equipment powered by alternative energy sources (*e.g.*, refrigeration and compressors fueled by natural gas, which is more practicable to accumulate and store during off-peak demand periods). *See* CAEM at 11.

⁷⁹Distributed resources generally refers to onsite generation. The most prominent and long-established form of onsite generation is co-generation facilities that provide both heat and electricity in large industrial settings. More recently, advances in generation technology have led to development of microturbines and fuel cells. On-site solar, wind, and geothermal generators are other forms of distributed resources. On-site internal combustion emergency generators (common in hospitals and other institutions where electric power interruptions may be particularly costly) and energy storage devices may also be included in the definition of distributed resources.

States have sufficient authority to implement interconnection policies and rate designs that will give accurate incentives to the development and installation of centralized and distributed resources. Coordination of these policies and rates nationwide could help to reduce transaction and administrative costs to speed these technological developments. To this end, FERC has announced recently that it will soon “evaluate the importance of standardized interconnection procedures.”⁸⁰

1. **Generation Siting and Adequate Generation Capacity**

One of the main sources of the electricity imbalance in California has been the well-documented lack of additional generation (and transmission) capacity being built in California as retail demand for electricity has increased in California.⁸¹ This lack of additional capacity (which has been exacerbated by the legal and practical difficulties in siting new generation)⁸² has contributed to the high wholesale prices, reliability problems, and financial difficulties of the providers of standard offer service in

⁸⁰FERC, Order Provisionally Granting RTO Status, PJM Interconnection, L.L.C., et al., Docket No. RT01-2-000 (July 12, 2001) at 18.

⁸¹FERC, Market Order Proposing Remedies For California Wholesale Electrics, Docket Nos. EL95-00-000, et al. (Nov. 1, 2000). The efficient amount of new capacity that is necessary to meet peak demand, however, as discussed in Chapter III, should be informed by appropriate price signals that reflect the prices of obtaining wholesale electricity in peak periods.

⁸²The state’s permitting process for power plants reportedly takes three times as long as in Texas. Mercatus at 11. *See also*, Appendix A, California Profile, regarding recent and planned capacity additions in California.

California.⁸³

Whether a state with retail competition has sufficient in-state generation to meet peak demand in the state will be irrelevant if transmission lines into the state are not congested and generation capacity is available outside the state.⁸⁴ With a regional grid and available generation capacity, the relevant market is larger than the state, so the relevant supply and demand relationships are regional as well. As one state commission explained, comparing in-state capacity with in-state peak load is irrelevant because, in competitive markets, generation is owned by unregulated generators who can locate inside or outside the state and sell to whomever they wish.⁸⁵

Many of the states that have implemented retail competition have eliminated, or do not require, a certificate of need before a new non-utility plant is constructed. When generation services were considered monopoly services, state commissions often required a utility to show that there was a “need” for the new generation asset prior to including its costs in the regulated rate base of the utility, which would be recovered through the utility’s captive customers.

Marketers contended that states should relieve

merchant power plant developers of the requirement to obtain a certificate of need. They argued that rules and policies that promote the development of merchant power plants provide numerous benefits, including lower-cost plants, environmental improvements (as newer facilities replace older generation assets), reduced incumbent utilities’ vertical and horizontal market power, and provision of liquidity needed to support robust wholesale trading.⁸⁶ According to EPSA, the shifting of risk from utility ratepayers to merchant power investors under retail competition suggests that, with respect to development projects financed by new entrants, certificates of need are obsolete.⁸⁷

For example, in the New England Region, the Maine Public Advocate noted that, to date, 1,600 MW of new gas-fired combustion turbine capacity is being brought on line without any state commission involvement.⁸⁸ The Maine commission noted that development of new generation has exceeded load growth within Maine.⁸⁹ In the mid-Atlantic region, all three states (Pennsylvania, New Jersey, and Maryland) have eliminated the need requirement.⁹⁰ Some states noted that if the applicant wishes to obtain the right to exercise the power of eminent domain in connection with the project, a certificate of need is still required.⁹¹ In

⁸³State siting requirements based on environmental issues may present obstacles to siting new generation facilities in any state. Such issues, however, are beyond the scope of this report.

⁸⁴In-state capacity is relevant if transmission is constrained, if entry is impeded in areas outside the state that would otherwise supply the state, or if demand simultaneously peaks in the state and in surrounding areas.

⁸⁵ME PUC at 9.

⁸⁶EPSA at 9.

⁸⁷*Id.* at 10.

⁸⁸ME PA at 22.

⁸⁹ME PUC at 9.

⁹⁰NJ Ratepayer at 11 (New Jersey), Allegheny at 7 (Maryland), and PA OCA at 22 (Pennsylvania).

⁹¹Allegheny at 7 (Maryland), PA OCA at 22.

Pennsylvania, however, the commission retains limited authority to review plants fueled by nuclear energy, oil or natural gas to determine whether existing coal-fired plants could be operated in compliance with environmental laws or whether new coal-fired plants could be economically constructed and operated, so as to obviate the need for construction of alternative types of facilities.⁹² And overall in PJM, 17,000 MW of capacity are at a stage that gives confidence they will come into service by 2004 – 4,200 MW are already under construction, construction is set to begin on another 9,100 MW, and 3,700 MW consist of upgrades to generation stations that are already operating.⁹³ In general, PJM’s FERC-approved tariff contains a model for analyzing regional electric generation needs, determining procedures for evaluating individual proposals, and defining queues for proposed projects.⁹⁴

In the Midwest, since passage of the competition act in Illinois, 6,600 MW of new generation has been built without a need requirement. It is expected that 3,600 MW will come online in 2001 and 7,500 MW in 2002, with 3,600 MW of that currently in a definitive stage.⁹⁵ In Michigan, no new generation was built from 1990-98, but since legislation was enacted in 2000, many merchant plants have announced and started construction.⁹⁶ California also has adopted accelerated plant siting procedures, and new

generation plants are coming on line. (See Appendix A, California Profile).

The Texas commission noted that since the Texas Legislature deregulated electric generation at the wholesale level in 1995, there has been a “building boom for new power plants in Texas.”⁹⁷ Since 1995, 27 new power plants have been built without any showing of need, totaling over 9,300 MW of new capacity, and an additional 27 power plants are under construction, which will add 14,000 MW of new capacity within the next three years.

There seems to be a consensus that in a state with retail competition, state siting of generation is still workable, but it should not include a requirement that utilities demonstrate such a facility is needed to meet native load requirements.⁹⁸ Furthermore, the comments suggested that federal jurisdiction over generation siting is unnecessary.⁹⁹

2. The Special Case of Distributed Resources (Generation) Owned by Retail Customers

Many commenters suggested that increased use of distributed resources can help constrain supplier market power, particularly if customers can easily interconnect their distributed resources with the distribution grid.¹⁰⁰ Two

⁹²PA PUC at 48.

⁹³Exelon at 4.

⁹⁴PA PUC at 48.

⁹⁵Exelon at 4.

⁹⁶MI PSC at 13.

⁹⁷TX PUC at 16.

⁹⁸MidAmerican at 9.

⁹⁹Allegheny at 7, Cleco at 7, MI PSC at 13, ME PA at 22, NYPSC at 23. *But see* ME PUC at 8.

¹⁰⁰Commenters suggested that the definition of distributed resources will determine how widespread

cases illustrate this point. First, when a customer installs onsite generation that also is interconnected to the grid, that customer's demand for electricity from the grid is likely to become more price sensitive. Increased price sensitivity of demand for power from the grid can materially reduce market power of incumbent generators. Moreover, because the distributed generation is connected to the grid and produces more electricity than is consumed by its owner, it becomes a competing source of supply, not only for the owner, but also for other retail customers. Second, even in the case where the distributed generation is not interconnected to the grid, its existence reduces the total demand for electricity from the grid, and thus may increase incentives for retail suppliers to compete on price for remaining customers. Commenters suggested, however, that there are several difficulties in the effective deployment of distributed resources.¹⁰¹ These include (1) retail

tariffs that limit or prohibit such installations; (2) standby rate design structures that remove economic incentives; (3) the lack of interconnection standards ensuring access to the grid; and (4) problems encountered in siting distributed generation.¹⁰²

Most of the states that have implemented retail competition are involved in efforts to identify any technical, regulatory, and business practice requirements that appear to impede the interconnection of distributed resources to the distribution grid.¹⁰³ Other state commissions have approved a proposal to standardize and streamline technical requirements for interconnection to utility facilities.¹⁰⁴ NEMA agreed and suggested that standard interconnection contracts, standard interconnection requirements and standardized approval processes are needed for interconnection.

3. Reserve Requirements

Many states and FERC have struggled with how to ensure adequacy of generation reserves in competitive wholesale and retail markets. The primary concern is over whether there is sufficient generation to meet retail demand. This is particularly acute in electricity markets

their deployment is. If the definition includes large combustion turbines or very small internal combustion generators that operate independently of the grid for back up purposes, distributed resources are already quite prevalent, but their extended use may be limited by environmental concerns. If the definition is limited to small onsite wind generators, and photovoltaics (PV), there are many facilities, but little total generation capacity. Other technologies, fuel cells and microturbines are in early stages of commercial production and because of cost or connection standards are not a significant presence on the grid at this point in time. NRECA at 17. Onsite electricity storage devices are also a development that can shift demand from peak to off-peak periods. These devices are classified as distributed resources, but not as distributed generation.

¹⁰¹Regulators in Texas, California, and New York have taken steps to develop and implement distributed generation connection standards that will remove much of the discretion that distribution companies have had in the past concerning the terms and conditions for

connecting customer-owned generation to the distribution grid. See Comment of the Staff of the FTC Bureau of Economics, Public Utilities Commission of the State of California, Docket No. R.98-12-015 (Mar. 17, 1999).

¹⁰²Enron at 10, Exelon at 34, MidAmerican at 10, NRECA at 18, NEMA at 20, and Shell at 21.

¹⁰³PA PUC at 54, ME PUC at 10.

¹⁰⁴NYPSC at 26, TX PUC at 19.

because of the lack of inventory to meet unexpected demand. Alternative suppliers have asserted that state efforts to address these issues have reinforced, rather than mitigated, the advantages incumbents already have and, thus, have impeded efficient entry into retail (and, by extension, wholesale) markets.

Prior to restructuring, states required utilities to develop plans for new generation sufficient to meet expected growth in demand. Utilities also engaged in generation reserve sharing, which acted as an insurance product if unexpected demand materialized. Reserve sharing allowed the utilities to have enough reserve capacity available if for some unpredictable reason (*e.g.*, a storm or unplanned generation plant outage), the utility did not have the generation to meet the volume of electricity demanded. A number of commenters suggested that in competitive markets, reserve sharing among competitors, outside of contractual arrangements, may not work.¹⁰⁵

One of the products that is now traded in wholesale electricity markets that serve some states with retail competition programs is an “installed capacity” (ICAP) product.¹⁰⁶ The wholesale markets in the Northeast require all suppliers that serve retail customers to have surplus generating capacity under contract, as insurance for each wholesale trade they make. If an alternative supplier or marketer owns no generation, it can purchase installed capacity credits from others (in an organized market) that have more than they need to satisfy the reserve

generation requirements. ICAP is designed to provide a steady revenue stream to help cover the fixed costs of owning a generator, and these payments encourage developers to build new generation.

One commenter claimed that, because price-responsive demand in wholesale electricity spot markets is absent, some markets have created installed capacity products that allow incumbent generators to be paid twice for the same product (*i.e.*, one payment for the energy from the plant and a second from having the plant actually “in the ground,” even if all of the capacity has been purchased).¹⁰⁷ This commenter further asserted that a separate capacity market is justified only in areas where there are impediments to a price-responsive demand.¹⁰⁸

Another commenter stated that a market without a reserve sharing mechanism or insurance equivalent can impede participation by smaller suppliers when prices and penalties for nondelivery rise. According to this view, in such a market, the higher reserve margins required of smaller competitors burden their participation because they disproportionately raise the smaller suppliers’ costs. This commenter argues that ICAP has not worked well, and that utilities terminate reserve sharing agreements as they get bigger and rely on their own self-insurance, creating difficulties for new competitors.¹⁰⁹

Policies that may once have been necessary to ensure adequate generation reserve capacity

¹⁰⁵See, *e.g.*, ME PUC at 9.

¹⁰⁶See Chapter III for a complete discussion of how wholesale electricity markets operate.

¹⁰⁷ELCON at 8.

¹⁰⁸*Id.*, see also Chapter III for a discussion of importance of price-responsive retail demand.

¹⁰⁹TAPS at 9-10.

when regulation governed the electricity industry may be inappropriate in competitive markets. Accordingly, states may wish to evaluate whether policies that govern generation reserves in electricity markets may inadvertently be hampering competitive retail and wholesale markets.

D. Conclusions

- For all of the expected benefits of retail competition to be realized, it is imperative that wholesale markets be competitive. Effective wholesale and retail competition will mutually reinforce each other, thus combining to bring benefits to retail customers. If more distant generators cannot compete effectively with local generators, or electricity marketers cannot obtain generation services, because of problems obtaining transmission service, and there are entry barriers to building new generation, local generators may be able to exercise market power.
- As wholesale and retail markets become regional, governing policies and jurisdictional approaches also must move in that direction for wholesale and retail competition to be successful.
- Independent and nondiscriminatory, open access to the transmission grid is essential for effective wholesale competition. Independent operation of the transmission grid not only ensures nondiscriminatory service and rate treatment, but also helps to ensure impartial interconnection rules for electricity generators to connect to the transmission grid.
- In states that have implemented retail competition, transmission services should be priced the same, regardless of whether transmission services are bundled with generation services in wholesale or retail sales or whether transmission services are sold separately in wholesale or retail sales. Providers of standard offer service should not have preferential access to the transmission grid in markets with retail competition. Transmission pricing should include a congestion component. Locational marginal pricing is an appropriate approach for pricing transmission congestion in an efficient manner unless an alternative is shown to be superior.
- A regional entity with state involvement, or FERC, should have transmission siting authority. The entity would have the power of eminent domain. Such an entity could be the RTO that will manage the transmission grid in any one region, provided its scope is broad enough and it is subject to state involvement and FERC oversight.
- States generally have sufficient authority over generation siting; however, with the emergence of retail competition and the regional scope of wholesale electricity markets, states should eliminate “need” requirements for generation siting. In addition, uniform procedures across states governing how new generation capacity interconnects with the transmission grid may ease the addition of new generation capacity by reducing interconnection costs.

- Interconnection standards and retail tariffs relevant for distributed resources (including distributed generation) should be streamlined and made as uniform as practicable on a regional or national basis.
- States may wish to evaluate whether policies that govern generation reserves in electricity markets may inadvertently be hampering competitive retail and wholesale markets.

CHAPTER III SUPPLY AND DEMAND: THE SOUND OF ONE HAND CLAPPING

A. Introduction and Summary: Retail and Wholesale Customer Response Is Diluted Or Missing From Electricity Markets

Nearly every retail electricity market is missing one of the important components of effective market operation: variable pricing and rate information that allow customers to adjust the quantities they consume in response to rapid and substantial changes in wholesale prices of obtaining electricity. Variable pricing and rate information are important for a well-functioning market. Like other markets, electricity markets are comprised of groups of sellers and buyers seeking exchanges at mutually agreeable prices. Sellers respond to increasing prices by bringing more goods to the market, and to decreasing prices by bringing less. Buyers, on the other hand, respond to increasing prices by buying less, and to decreasing prices by buying more. Out of the interactions of these two groups emerge a price and output level for which the quantity supplied equals the quantity demanded (the so-called “equilibrium”).¹

Almost all retail customers in states that have implemented retail competition programs are charged average rates for electricity generation and marketing that are fixed during the transition period when standard offer service is mandated.² Fixed prices based on average costs

do not reflect the differing prices of obtaining electricity at differing demand levels during the course of the day and over the year as supply and demand conditions change. Most state retail competition plans do not facilitate the offering of variable pricing to customers through the use of real-time or time-differentiated price information and rates that would allow them to save money by reducing their consumption when wholesale prices are high (or by increasing their consumption when wholesale prices are low). As a result, electricity suppliers have increased incentives to raise prices to wholesale buyers above where they otherwise might be. This is true because wholesale buyers cannot respond to higher prices by reducing their purchases as long as their retail customers have diluted or non-existent price signals to induce them to reduce consumption when wholesale prices rise.³ It is insufficient to provide accurate price signals only to wholesale buyers (*i.e.*, retail suppliers), and not retail customers, because a wholesale buyer’s demand at any point in time is directly derived from retail demand of its customers. The direct relationship between wholesale and retail is strong because electricity cannot be stored practicably in large quantities. If retail customers instead face prices that reflect the retail suppliers’ prices for obtaining electricity in

retail rates, because they are based on regulated rates at the time the state introduces retail competition. *See* Chapter IV for further discussion of how fixed standard offer service prices can affect retail competition.

¹*See generally* EEI at 10-11.

²Under traditional state retail rate regulation, customers pay prices averaged over an extended period, often a year or more. In most states that have implemented retail competition, rates for standard offer service, which is offered to customers who have not chosen an alternative supplier, are even further removed from actual wholesale price variations than traditional

³Although accurate retail prices can assist in addressing potential supplier market power, the discussion in Chapter II regarding large geographic and product markets, as well as the policies discussed in Chapters IV and V regarding standard offer service pricing and lowering barriers to entry also address potential supplier market power concerns.

wholesale markets, equilibrium will more likely be reached in retail markets. Indeed, one commenter suggested that “the most significant shortcoming nationally has been the consistent implementation of market mechanisms on the supply side without creation of needed checks and balances of load response mechanisms.”⁴

One of the principal benefits of minimizing impediments to entry of retail suppliers (discussed further in Chapters IV and V) is that some retail suppliers are likely to offer real-time pricing and other innovative services to retail customers. Variable pricing is likely to provide significant system benefits (*e.g.*, reduced peak load consumption, lower prices, and greater reliability) by giving customers timely and accurate price signals to shift or reduce loads on the grid during periods when wholesale prices are high.

States have valued providing customers with stable bills as a consumer protection measure during the transition period to competition.⁵ Because variable pricing is absent, however, neither retail customers nor retail suppliers can react to price signals to govern their consumption. Consequently, the market is not brought into equilibrium because retail customers do not adjust their consumption of electricity to reflect the true price of supply. In other words, demand peaks may not be as high if retail customers paid the equilibrium price to obtain the electricity in the time periods when it is consumed.

The absence of accurate price information based

⁴MG at 7, *see also* IECP at 12-15.

⁵*See, e.g.*, PA PUC at 50-51.

on real-time usage also occurs in wholesale spot markets that support retail electricity markets. In wholesale electricity spot markets in California, New York, New England and the Mid-Atlantic states, buyers generally are able to participate in the market only to the extent of bidding quantities they need and then letting supply conditions set the price, rather than bidding both quantity and corresponding prices at which they will purchase their electricity supplies.⁶ And, as discussed above, wholesale market demand at any given time is derived from retail customers’ demand at that same time. Thus, it is important for states to adopt policies that will facilitate retail pricing that reflects real-time wholesale price changes. As a result, there would be less need for the consideration of price caps on wholesale sales of electricity, because market participants will be able to adjust their consumption according to the prices for wholesale power.

B. Policies That Increase Transparency of Market Signals in Retail Electricity Markets Are Vital to Effective Competition

Generally, retail customers are not charged prices that reflect the changing prices of obtaining electricity from wholesale markets at various times of the day and over the course of the year. As demand increases during the day, generation prices increase as more costly electricity is produced to meet peak demand. For example, nuclear power plants (which have low marginal costs per unit of electric power produced) are dispatched first to meet demand. The last generation units dispatched are typically older, oil or gas-fired peaking plants with high

⁶NRECA at 16.

marginal costs.

To date, none of the states that have implemented retail competition has permitted appreciable demand-side participation based on variable pricing and rate information that reflects real-time prices to obtain electricity from wholesale markets under various demand conditions.⁷ Retail customers generally see only a price that reflects the wholesaler's average price to obtain electricity, which can be based on, for example, a 12-month average.⁸ In addition, prices for standard offer service in most states are fixed during the transition to competition.⁹ Thus, customers are not charged variable prices that mirror changing wholesale prices during the day to guide their consumption decisions. Not surprisingly, then, customers have little incentive to consume more electricity during those hours of the day when it is less expensive for their retail supplier to obtain electricity or to reduce electricity consumption during those hours of the day when it is more expensive for their retail supplier to obtain it. Many states have valued providing customers with stable electricity bills, at least during the transition period, rather than exposing customers to potentially volatile wholesale prices, despite the fact that this decision may not produce a fully competitive market.¹⁰

⁷ELCON at 26-28.

⁸AREM at 13.

⁹Exelon at 32, New Power at 4. Standard offer service is the service that states have generally mandate that distribution utilities provide to retail customers that do not choose an alternative supplier. It is discussed extensively in Chapter IV.

¹⁰See, e.g., PA PUC at 50-51.

Average retail prices also diminish incentives to invest in new technologies and equipment (e.g., real-time meters, programable home appliances to operate at non-peak demand periods, and energy storage devices). Such devices, used in conjunction with variable pricing, provide both the incentive and the opportunity to shift some consumption of electricity from peak periods to off-peak periods. Average prices also mask incentives to install onsite generation equipment for use during peak demand periods (or whenever high wholesale prices make onsite generation attractive). Also, due to the use of average prices at the retail level, electricity suppliers with market power may be able to exercise it more readily at the wholesale level, because wholesale demand is derived from retail demand and retail customers have little incentive to consume less electricity when wholesale prices increase.¹¹

The approach that supplements variable pricing best by providing the most accurate, timely, and useful price information at the retail level is usage information based on real-time metering.¹² Usage information based on time-of-day metering also would improve the accuracy of price signals, but is unlikely to be as effective as real-time metering in light of the fact that time-of-day metering still involves averaging of extreme variability in wholesale prices. Both types of metering allow the meter to record the time period when electricity was consumed in addition to how much electricity was consumed.

Real-time meters use two-way electronic linkages between customers and suppliers that

¹¹MD OPC at 8-9.

¹²MidAmerican at 10, NEMA at 18.

allow the retail supplier to charge prices that echo changes in wholesale prices. These meters are commercially available, but may be expensive to install on a customized basis; their operating costs, however, may be lower than traditional meters, because real-time meters are generally “read” remotely through an electronic link rather than manually. Per unit costs are generally substantially lower if installation of real time meters is undertaken for an entire area. Real-time meters may be appropriate particularly for large users of electricity, such as industrial or commercial customers, which account for the majority of the nation’s electricity demand.¹³

Time-of-day meters are generally less expensive to buy than real-time meters and also can provide more accurate price signals than most existing meters, but to a much lesser extent than real-time meters. Time-of-day meters record how much electricity was used during a discrete time period (*e.g.*, between 7 a.m. and 6:59 p.m.) over a billing cycle.

Variable pricing, based on the time-of-day use, is similar to pricing for long distance telephone service. For example, long-distance prices during week nights and weekends are generally cheaper than rates for service between 7 a.m. and 7 p.m., Monday through Friday. Similar customer offers could be made by retail suppliers if customers had access to time-of-use meters to record their electricity consumption patterns.

Several electricity suppliers suggested that “customers should be encouraged to replace existing, antiquated meters with advanced

¹³NYPSC at 24-25.

meters that measure usage electronically on a real-time basis.”¹⁴ Customers who choose alternative electricity suppliers might then be able to reduce their total electric bill by shifting consumption to off-peak periods. This would benefit not only the customer, but would also improve reliability for the whole system by reducing peak loads and might reduce overall system costs by reducing the need for high-cost peak generation.

Very few customers have real-time or time-of-day meters.¹⁵ In addition to cost considerations, this may reflect the fact that very few states have opened up metering services to competition. Some states, such as Massachusetts, have determined that subjecting metering services to competition would not be in the public interest.¹⁶ Alternative suppliers have contended, however, that if metering services are not open to competition, they cannot offer creative service offerings, such as variable pricing, that retail competition can provide.¹⁷

Other states have indicated that they determined to mandate the use of average prices (rather than time-sensitive prices) for standard offer service as a consumer protection measure during the transition period.¹⁸ These states decided that

¹⁴Shell at 20.

¹⁵Exelon at 32.

¹⁶Massachusetts Department of Telecommunications and Energy, DTE 00-41, Legislative Report (Dec. 29, 2000).

¹⁷AREM at 12, New Power at 8-9, NEMA at 6, Shell at 11-12 (incumbent control of metering and billing is problematic).

¹⁸PA PUC at 50-51.

customers should be insulated from market signals through the use of average prices for standard offer service, although transparent market signals likely would reduce customer usage during peak demand periods and, thereby, reduce average costs of acquiring electricity for standard offer service customers. The underlying goal of such a policy appears to be to ensure rate stability to customers during the transition period. It does not necessarily follow, however, that exposing customers to variable prices and real-time metering is necessarily incompatible with stable customer bills.¹⁹ With variable retail pricing that reflects underlying real-time wholesale prices, retail prices sometimes will be higher than the average price and sometimes lower. The aggregate bill rendered under variable pricing could be higher, lower, or the same as the bill for the same individual customers under average pricing.²⁰ A customer's bill will tend to be lower to the extent that the customer consumes less electricity than average when the real-time price is high. And

some customers may be able both to consume more total power and pay less in total when they shift consumption from high price hours to low-price hours.

Until customers have the ability to participate effectively in retail markets through variable pricing in conjunction with sufficient and transparent price information, retail markets cannot operate efficiently, and thus are less likely to be fully competitive. Wholesale markets also are more likely to fall short of being fully competitive because of market power problems. Variable pricing and installation of real-time or time-of-day meters along with time-sensitive rates are two measures that can increase the demand-side responsiveness in retail (and wholesale) electricity markets.

C. States That Have Implemented Retail Competition Programs Have Not Yet Permitted Retail or Wholesale Customers to Participate Effectively in Wholesale Electricity Markets

None of the restructured wholesale markets (California, New York, New England and the Mid-Atlantic states) allow retail or wholesale buyers to participate through flexible supply and pricing requests in wholesale electricity spot markets, although as discussed below, these markets are starting to allow such participation. Some commenters suggested that the rules of currently restructured wholesale spot markets favor supply increases, rather than demand reductions or shifts in consumption timing, as the initial response to capacity shortage situations.²¹ Comparable rules do not exist across the board to provide the same incentives

¹⁹Testimony of Severin Borenstein, United States Senate Committee on Governmental Affairs, Hearing on Economic Issues Associated with the Restructuring of Energy Industries (Jun 13, 2001) at 16-19. Other things remaining constant, real-time pricing and average pricing will yield the same revenue to a utility over a regulatory ratemaking cycle and averaged over all customers, if the regulated rate is based on the real-time price averaged over the rate making cycle.

²⁰*Id.* The effect of average pricing is to protect customers that impose higher costs on the system (disproportionately using electricity during peak demand periods, for example) from paying for the incremental costs they impose on the system. Conversely, customers that impose lower costs on the system (disproportionately using electricity during off-peak periods, for example) are prevented by average pricing from being rewarded for consuming less during periods when wholesale prices are high.

²¹ELCON at 9, IECP at 13.

and opportunities for demand reductions or other demand-side responses during capacity shortage periods. Enhanced demand-side response can be expected to moderate wholesale spot market prices and price volatility, as well as improve reliability for electricity.²²

Some industrial users claimed that the lack of demand-side response has occurred because FERC has left development of demand responsiveness to the states and to the market operators, because it did not recognize the important role of retail demand price sensitivity (elasticity) in curtailing market power in wholesale markets.²³ Others asserted that efforts to institute demand-side measures have been opposed by generators and transmission/distribution companies that benefit from inflexible demand.²⁴ For example, Industrial Customers contended that the governance structure of wholesale market operators does not contain sufficient numbers of end-use customers, resulting in demand-side response policies being given short shrift by market operators dominated by suppliers and transmission owners.²⁵

Commenters suggested that increasing the elasticity of demand bid into wholesale spot markets would be a critical short-term measure to moderate market power that may be exercised in such markets.²⁶ To understand how this

would work, it is important to understand how wholesale spot markets operate.

Electricity is bought and sold at the wholesale level in hour (or smaller) blocks of time. Restructured wholesale electricity spot markets in New York, New England, and the Mid-Atlantic states generally trade two types of products: energy and ancillary products, which are used to ensure reliable operation of the transmission grid. For example, each wholesale market operator (the ISOs in New York, New England, and the Mid-Atlantic states) maintains a spot market that facilitates trades for energy (*i.e.*, a supplier will purchase a certain number of megawatts for a particular hour (*e.g.*, 2 p.m. to 3 p.m.) to meet expected demand because the supplier cannot generate enough electricity itself to meet that demand). In addition, these markets facilitate trades, on an hourly basis, of ancillary products that ensure reliable operation of the transmission grid. For example, “spinning reserves” are used to ensure that if additional generation capacity is needed to meet a supply shortfall, it can be brought onto the system in a short amount of time.

In these three markets, energy and ancillary products are generally traded on a spot market for day-ahead and hour-ahead power needs. The energy and ancillary product markets in each of these areas are largely served by the same generating units. The result is that the rules for pricing, bidding and settlement for any one market can affect the price and quantity bid into any of the other markets. In addition to operating the spot markets, the ISOs in New York, New England and the Mid-Atlantic states also operate and control the transmission grid in the area.

²²IECP at 13.

²³ELCON at 26, IECP at 13.

²⁴ELCON at 27, IECP at 13-15, MG at 11.

²⁵IECP at 13-15.

²⁶ELCON at 27, IECP at 12.

In California, the California legislature created two institutions to operate wholesale markets. The first was the California ISO, which is responsible for operating, and ensuring the reliability of, the major part of the transmission grid in the state, as well as for managing auction markets for real-time energy and for certain ancillary products.²⁷

The second institution was the Power Exchange (PX), which was independent of the ISO, and operated auction markets for day-ahead and hour-ahead energy. The California PX has filed for bankruptcy following FERC's decision to remove the requirement that the major IOU's in California use the PX's spot market to buy and sell all their electric power.²⁸ At the time of this writing, California power purchases are predominantly arranged through longer-term contracts with substantial state involvement.

In each of these four regional spot markets, it is generally the case that purchasers can submit bids only for the amount of electricity they would need to satisfy their retail demand obligations. They are unable to bid varying quantities and prices. Rather, they can bid only quantities, and they must pay the price at which the market clears for the quantity that they bid.

²⁷Ancillary products in California include spinning reserve, non-spinning reserve, regulation reserve, and replacement reserve. Each of these four products is used to various degrees to ensure that if additional generation capacity is needed to meet a demand shortfall, the electricity can be brought onto the system in a short amount of time. For example, spinning reserve may be available on shorter notice than non-spinning reserve.

²⁸FERC, Order Directing Remedies for California Wholesale Electric Markets, Docket Nos. EL00-95-000 (Dec. 15, 2000).

Suppliers, by contrast, bid the amount *and* price for which they are willing to sell electricity.

If wholesale buyers, whether they are large retail users or retail suppliers that serve retail customers, were able to bid the prices they are willing to pay for varying amounts of generation supply at wholesale, a significant amount of demand might be curtailed or shifted to other time periods when wholesale prices increase. This will not occur, however, until retail demand is more price-responsive, because wholesale demand is nearly entirely derived from retail demand.

There are two possible ways to allow retail suppliers and large retail customers to participate in wholesale spot markets. The first method requires the operators of the wholesale spot markets to redesign auctions that occur in the market to allow suppliers and customers to bid variable price and quantity data for each given time period. This would entail modification of the current auction rules and the corresponding software used to conduct the auction. Rather than redesign the auction process, the second method allows retail customers to participate in wholesale spot markets as "suppliers."²⁹ It is likely that only

²⁹Such participation relies on the concept that a reduction in consumption by a retail customer is equivalent to an increase in generation by a wholesale generator. In this capacity, the supplier or customers acts as though it is a supplier in a wholesale spot market. For this to work, the operator of the wholesale spot market must establish a baseline of consumption for each participating retail customer so that the supply bid into the wholesale market to reduce retail consumption can be quantified. The opportunity to bid in reductions in consumption on a real-time basis and to receive wholesale market rates for such reductions gives the customer incentives equivalent to real-time pricing. The

large, sophisticated retail customers will actually participate in wholesale electricity spot markets.

A benefit of a “price-responsive” demand will be that it effectively caps the market price at the level at which load is willing to be interrupted. In other words, price-responsive demand bidding cannot prevent the possibility of capacity withholding by generators, but it can reduce the effect of any such withholding on the market price, and thus reduce the profitability of withholding and incentives to withhold generation.³⁰

Increased use of interruptible contracts, by not only electricity suppliers, but also by large retail customers, also may facilitate demand-side responsiveness to price changes. Similarly, policies that allow participation in wholesale markets by large retail customers allow these customers to manage directly their load requirements in response to real-time wholesale electricity prices.³¹

A number of wholesale spot markets have just begun, or are about to begin, to allow wholesale suppliers and large retail customers to bid as

suppliers into regional wholesale markets for electricity.³² For example, the PJM ISO, which serves the Mid-Atlantic states, is trying to develop and implement a system to allow price-responsive demand to be bid into the energy market.³³ The Pennsylvania commission also has recently approved a large retail customer demand-response tariff for one of the utilities operating in the state.³⁴

ISO New England is experimenting with an “Enhanced Load Response Program” that responds to fluctuations in the wholesale spot prices of the regional market.³⁵ In addition, FERC recently approved a demand-side bidding plan that allows ISO New England to compensate large retail customers in the region for interrupting load during power shortages.³⁶

The New York commission has approved tariff-based programs that provide incentives to curtail load due to potential shortages. It is now working with NYISO to implement such programs in cases of high prices or supply disruptions.³⁷ In addition, some states have approved some load curtailment programs that allow large customers to curtail usage in

benefit of this approach is that the market operator does not have to rework the auction process (rules and software) as extensively as under the first option.

³⁰MD OPA at 8. *See also* Stephen J. Rassenti, Vernon L. Smith, and Bart J. Wilson, “Demand-Side Bidding Will Control Market Power, and Decrease the Level and Volatility of Prices,” manuscript, University of Arizona (Feb. 2001). Even if demand is not price-sensitive, it is important to note that in situations where the unilateral and coordinated exercise of market power are unlikely, efficient short-term equilibrium pricing should still prevail without real-time retail pricing.

³¹NYPSC at 24-25.

³²EEl at 10.

³³MD OPA at 8.

³⁴Pennsylvania PUC, Docket No. R-00016402 (May 24, 2001); *Electric Power Daily* (May 29, 2001).

³⁵ME PUC at 9.

³⁶*Electric Power Daily* (May 17, 2001).

³⁷NYPSC at 24-25.

exchange for financial incentives.³⁸

Large retail customer participation in wholesale markets, coupled with variable retail pricing, would benefit all retail customers, because the average price paid by all customers decreases as peak demand is reduced. These programs increase system reliability, mitigate the potential for price spikes during periods of peak demand and supply scarcity, and increase the opportunity for retail suppliers to add value to commodity reselling, as well as indirectly reduce the environmental impacts of electricity production.³⁹ Moreover, real-time, demand-side participation by wholesale buyers and large retail customers of electricity can potentially mitigate existing electricity supplier market power and increase incentives to attract customers by lowering prices.

D. Conclusion

- So far, neither retail nor wholesale markets for electricity generation encourage effective demand-side responses. Generally, retail customers do not have price information and time-sensitive rates that reflect the changing price of obtaining electricity at various times of the day and over the course of the year. Prices are likely to be lower and reliability is likely to improve if more customers have time-sensitive rates and timely and accurate price information. With these things, customers can make better consumption and investment

decisions that determine an efficient market equilibrium for electricity services. Increasing the price sensitivity of demand also will help to constrain existing or potential market power in generation. This is true because a price increase will be less profitable for generators if it is passed through and retail buyers respond by reducing their consumption by a significant amount.

- Real-time meters, which use two-way electronic linkages between customers and suppliers to allow the retail supplier to charge prices that echo changes in wholesale prices, provide retail customers with instantaneous information about prices, and record not only the amount of electricity used, but when it is used (especially for industrial and large commercial customers). State policies that eliminate barriers that limit the ability or incentive of electricity suppliers to offer variable pricing through the use of real-time meters are likely to increase the demand-side response. Real-time pricing will help alleviate market power concerns and reduce the fluctuations in quantity demanded. Seasonal and time-of-day pricing differences also will increase the demand-side response, but not as effectively as real-time metering and pricing.
- In conjunction with variable pricing for generation services, retail suppliers should be permitted to offer competitive metering and billing services to their customers. Such competition would encourage the development of innovative new services (*e.g.*, real-time pricing).

³⁸ICC at 30, MI PSC at 14, NJ Ratepayer at 12, NYPSC at 24-25, PA PUC at 51-52.

³⁹*See, e.g.*, EEI at 10-11.

- At present, in most organized wholesale spot markets, retail electricity suppliers bid only quantities, not prices. This characteristic should be modified to permit buyers to bid a variety of combinations of price and quantity so that wholesale prices are not established solely by sellers' supply offers. Because wholesale supplier demand is derived from retail demand levels, this policy will be most effective when retail customers are provided accurate and timely price information and real-time rates so that they can adjust their consumption according to price changes. These varying levels of retail demand can then be passed on to retail suppliers so that they can participate in wholesale spot markets in a more effective manner. Currently, most wholesale spot markets do not allow retail customers to participate directly as suppliers at all.

CHAPTER IV STANDARD OFFER SERVICE PRICING HAS A SUBSTANTIAL EFFECT ON ENTRY OF NEW RETAIL SUPPLIERS

A. Introduction and Summary

Economic theory and antitrust experience emphasize the nature of entry conditions as an important aspect of effective competition.¹ Entry conditions are particularly important when structuring a transition from state-franchised, local monopolies to a competitive marketplace. Some means must be chosen to facilitate the long-run, efficient entry of entities to compete with the incumbent in both generation and retail marketing. One option would be to break up existing generation assets to form two or more generation companies, as the United Kingdom eventually chose to do. At the retail level, states generally have relied on new entry by electricity marketers or utilities expanding beyond their franchised territory to reduce concentration in existing electricity markets in the U.S. Some states such as California, Maine, Massachusetts, and New York have ordered or encouraged utilities to divest generation assets to obtain a market-based assessment of stranded costs,² but

¹There is an extensive empirical and theoretical literature on entry and entry barriers. Text treatments include, for example, Dennis Carlton and Jeffrey Perloff, Modern Industrial Organization, (2nd Ed., Scott, Foresman & Co., 1994); Douglas F. Greer, Industrial Organization and Public Policy 3rd Edition, Chs. 9-10 (New York: Macmillan, 1992); F.M. Scherer and David Ross, Industrial Market Structure and Economic Performance 3rd Edition, Chs. 10, 17 (Boston, Houghton Mifflin, 1990). The Department of Justice and Federal Trade Commission Horizontal Merger Guidelines also focus on entry and its implications for competition.

²Divestiture establishes a market-based assessment of the value of generation assets. This value can then be subtracted from the undepreciated book value of the divested assets to establish the level of stranded costs, if any, associated with these generation

these divestitures have generally not required that a utility sell its assets to more than one company. Other states, such as Texas, have limited the market share that any one generation company can hold in a region.

Entry is at the heart of an effective transition to full competition. As discussed below, however, there are significant entry barriers that can impede entry into retail electricity markets.³ Without actual entry,⁴ customers have no choices among competing prices, and incumbents have few incentives to broaden or improve the services they offer. As discussed in Chapter I, many states have initiated retail competition with the expectation that competition, prompted by entry from new competitors, will bring both competitive pricing and new services to customers, such as real-time pricing, as discussed in Chapter III.

Retail entry in a local area can occur by means of an unregulated affiliate of a distribution utility, new generation facilities being built in the area, generation from distant facilities that is transmitted through transmission lines (*e.g.*,

assets.

³Several entry barriers are discussed in this chapter, including the problem of nondiscriminatory access to transmission, which also was discussed in Chapter II. Certain retail supplier requirements, the inherent difficulties of educating consumers about available choices in retail electricity markets, and any cross-subsidization between regulated and unregulated operations of the distribution utility also pose entry barriers. These issues are discussed in Chapter V.

⁴Potential entry also may constrain prices if it is timely, likely, and sufficient as described in the Horizontal Merger Guidelines.

incumbent utilities expanding outside of their franchise territory), or generation resold by electricity marketers. Construction of new generation does not occur instantaneously, so retail entry by distant generators and electricity marketers may take place quicker if they have nondiscriminatory access to the transmission system. Lack of such access, as discussed in Chapter II, creates a barrier to retail entry.

Comments suggested that the state policies that most significantly affect entry into local retail markets include how standard offer service is priced and how standard offer service providers and other suppliers can obtain necessary supplies to meet their obligations. Standard offer service is provided to customers who do not select an alternative generation service provider or whose supplier has exited the market.⁵ In most states, the price that the distribution utility must charge for standard offer service is established by regulation and “fixed” – that is, it generally does not vary with increases or decreases in wholesale prices. The distribution utility is not permitted to offer a price lower or higher than the regulated standard offer service price, and thus the distribution utility’s price remains regulated, even as new entrants are allowed to compete against its price. In most states, unregulated affiliates of the distribution utility may offer generation services that compete with the standard offer service. States have generally

⁵We have used the term “standard offer price” to include the costs of generation, transmission and distribution services. Some states have termed the firm that provides standard offer service as the default service or provider of last resort. In some states, the term “provider of last resort” applies only to service for customers whose designated alternative service provider has exited the market. *Green Mountain* at 3, n. 1.

linked the duration of standard offer service to the time period during which incumbent utilities are permitted to recover their stranded costs.

A key policy decision affecting competitive performance in retail electricity markets is how the generation portion of standard offer service is priced.⁶ Many states denote this as the “price to compare” or the “shopping credit.” The shopping credit is the main component of the standard offer service price. The shopping credit is important because it is the price that new suppliers, including unregulated affiliates of the distribution company, must compete against if they are to attract customers. It also represents the amount that the customer avoids paying when the customer chooses an alternative generation service provider, because the customer now pays the alternative electricity supplier’s charges for generation services. Industry participants refer to the difference between the price to compare (or shopping credit) and the entrant’s costs as “headroom.” Thus, large headroom, which represents prospective profit margins, is a primary incentive for alternative retail suppliers to enter the market.

There are several reasons why the magnitude of headroom may be insufficient to attract entry of a supplier that is at least as efficient as the supplier of standard offer service. First, in many states, the shopping credit is fixed regardless of wholesale prices; this may shift so much risk to

⁶The state will continue to regulate the price for transmission and distribution services, regardless of whether a customer chooses an alternative electricity supplier or is provided service by the standard offer service provider. Often states have capped the rates for transmission and distribution services during the transition period.

suppliers that entry is unattractive at that price. Second, the shopping credit may not fully reflect the avoided costs of the standard offer supplier. Third, licensing and other regulatory costs facing new suppliers may be high enough to discourage entry (these issues are discussed in Chapter V).

Recent wholesale price increases in many cases have eliminated the margin between an entrant's wholesale costs for electricity and the shopping credit, thus eliminating headroom. The common result appears to be a lack of entry by alternative retail suppliers in some states such as Arizona, Maine, Maryland, Massachusetts, New Jersey, and Ohio, and some exit of earlier entrants in other states such as Pennsylvania. High wholesale prices also have caused some standard offer service providers (e.g., certain of the distribution companies in California and Pennsylvania) to make unprofitable sales of standard offer service.

It is unclear at this time whether the policy choice of providing standard offer service has yielded significant consumer benefits.⁷ Because the shopping credit continues to be a regulated price that does not necessarily reflect underlying wholesale prices (see Chapter III), it is doubtful that this price truly reflects a competitive market price for generation services. Thus, effective competition may not yet have taken hold in any state, because the price against which retail suppliers are competing is artificial. In light of these issues, during the transition period, states may wish to engage in pilot programs that test

⁷Allegheny and ELCON note a more general concern that standard offer service will insulate customers from price signals to such an extent that markets will not be able to develop. Allegheny at 5, ELCON at 22.

various methods of ensuring that customers have reliable and competitive electricity service. Such programs could provide valuable information to states about how best to structure the movement from the current transition period to full competition once stranded costs have been fully recovered.

B. The Price of Standard Offer Service Can Significantly Affect Entry

One of the most critical policy decisions states make in implementing retail competition plans is how to ensure that electricity is provided on a stable basis to customers that do not or cannot choose an alternative electric power supplier. All states that have implemented retail competition programs have developed a standard offer service for residential and small commercial customers to ensure this policy goal is met. Often the price for standard offer service is fixed so that residential customers have access to this essential service during the transition period at a price no higher than they were paying before retail competition began. In most states, but not all, during the transition period the standard offer service is provided by the franchised distribution company in the area.

Standard offer service has typically been structured to resemble the pre-restructuring rate design that was used by the utility. In other words, when states have unbundled generation services from transmission and distribution services, they have done so in a manner that preserves historical rate design. This generally has preserved relative rate differences between classes of customers.⁸

⁸See ME PA, Attachment at 4.

1. Policy Elements Affect the Pricing of Standard Offer Service

The comments suggested that competitive market performance in retail electricity markets is dependent on how the shopping credit is priced. This price is important because it is the price that new suppliers must compete against if they are to attract customers.⁹ The policy challenge that states face is how to establish the shopping credits at levels that encourage entry by efficient suppliers to provide effective competition to standard offer suppliers (usually the incumbent distribution utility) without setting the level so high as to encourage inefficient entry or to make service unaffordable to those customers who are unable to secure service elsewhere.

Although there was general agreement among commenters that the shopping credit should equal the costs that the distribution company (or other supplier of standard offer service) avoids when a customer selects an alternative service provider, there were many disagreements as to how to calculate avoided costs. In general, alternative suppliers favored more inclusive definitions of avoided costs. For example, the National Energy Marketers Association urged that standard offer prices equal the utility's fully embedded costs, including cost differences between classes of customers (such as those reflecting differing usage profiles). Alternative suppliers emphasized that failure to include all of a utility's avoided costs in calculating the shopping credit results in alternative suppliers'

⁹Suppliers also may attract customers by offering superior service or distinct products.

customers paying twice for the same services.¹⁰

Comments from the association of investor-owned utilities, the Edison Electric Institute (EEI), focused on the opposite concern. It contended that excessive shopping credits subsidize inefficient entry. EEI stated that the correct approach is to establish shopping credits equal to the costs the utility avoids (*i.e.*, incremental avoided cost) when a former customer selects an alternative service provider. EEI suggested that some states deliberately established shopping credits in excess of this level.¹¹ By contrast, Exelon, a firm that includes both a distribution utility subsidiary, with franchise areas in Pennsylvania and Illinois, and a subsidiary that is a new entrant in other states' retail markets, favored a broader formulation for the shopping credit that would include customer acquisition and administrative costs.¹²

Many comments pointed out that setting a shopping credit too low creates a deterrent to

¹⁰AREM at 8-10, Green Mountain at 3-4, NEMA at 6-8, New Power at 3-4, and Shell at 11-13 and 15. For example, New Power suggested that if an alternative electricity supplier bills its customers for generation services, the utility should be required to reduce its billing fees to distribution customers in light of the fact that these costs no longer are used to support the customer that has chosen an alternative supplier. New Power noted that the same is true for a utility's costs to support customer call centers, the utility's cost of procuring power, and certain transmission costs -- none of which are used by the customer that has chosen an alternative supplier. New Power at 3. *See generally* NAFC at 5-27 (how cross-subsidization distorts the competitive process).

¹¹EEI at 3.

¹²Exelon at 21.

efficient entry.¹³ This result is especially the case where the shopping credits are set at fixed price levels during the transition period.¹⁴ Where retail prices that efficient entrants are able to charge are below wholesale prices, for example, there is no incentive for otherwise efficient entrants to enter. Entrants offering services comparable -- but not superior -- to those available at the shopping credit rate may not be able to attract customers due to customer inertia, unless they offer a discount off the shopping credit rates.¹⁵ Thus, the level of the shopping credit serves as a cap on the prices entrants are likely to be able to charge.¹⁶

By contrast, several commenters identified Pennsylvania as the best example of a successful customer choice program and attributed this to

greater initial headroom for entrants.¹⁷ Ample headroom also is at the core of the overwhelming customer interest in the retail competition pilot programs in Texas, where full retail competition does not begin until January 1, 2002.¹⁸

Comments identified three policy decisions as having significant effect on pricing of the shopping credit. These include whether to pass through increases and decreases in wholesale energy prices to retail customers, the length of the stranded cost recovery period, and initial price reductions for certain customer classes. The cost of wholesale electricity, along with other wholesale market issues, is discussed in Section D, *infra*.

a. Pass Through of Fuel and Other Costs of Generation

The first of these policy decisions is whether changes in fuel and other costs of generation should be passed through the shopping credit to customers. During the first six months of 2001, substantial increases in fuel costs (other than coal) have been experienced nationwide, and these fuel price increases have been reflected in wholesale electric power price increases.¹⁹ In

¹³Allegheny at 5, AREM at 8-9, Cleco at 4, EEI at 13, Enron at 6-7, Green Mountain at 4, IURC at 3-4, Mercatus at 13-14, MI PSC at 7, MidAmerican at 5, NARUC at 9, NEMA at 7, NJ Ratepayer at 8, New Power at 3-4, NYPSIC at 13, PA OCA at 18, RPPI at 19-20, Shell at 10-11, and TX PUC at 11.

¹⁴California had a maximum transition period of four years whereas the duration of Pennsylvania's transition period varies by utility and are approximately 8 to 10 years. ME PA, Attachment at 9-10, 13-14.

¹⁵Allegheny at 5-6, Enron at 5-7, Exelon at 20, ICC at 18, MI PSC at 7, ME PA at 14, NJ Ratepayer at 6-7, and Shell at 10-13. *See generally* NAFC at 7-8 and 12, (analogizing regulated below cost rates for standard offer service as government authorized predation).

¹⁶*See, e.g.*, EEI at 13, ELCON at 22, MidAmerican at 5, NARUC at 9-11, NJ Ratepayer at 8, and New Power at 3-4. A notable exception may be electricity produced from renewable resources for which some customers may be willing to pay a premium.

¹⁷*See, e.g.*, Allegheny at 5, Enron at 6, Exelon at 21-22, Mercatus at 10, 12-14, and RPPI at 4-8. As discussed above, initial success in Pennsylvania is at risk due to wholesale price increases coupled with regulated fixed standard offer prices. CAEM at 3-6.

¹⁸TX PUC at 11.

¹⁹For example, Atlanta Gas Light reports that wholesale gas prices for the winter of 2000 were \$4.44 per million BTU (British Thermal Units) compared to \$2.39 a year earlier. <www.atlantagaslight.com/faq.html> Other generation

states where the shopping credit is fixed at a set price level,²⁰ increased wholesale prices have eroded or eliminated any incentive to enter²¹ because headroom has been eliminated. In addition, the standard offer service provider has been required to sell electricity unprofitably. When the existing retail competition programs with fixed standard offer prices were being developed, the trend was toward lower wholesale prices. If that trend had continued, the deterrence to entry and the financial difficulties of distribution utilities providing standard offer service likely would not have been as severe.

Commenters characterized capped or fixed shopping credits under current circumstances as “regulated non-market-based rates.”²² Commenters noted that capped shopping credits have squeezed entrants’ margins and caused

some alternative service suppliers to withdraw from the market or go bankrupt in affected states.²³

The statistics on customers and load served by alternative service providers for the individual states reflect this squeeze on headroom – at first, the statistics showed growth in customers and load served by alternative service providers, but, after wholesale prices rose significantly, the number of customers served by the alternative suppliers declined as the gap between their rising prices and shopping credits shrank and often turned negative.²⁴ In Pennsylvania, for example, which set relatively high shopping credits for residential customers, switching statistics show a steady increase in customers served by alternative suppliers up until wholesale prices increased significantly in early 2001.

costs have increased as well, *e.g.* pollution credits in California.

²⁰Commenters reported that standard offer rates are fixed in most states. Exceptions are: Maine, where standard offer service is bid out (ME PUC at 6); Massachusetts, where increases in fuel and purchase power prices are passed through to consumers (ME PA, Attachment at 5-6); New York, where rates are adjusted for costs through a rate making process of less than 11 months (NYPSC at 15-16); and Texas, where standard offer service providers can adjust their rates based on changes in natural gas prices. TX PUC at 15. The Michigan and Texas restructuring statutes allow the state commission to relax caps on standard offer service rates if it determines that effective competition is taking place. MI PSC at 8-9, TX PUC at 3.

²¹*See, e.g.*, MidAmerican at 5.

²²*See, e.g.*, Enron at 5-6, MidAmerican at 5. Rhode Island and Massachusetts reportedly have increased standard offer rates recently to better reflect increases in wholesale prices. RPPI at 8-9.

²³ Exits of alternative service providers have occurred in several states. Allegheny at 5, CAEM at 4, Exelon at 20, MidAmerican at 5, PA PUC at 29, NJ Ratepayer at 6, and NYPSC at 13. No withdrawals have yet occurred in Maine. ME PUC at 5. Two withdrawals are pending in Illinois. ICC at 15. One alternative service supplier dropped much of its load, but did not exit in Michigan. MI PSC at 7.

²⁴*See* Appendix A, Pennsylvania Profile for statistics showing the percentage of residential demand (load) that is served by alternative suppliers on a company-by-company basis.

Table 1. Pennsylvania Switching Activity

Number of Residential Customers served by Alternative Supplier									
Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01
316,367	356,865	383,557	408,414	429,670	444,154	459,029	473,852	454,818	350,914

% of Residential Customers served by Alternative Supplier									
Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01
6.8%	7.6%	8.3%	8.7%	9.1%	9.6%	9.7%	11.2%	9.8%	7.3%

Note: PECO figures exclude residential customers assigned to competitive discount services.

Source: Pennsylvania Public Utility Commission

In Massachusetts, switching statistics for residential customers illustrate the difficulties caused by a squeeze on headroom and a low shopping credit. Not only has there been little residential customer switching, but the customers that did switch started to return to the

standard offer service provider in early 2001. Recognizing the squeeze on headroom caused by rising fuel prices, the Massachusetts commission increased, effective July 1, 2001, certain utilities' standard offer service rates.

Table 2. Massachusetts Switching Activity

Number of Customers Served by Alternative Suppliers									
Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01
1,278	1,831	1,854	1,944	2,041	2,439	2,793	3,028	1,017	1057

% of Customers Served by Alternative Suppliers									
Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01
< 1%	<1%	< 1%	<1%	< 1%	<1%	< 1%	<1%	< 1%	<1%

Source: Massachusetts Division of Energy Resources

Negative headroom has caused entities with standard offer service obligations to experience financial difficulties. For example, GPU Energy is the standard offer provider in its Pennsylvania franchised service territory. As wholesale prices have increased, many customers that had chosen alternative suppliers have returned to the GPU standard offer service, because alternative suppliers' prices were more expensive than standard offer service. GPU has been squeezed because the standard offer is fixed, but its

demand is increasing while its costs to purchase power have increased.²⁵

Very low levels of residential customer switching have occurred in Arizona, Maine, Maryland, Massachusetts, New Jersey, and Ohio,

²⁵PA PUC at 44, ME PA, Attachment at 16. See Section D, *infra*, for a discussion of how GPU, and other distribution companies, acquire generation services in wholesale markets.

in part, due to scant headroom available to potential alternative electricity suppliers.²⁶ Moreover, although most states do not keep statistics on the number of alternative service providers actually providing service in the state, many comments noted that as headroom has been squeezed, fewer and fewer alternative suppliers have been providing or offering service to customers.²⁷

The more general issue raised by fixed rates for shopping credits is the proper allocation of fuel and other generation cost risk.²⁸ A fixed retail price shifts much of the risk to suppliers. When generation costs increase while standard offer retail prices remain fixed, the results consistently have been a lack of entry, the exit of some suppliers, and financial difficulties for the

²⁶California also had very low levels of customer switching activity. In California, suppliers had little incentive to seek retail customers because they might well make more money selling into the Power Exchange (PX) if their costs were less than the PX price. By selling into the PX directly, the supplier incurred no customer acquisition costs. These incentives do not exist in other markets because California was the only state that required all electricity sales to be made through the PX. See Appendix A, California Profile for a further description of the PX.

²⁷Allegheny at 5, AREM at 8-13, Enron at 6, Exelon at 20, Mercatus at 14, NJ Ratepayer at 6, New Power at 2, and NYPSC at 13.

²⁸IURC at 3-4, NEMA at 12. A special case of other generation cost risks is the substantial increase in installed capacity (ICAP) payments recently instituted by FERC in New England. Suppliers with contracts at fixed rates that are now required to make far larger ICAP payments than expected at the time these contracts were signed may face financial difficulties similar to those resulting from unanticipated wholesale price increases in California. ME PA at 13-14. See Chapter II for a discussion of installed capacity payments.

providers of standard offer service.²⁹ As observed in California, when the credit worthiness of the standard offer service provider is eroded by rising wholesale costs and fixed retail prices, generators may be reluctant to sell to that firm in the wholesale market on credit. This can create supply reductions for standard offer service that further threaten reliability for all retail customers.

If retaining efficient suppliers in the market is valued as a policy goal, both increases and decreases in the standard offer service provider's avoided costs, particularly changes in their costs to procure wholesale electricity, should be allowed to be passed through in the shopping credit. When a standard offer service provider's costs change greatly and rapidly, any retail regime with fixed prices will be strained. In the last year, state retail competition programs that do not allow pass through in standard offer prices of major cost changes have been problematic for both standard offer providers and alternative service providers.

An additional issue that complicates the pricing of standard offer service is that, like pre-competition regulated rates, standard offer rates typically do not vary over the course of the day or season.³⁰ By contrast, wholesale prices often

²⁹See, e.g., EEI at 13.

³⁰Real-time metering or time-of-day metering is generally required if time-of-use, rather than average, pricing is used to charge for electricity supply. Average pricing generally masks price signals that consumers need in order to make economic consumption and investment decisions. See Chapter III for a discussion of why it is critical for customers to obtain accurate and timely price information to help ensure competitive retail markets.

fluctuate substantially over both day and season. One commenter suggested, however, that it may be harmful to residential customers at this time to pass through increases in wholesale prices, because retail customers do not have the ability to reduce their total electric bills payments by shifting consumption to lower-priced periods.³¹ (See additional discussion in Chapter III.)

Moreover, the disconnect between standard offer prices and wholesale prices is likely to provide incentives for customers to use the standard offer service when wholesale prices are high and use alternative suppliers (with rates closely related to wholesale prices) during other periods.³² Several states have adopted rules to discourage this type of switching. The rules typically require that a customer returning to standard offer service continue with that service for at least a year.³³

In sum, efficient entry will be deterred by standard offer programs that cap retail prices in the face of rising wholesale prices. Permitting standard offer service providers to pass on increases in the prices of obtaining electricity in wholesale markets can alleviate much of this concern.

³¹MD OPC at 9.

³²As noted earlier, Allegheny and the ELCON raised a general concern that standard offer service will insulate customers from price signals to such an extent that markets will not be able to develop. *See*, n. 7, *infra*.

³³Allegheny at 5 (regarding Pennsylvania), NJ Ratepayer at 7, ME PA at 15. New York reports that it allows utilities to require a one year commitment from returning customers, but not all New York utilities do so. NYPSC at 14.

b. Stranded Cost Recovery

The second policy choice that affects the competitive effect of the shopping credit is the length of the stranded cost recovery period. Stranded costs are those costs authorized under regulation that are not expected to be recovered as a result of the decision to implement retail competition. The theory is that in a competitive environment, the utility's expected revenue stream from its undepreciated generation assets may be smaller than the revenue stream under regulation.³⁴

Stranded costs, or uneconomic costs, can arise from uneconomic investments, nuclear decommissioning costs, or above-market, long-term contracts, such as, some of the contracts required by the Public Utility Regulatory Policy Act (PURPA). In the mid-1990s, when natural gas was inexpensive, there was an expectation that new, independently-owned gas-fired generation would have costs low enough to be able to sell electricity at prices below average system costs, thus increasing stranded costs for incumbent utilities.³⁵ In the current environment of rising wholesale prices, stranded cost obligations may be reduced substantially, if not eliminated, because generation assets once thought to be uneconomic may not be so, if wholesale prices for generation services remain high.³⁶

³⁴In Texas, utilities were encouraged to reduce the amount of stranded costs prior to the start of retail competition. TX PUC at 4.

³⁵PA OCA at 3.

³⁶Even if wholesale prices rise no faster than natural gas fuel prices, generation assets once thought to be stranded (often coal-fired generators) can become

Most states have used, on a utility by utility basis, either administrative proceedings or market valuations (divestiture) to determine the value of generation assets that will be stranded by competition. Often these proceedings have resulted in a settlement agreement between the state commission and the utility. For example, in Pennsylvania, two utilities voluntarily divested generation assets, and the net proceeds were applied to offset stranded costs.³⁷ In one case, the proceeds reduced the length of the stranded costs recovery period.³⁸ Likewise, in New Jersey, California, and Texas, stranded cost amounts that were to be recovered from customers were stranded costs net of divestiture proceeds.³⁹ Administrative determinations of stranded costs may either be final or subject to later adjustments based on actual prices (“true-ups”).⁴⁰

To recover stranded costs from customers, state commissions determine a stranded cost recovery charge (expressed on a per kWh basis) based on the total amount of stranded costs divided by the length of the recovery period. This charge is then assessed on customer bills and is nonbypassable, meaning that customers, even if

economic because natural gas often is the fuel used by the generation plants that set the market clearing price for wholesale electricity (see Chapter I, Wholesale Questions 6 and 7). For older, coal-fired plants, fuel prices have not increased nearly as much, thus making operation of these plants more profitable than envisioned before natural gas prices rose relative to fuel prices (see Chapter I, Table 2).

³⁷Allegheny at 7.

³⁸PA PUC at 42.

³⁹NJ Ratepayer at 9-10, TX PUC at 13.

⁴⁰FTC July 2000 Staff Report at 50-51.

they switch to an alternative supplier, are still assessed the stranded cost recovery charge. It is often called the “transition charge.” Assuming the same total stranded costs amount, a longer recovery period will result in a smaller transition charge per billing period, and a shorter transition period will result in a higher transition charge. The length of the stranded cost recovery period also is often linked to the length of the utility’s obligation to offer standard offer service to retail customers.⁴¹

The level of the transition charge can affect retail entry during the transition period in two ways, depending upon whether a state caps a customer’s entire bill or caps only the shopping credit. First, if a state decides to cap the entire bill on a per kWh basis (*i.e.*, the price per kWh will stay the same prior to, and during, the transition period to retail competition), then the amount of the transition charge affects the level of the shopping credit and the headroom available for new entrants. When a state unbundles generation costs from transmission and distribution costs, the unbundled generation costs represent both the uneconomic costs (which are recovered through the transition charge) and economic costs (which are the basis for the shopping credit). Because of the inverse relationship between the shopping credit and the transition charge, the lower the transition charge, the higher the shopping credit and, vice versa, the higher the transition charge, the lower the shopping credit. And, as previously discussed, a lower shopping credit may squeeze available headroom for entrants. By capping customer bills, a higher transition charge may even result in the utility offering a below-cost price for

⁴¹See, *e.g.*, Profile of Illinois’ Retail Competition Program, Appendix A.

standard offer service. Below-cost standard offer prices will eliminate headroom and, consequently, discourage efficient entry.⁴²

Second, if the state caps only the shopping credit during the transition period, the level of the transition charge will affect the percentage savings that alternative suppliers might offer. To illustrate this point, described below is a sample bill of a customer who is receiving standard offer service from the distribution utility (*i.e.*, the customer has not chosen an alternative supplier). The alternative service provider typically offers a discount from the shopping credit. If an alternative energy provider offered a 12 percent discount, the total generation charges for 500 kWh would fall by \$3.36 (12% × \$28). This reduction would represent a reduction on the

entire bill of approximately 6.3% (\$3.36/53.50), given the \$7.50 (or \$.015 per kWh) transition charge. If the state had decided to recover stranded costs over a shorter time period such that the transition charge was \$15 (or \$.030 per kWh), total charges would rise to \$61. The 12% discount on generation would fall from 6.3% to 5.5% (\$3.36/\$61.00) of the total bill because the total customer bill includes other components that dilute the percentage off of the alternative supplier's discount. Thus, a given discount offered by an alternative supplier represents a greater proportional savings to customers and a relatively greater inducement to switch suppliers if the transition charge is lower and the recovery period is longer. Conversely, a shorter stranded cost recovery period increases the amount of the stranded cost recovery surcharge and makes the alternative service provider's discount less significant in percentage terms of the total bill.

⁴²See FTC July 2000 Staff Report at 52-54.

ABC Electric Company	
John Customer Kilowatt Lane Anytown, USA	Account Number: 123456 Customer Class: Residential
To: March 2, 2001	24500 – Actual Reading
From: February 2, 2001	24000 – Actual Reading
Kilowatt Hours (kWh) billed for 30 days	500
Distribution Company Energy Charges:	
Customer Charge (\$.016 per kWh)	8.00
Distribution and Transmission Charge (\$.020 per kWh)	10.00
Transition Charge (\$.015 per kWh)	7.50
Total Distribution and Transmission Charges	25.50
Generation Charges:	
	Shopping Credit: \$.056 per kWh
Generation Charges (\$.056 x 500 kWh)	28.00
Total Generation Charges	28.00
NEW CHARGES	53.50

A shorter recovery period for stranded costs eliminates the distortion of stranded cost recovery from the market earlier and thus allows competition to proceed sooner, assuming the standard offer period ends at the same time the stranded cost recovery period ends. For example, in California, state law required a stranded cost recovery period of not more than four years for the three investor-owned utilities in the state.⁴³ Pennsylvania, by contrast,

⁴³San Diego Gas and Electric (SDG&E) completed recovery of its stranded costs before wholesale electricity prices increased, and thus was able to offer lower retail prices to its customers for several

negotiated settlements with each of the investor owned utilities that allowed for variable recovery periods of generally 10 years. Pennsylvania's approach of accepting a

months before wholesale prices soared (while the other two major California distribution utilities were still charging rates that included a substantial stranded cost recovery component). ME PA, Attachment at 10-11. When wholesale prices did increase dramatically, SDG&E passed these along to customers, as it would have under traditional cost of service regulation. The California Legislature subsequently enacted a rate ceiling, retroactive to June 1, 2000. The ceiling defers costs over 6.5 cents/kWh to be recovered in subsequent periods. See Appendix A, California Profile.

prolonged period for recovering stranded costs increases the shopping credit relative to other billing elements. Pennsylvania's higher shopping credit appears to have helped produce the largest increase in alternative supplier entry among the states with retail competition programs.⁴⁴

c. Initial Rate Reductions

The third policy element concerns the effect on entry caused by state-mandated rate reductions for certain customer classes that are not based on cost reductions for supplying standard offer service. These typically occur when a state institutes the transition to retail competition. Such rate reductions can affect the level of the shopping credit, and, consequently, the amount of available headroom for new entrants. For example, the California, Massachusetts, Ohio, and Texas restructuring laws mandated rate reductions, whereas rate reductions in Pennsylvania and New York were negotiated as part of the settlement agreements for each of the utilities in those states. The rate reductions generally were applied to the price for total service, not just the generation portion of electricity services (although some states, such as New Jersey, only applied the rate reduction to the transmission and distribution portions of a customer's bill).

The magnitude of initial rate reductions varied both between states and within some states. Massachusetts, for example, set an initial rate reduction of 10%, which applied to all customer classes. By contrast, other states' rate reductions vary by customer class, utility or both. New

York customers, for example, received different rate reductions, ranging from 2% to 25%, based on both customer class and utility service area. Rate reductions in Illinois vary from 5% to 15%, based only on utility service area.⁴⁵

Some commenters suggested that rate decreases were necessary to provide "consumers immediate relief from the above-average electric rates they were paying and eliminated some of the price disparities being experienced throughout Pennsylvania prior to the onset of retail competition."⁴⁶ Others suggested that the rate reductions were to provide consumers with the benefits of competition similar to those larger customers were obtaining.⁴⁷ By contrast, Enron suggested that most states have tried to guarantee short-term price decreases through mandatory rate reductions with no concern for the effects of these decreases on retail entry.⁴⁸ A related concern is that mandatory rate reductions can mask whether increased competition in this industry produces benefits similar to those in other regulatory reform efforts.

In a period of declining fuel costs and wholesale electricity prices, as was expected when states implemented retail competition programs, it was anticipated that initial rate reductions in standard offer service could be repaid by slowing future rate decreases, rather than by

⁴⁴Allegheny at 5, Enron at 5-7, Exelon at 21-22, Mercatus at 10, 12-14, and RPPI at 5-8.

⁴⁵See also Exelon at 25, ICC at 19. New York reduced individual utility rates prior to implementing retail competition programs. NYPSC at 16.

⁴⁶PA PUC at 37.

⁴⁷Exelon at 3.

⁴⁸Enron at 2.

raising future rates. In Massachusetts and California, the rate reductions were financed through the use of debt financing, with plans to repay these loans through surcharges on retail customers' utility distribution charges at a later date.⁴⁹ These charges would be paid by all customers, regardless of whether the customer had switched to an alternative supplier. If increases in wholesale electricity prices, such as those in early 2001, persist or return, this "painless" repayment option is less likely to be available.

Initial rate reductions on standard offer service provide lower prices to all customers at the onset of retail competition, even if the customer does not search for an alternative supplier.⁵⁰ Commenters noted that initial cuts in standard offer rates undermine customers' incentives to search actively for an alternative supplier and, thus, may deter the establishment of effective competition in retail markets.⁵¹ Initial rate

⁴⁹*Id.* at 3.

⁵⁰Enron at 5-6, Exelon at 25, ICC at 18-19, Mercatus at 13, MI PSC at 9, NEMA at 12-13, NJ Ratepayer at 8, New Power at 4, PEPCO at 6, and Shell at 16.

⁵¹Allegheny at 6, Enron at 5-6, Mercatus at 13, ICC at 19, MidAmerican at 7, and NJ Ratepayer at 8. Customer inertia tends to make these incentives critical for entrants in attracting customers. EPSA at 4, Kenneth Rose, Electric Restructuring Issues for Residential and Small Business Consumers, National Regulatory Research Institute (June 2000) <<http://www.nrri.ohio-state.edu/staffpages/kenrose.html>> at 9-10, Shell at 16. Allowing below-cost rates for standard offer service near the onset of customer choice may reduce new entry as well, because it reduces customer searches for alternative suppliers at just the time when media coverage and state customer education plans are likely to make potential customer more attentive to entrants'

reductions for standard offer service that are unrelated to cost reductions for such service may impede entry by firms that are at least as efficient as the standard offer supplier. Moreover, unlike what incumbent utilities are permitted to do in some states (*e.g.*, Massachusetts), entrants cannot place a surcharge on a customer's distribution charges at a later date to recover the amount of revenue lost due to the low-priced offers on generation services that are necessary to compete with reduced standard offer prices.

C. States Should Consider How to Move Beyond Standard Offer Service to Allow Competitive Markets to Develop

Most states have set a deadline for standard offer service (and stranded cost recovery) to expire. Thus, sooner or later, states will need to consider whether to adopt mechanisms other than standard offer service to ensure the provision of reliable electricity to customers. It may be appropriate for states to consider pilot programs now to explore alternative mechanisms, especially in light of the difficulties of determining the appropriate shopping credit and price for standard offer service. It also may be appropriate for states now to consider other ways to price standard offer service.⁵² Several electricity suppliers favored curtailment of standard offer service programs after a short period of time.⁵³

offers. See FTC July 2000 Staff Report at 54.

⁵²Some commenters observed that industrial and large commercial customers generally do not need access to standard offer service. AREM at 4-5, Exelon at 23, and MidAmerican at 6.

⁵³Allegheny at 5, Cleco at 4, EPSA at 4, MidAmerican at 6, and NEMA at 9.

By contrast, the Electricity Consumers Resource Council suggested that standard offer service (with accompanying vesting of generation capacity) is needed until hedging services are available to customers.⁵⁴ Other commenters favored an ongoing standard offer program, expressing the concern that some customers would not be attractive to generators at prices comparable to regulated prices.⁵⁵ Particular concern was expressed about maintaining standard offer service programs for rural and other low-load areas that may not attract enough generation entrants to provide effective competition.⁵⁶

Despite these reservations, there may be alternative methods to ensure that all customers are able to obtain reliable electricity services at just and reasonable prices. Many states, including California, Maryland, Massachusetts, and New Jersey, assigned the obligation to provide standard offer service to the utility holding the distribution franchise in each geographic area. Another method may be to allow the distribution company to auction off the obligation to provide generation services to standard offer customers. Maine adopted a program whereby non-choosing customers are aggregated, and the right to supply these

customers is auctioned by the state.⁵⁷ Although Pennsylvania initially assigned standard offer service to the local distribution utility, it has subsequently allowed the distribution utility to auction off some of the standard offer service to alternative suppliers.⁵⁸ Ohio has developed a similar approach.

Another approach to standard offer service would be to prohibit an unregulated affiliate of the standard offer service provider from offering services in competition with standard offer service in that franchise territory. For example, in Texas, utilities are required to separate their business activities into three units: a wholesale generation company, a transmission and distribution company, and a retail electricity company. After retail competition begins, customers who do not choose an alternative supplier will remain with the retail electricity company affiliated with the incumbent transmission and distribution company serving the area. These customers will be provided with standard offer service, the rate for which is regulated by the Texas commission. The retail electricity company, however, is prohibited during the first 36 months of retail competition, or until its standard offer service loses 40 percent of the demand from residential or small commercial customers, from offering, on an unregulated basis, retail electricity services below the standard offer price.⁵⁹

⁵⁴ELCON at 29.

⁵⁵ECA at 6-7, ME PA at 16, and NRECA at 11-13.

⁵⁶NRECA at 12-13. The Maine commission expressed a similar concern, based on its experience in bidding out Maine's standard offer service, that high unit transactions costs may discourage generation entrants from serving areas with small loads. ME PUC at 5.

⁵⁷Maine adopted this approach in the belief that an incumbent providing the preponderance of standard offer service will use its monopoly leverage to undermine customer choice. ME PUC at 5.

⁵⁸PA OCA at 18.

⁵⁹TX PUC at 3.

An alternate approach may be not to provide a standard offer service at all, as was done in the Atlanta Gas Light natural gas customer choice program.⁶⁰ A state could require customers to choose an alternative electricity supplier by a date certain and provide consumer education programs to facilitate the selection process. Under this plan, the unregulated generation affiliate of the incumbent utility would be vying with alternative electricity suppliers and marketers for these customers, but not with the utility itself.⁶¹ There are multiple ways to handle those customers that do not choose an alternative supplier during the transition period. For example, these customers could be assigned to new suppliers based on the new suppliers' percentage of customers that choose the new supplier during the transition period.⁶² Alternatively, the state could aggregate non-choosing customers and auction the responsibility to provide generation services to them similar to the Maine program.

⁶⁰Under the Atlanta Gas Light customer choice program, the company "worked with the Georgia Public Service Commission and marketers to transition customers to a new deregulated environment. By October 1999, all our customers in . . . Georgia [have] either chosen or been switched over to a natural gas marketer." Atlanta Gas Light now functions only as the owner and operator of the gas delivery system in its former Georgia franchise area. <www.atlantagaslight.com/faq.html>, Green Mountain at 3.

⁶¹As noted in Section B.1.b *infra*, during the stranded cost recovery period, states may wish to guard against the possibility that unregulated affiliates of the incumbent utility could offer generation services at prices that would deter retail competition. For a more complete discussion of this possibility, see FTC July 2000 Staff Report at 52-57.

⁶²Green Mountain at 3, Shell at 14.

At this point, it is unclear which method provides consumers the most favorable benefit/costs relationship, since the majority of states have allowed the distribution utility to provide standard offer service. It therefore may be appropriate for states to consider pilot programs that test alternative ways to handle customers absent a standard offer service provider. Pilot programs can help clarify the costs and benefits of alternate programs as well as safeguard against widespread problems if difficulties arise.

D. Alternative Suppliers and Standard Offer Service Providers Should Be Able to Acquire Wholesale Electricity Through A Variety of Market-Based Means

Several commenters noted that in retail electric power markets, suppliers (whether they are standard offer service providers or alternative suppliers) should be able to procure power in wholesale markets through a variety of procurement methods. Several comments suggested that California's requirements that providers of standard offer service sell and purchase all of their requirements through a wholesale electricity spot market were flawed and prevented providers from hedging against the risk that wholesale prices would rise.⁶³ These requirements raise the costs of doing business. Suppliers should have the option to use a mix of contract types and purchase methods to acquire the necessary supplies and to hedge against volatile wholesale spot market prices.⁶⁴ It is the job of wholesale suppliers to manage price risk

⁶³See, e.g., CAEM at 11, RPPI at 18-19.

⁶⁴CAEM at 12-13.

effectively in wholesale markets through bilateral contracts and other financial tools.⁶⁵

1. Providers of Standard Offer Service Need to Use Varying Methods to Secure Necessary Electric Power

In California, utilities were the providers of standard offer service. After divesting non-nuclear and non-hydro generation to establish stranded cost recovery levels, as required by state law, they were also required to sell output from their remaining generation facilities and purchase all of their demand through the Power Exchange (PX).⁶⁶ State law also restricted the utilities' ability to enter into buyback (vesting) contracts from the generation assets that they divested and discouraged them from entering into long-term power contracts or otherwise hedging their exposure to the spot market.⁶⁷ This has since been changed pursuant to state legislation and FERC order, in light of extensive criticisms of the earlier restrictions.⁶⁸

By contrast, in New York, regulated suppliers (*i.e.*, providers of standard offer service in New York) use a mix of procurement means to acquire necessary supplies. Bilateral contracts, transition (also termed vesting or buy back) contracts with new owners of divested

generation, independent power producer contracts, and self-owned generation and spot market purchases are all used to fulfill supply obligations.⁶⁹ Likewise, in Texas, suppliers have "broad latitude" in how they acquire energy to serve their customers.⁷⁰ Commenters maintained that the ability to use various procurement methods permits suppliers to manage effectively risk.⁷¹

In Pennsylvania, most generation was either sold to third parties, or moved to unregulated affiliates of regulated distribution companies.⁷² Of the two utilities that divested generation, Duquesne used an "all requirements" contract with buyers of its plants to supply energy at fixed prices to meet its standard offer service obligations. The other utility, GPU, expected to rely on power purchase contracts, up to an expected peak demand, to meet its obligations as the standard offer service provider. GPU, however, underestimated demand for standard offer service, thus forcing it to make spot market purchases for a portion of the power it supplied to standard offer customers. The spot market prices often exceeded the regulated standard offer price.⁷³ In Pennsylvania, if a utility that has a standard offer service obligation incurs significant increases, outside of the utility's control, in the prices of either fuel for utility generation or purchased power, it can apply for a rate increase to cover these cost increases. GPU

⁶⁵EPSA at 8-9.

⁶⁶CAEM at 14.

⁶⁷Exelon at 5.

⁶⁸See FERC, Order Directing Remedies for California Wholesale Electric Markets, Docket Nos. EL00-95-000 (Dec. 15, 2000); 2001 Cal. Legis. Serv. 1sr Ex. Sess. Ch 4 (A.B. 1)(West).

⁶⁹NYPSC at 19.

⁷⁰TX PUC at 15.

⁷¹See, *e.g.*, EPSA at 9.

⁷²PA PUC at 43.

⁷³PA OCA at 22, PA PUC at 44.

has applied for such an increase.⁷⁴ In New Jersey, utilities may use a market mechanism of their choice.⁷⁵ In Maryland, the distribution utility that sold all of its plants has a contract with the plants' purchaser for all of the utility's standard offer supply requirements.⁷⁶

In states without an operating ISO, the situation is slightly different. In Illinois, state law required use of buy-back contracts for the output of the plants that utilities with standard offer obligations sold. This requirement applies through the end of 2004.⁷⁷ In Michigan, the utilities can decide which market mechanisms to use, and the trend has been for the two major utilities to meet demand by acquiring more generation from out-of-state suppliers.⁷⁸

⁷⁴ME PA, Attachment at 18. The Pennsylvania commission has since allowed GPU to defer \$300 million in wholesale power costs that it could not recover through standard offer service rates from the beginning of 2001 through 2005. GPU is prohibited from passing such costs through to retail customers, but the commission has allowed GPU to carry them on its books through 2010. Should wholesale power prices drop, the gains will be used to offset and reduce deferred costs. Unrecovered costs at the end of 2010 must be written off. Pennsylvania Public Utility Commission, Docket Nos. A-110300F0095, et. all, Settlement Agreement (June 14, 2001)
<http://puc.paonline.com/agenda_items/2001/pm061401/GPU_Settlement.doc>.

⁷⁵NJ Ratepayer at 10.

⁷⁶Allegheny at 6.

⁷⁷ICC at 26.

⁷⁸MI PSC at 10-11.

2. Jump Starts to Competition

Several utilities, as part of their individual settlements with state commissions to introduce competition, agreed to programs to "jump start" competition to encourage customer switching activity. These programs provide an alternative to divestiture of incumbents' generation capacity or de novo entry as means to make existing capacity available to retail entrants. In Illinois and Ohio, franchised-distribution utilities have agreed to provide alternative suppliers with contracts for a specific amount of generation capacity at fixed prices along with associated transmission services.

For example, in Illinois, incumbent utilities, as long as they are recovering stranded costs from customers, are required to offer to sell capacity to certain customers at prices that recover only the administratively determined value of generation assets that were used for assessing the level of the utility's stranded cost exposure. In other words, the stranded cost recovery assessments of a utility's generation assets provides the basis for requiring incumbents to offer to sell electricity at rates that recovers the lower value of the utility's assets.⁷⁹

The Illinois commission reported that approximately 40 percent of customer switches occur on this basis in Illinois.⁸⁰ In Ohio, the market, to date, has not shown much customer switching activity beyond the capacity that was

⁷⁹See Illinois Profile, Appendix A. Ohio has a similar "jump start capacity" provision that provides entrants with a specific amount of capacity from incumbent utilities at fixed prices. Shell at 3-4. See Ohio Profile, Appendix A.

⁸⁰ICC at 15.

reserved for this program (an exception is substantial switching under Ohio's demand aggregation program).⁸¹

These programs make it difficult to tell whether the state's retail competition program has succeeded in establishing competitive retail markets outside of the set-aside capacity provision. As a transition mechanism while the utility is collecting stranded costs, however, they do allow entrants to acquire immediate capacity while they build their own generators or make other supply arrangements.

E. Conclusions

- Effective retail competition, and the subsequent consumer benefits of retail competition, are much more likely with actual entry. State policies that eliminate barriers to entry to allow for the long-run, efficient entry of entities to compete with the incumbent will assist the development of retail electricity markets. There are a number of entry barriers that impede the efficient entry of alternative retail electricity suppliers.
- Most states have required the existing distribution utility to continue to offer service ("standard offer service") at fixed, regulated rates to customers that do not choose a new supplier or whose supplier exits the market. Often the duration of this service is coterminous with the time period during which the state allows the utility to recover its stranded costs (those

⁸¹This may be due in part to the absence of an operating ISO in these states that would provide greater assurance of nondiscriminatory access to transmission for other generation sources.

generation-related costs that are uneconomic in a competitive environment). In some states, the price for standard offer service has become a retail entry barrier.

- States should design standard offer service policies that provide entrants with sufficient incentives to offer service and do not, unintentionally, create a barrier to entry. Ensuring that standard offer service providers can pass on changes in fuel costs and wholesale electricity prices will aid this goal.
- Initial rate reductions for standard offer service, which are not based on cost reductions, tend to distort entry decisions and reduce incentives for retail customers to search for alternative suppliers. If rate reductions are applied to total rates, this effect may be severe. Rate reductions for standard offer service that are financed through deferred charges paid by all distribution customers may result in below-cost prices for standard offer service and, consequently, reduce incentives of alternative service providers to enter.
- States may wish to implement pilot programs that test alternatives to standard offer service, in light of the difficulties in establishing an appropriate standard offer price and the dampening effects that inappropriately-priced standard offer service can have on incentives for suppliers to enter retail electricity markets.
- Requiring incumbent utilities to provide generation capacity to retail suppliers at

prices that reflect the value of generation assets as determined administratively when assessing the level of the utility's stranded costs, may mask whether the underlying market is conducive to support retail competition. As a

transition mechanism while stranded costs are being recovered, however, these programs may allow entrants to start serving customers while they make longer-term supply arrangements.

CHAPTER V CONSUMER PROTECTION POLICIES AND RETAIL ELECTRICITY COMPETITION PROGRAMS

A. Introduction and Summary

States have considered a variety of policy approaches to ensure that consumers are protected as competition develops in retail electricity markets. States have balanced these policy choices with the objective of encouraging long-run, efficient entry into these markets. In other words, the challenge has been to develop policies that adequately protect consumers but that do not impose unnecessary burdens that deter new entry by retail electricity suppliers, including geographic expansion by incumbents outside of their franchise territories. Some requirements may be unnecessary because, at least to some extent, as competition gets underway, market forces will provide companies with incentives to meet the states' objectives. Relevant consumer protection policies include retail electricity supplier requirements and the informational needs of consumers.

In addition, the participation in competitive retail markets by unregulated affiliates of distribution utilities has caused states to create rules governing distribution utilities' relationships with their unregulated affiliates and the affiliates' competitors. To date, the significance of these policies for effective competition has been masked by the overwhelming effect on retail markets of standard offer pricing policies and rising wholesale prices. Nonetheless, such policies may become more important later as retail competition develops.

Retail Electricity Supplier Requirements. There was widespread agreement in the comments that states will enhance the probability of obtaining competitive retail electricity markets by avoiding

unnecessary requirements on retail electricity suppliers. For example, licensing requirements can provide important consumer protections against fraudulent firms, but these protections should be weighed against the effect of the requirements on the ability of suppliers profitably to enter new markets. Some commenters suggested that the implementation of uniform business rules among states that govern supplier licensing and customer switching can reduce supplier costs and facilitate the entry and geographic expansion of new retail suppliers.

Consumer Information. Some states have developed programs intended to provide consumers with easily understandable information that enables consumers to make informed comparisons about new options in retail electricity markets. The challenge has been to design these programs so that retail suppliers still have the flexibility to differentiate their products. Policies that encourage accurate, timely and comparable information about prices and services can make it easier for customers to participate in competitive retail markets. Information policies targeted to consumers may come in several forms, including: enforcement of truthful and nondeceptive supplier advertising, standardized disclosures ("labeling") of price and service information by retail suppliers, and consumer education programs.

Distribution Utility Behavior. Numerous commenters expressed views about rules restricting the behavior of regulated distribution utilities that also sell electricity through unregulated operations in competition with other retail suppliers. Most states have

established rules or codes of conduct intended: (1) to prohibit cost-shifting that burdens ratepayers with costs that should be borne by the unregulated operations of a distribution utility, and (2) to safeguard against discrimination in the provision of monopoly utility franchise functions (*i.e.*, delivery of power via its distribution lines). If distribution utilities subsidize their unregulated retail affiliate by shifting affiliate costs to the utility, and thus to ratepayers, competitive markets can be impeded. In addition, any preferential access to distribution services also would provide the utility's affiliate with cost advantages not related to legitimate efficiencies. By virtue of its continued ownership and operation of the distribution lines, the utility is uniquely positioned with respect to certain competitively significant inputs (*e.g.*, customer usage information and customer referrals) that are not practically obtainable from other sources by unaffiliated retail suppliers. For competitive retail electricity markets to develop, it is imperative that incumbent distribution utilities treat all retail suppliers impartially with respect to access to those assets.

States' efforts in these areas are described in Appendix A for a sampling of states that have introduced, or are about to introduce, competition into retail electricity markets. The effectiveness of many of the measures, however, is difficult to assess because state retail competition is nascent, and many wholesale market issues have not yet been resolved.

B. Minimizing Direct Entry Costs Associated with Desired Consumer Protections

An important aspect of retail competition policy is the cost imposed on electricity suppliers by the

compliance requirements of different states. Commenters noted that electricity is now traded in commodity markets that span beyond state boundaries, and thus rules governing supplier entry and customer switching also should account for the regional nature of the product being sold. To this end, the Illinois and Maine commissions reported efforts to harmonize billing rules with other states,¹ while the Texas and Pennsylvania commissions noted their efforts to provide uniformity throughout their states.² One commenter noted that some degree of harmonization occurs through information consultation and interaction among utilities, suppliers, and regulatory personnel.³

Alternative retail suppliers and others widely viewed a lack of state uniformity in regulatory practices, including supplier licensing and customer switching rules, as sources of substantial costs that unnecessarily reduce headroom and entry incentives.⁴ Several other state-imposed requirements were also mentioned by one or more commenters.⁵ At the same time, many states believe that certain policies are necessary to serve important consumer protection and other public policy objectives such as increased system reliability.

¹ICC at 16, ME PUC at 7.

²TX PUC at 11, PA PUC at 13.

³ME PA at 14.

⁴AREM at 15-18, Cleco at 3, Green Mountain at 5, MidAmerican at 5, NEMA at 8, New Power at 2-7, Reliant Ex. A at 3, and Shell at 10. The importance of headroom is discussed in Chapter IV.

⁵These additional restrictions include, for example, Maine's requirement that 30% of generation be from renewable sources. ME PA at 13.

1. Supplier Licensing

Most, if not all, states that have moved toward retail competition have developed some type of licensing or certification program for suppliers. States have required suppliers to meet certain technical standards and to provide some proof of financial soundness in order to obtain a license or certificate. In many cases, states have imposed bond requirements on retail suppliers ranging from \$25,000 to \$300,000. For example, Maine requires a retail supplier to furnish a surety bond or an irrevocable standby letter of credit for an initial security of \$100,000. Illinois maintains bonding requirements in varying amounts from \$30,000 to \$300,000 depending upon the types of customers the supplier intends to serve. New Jersey requires a surety bond of \$250,000 for an initial supplier license.⁶

There is a range of views on the need for supplier licensing. In general, licensing requirements for retail electricity suppliers are intended to ensure that companies have sufficient technical, financial, and managerial resources and abilities to supply generation services reliably. According to some commenters, licensing requirements can allow states to assure customers a standard of stability and accountability for all those firms operating in the state.⁷ These requirements can also provide a mechanism for identifying, disciplining, and, if necessary, excluding competitors with a history of deceiving or abusing consumers.⁸ At least one state has taken

enforcement action for violation of its licensing requirements.⁹

Other commenters opposed licensing and supported the use of existing state law (*e.g.*, contract law) to protect customers instead. Many commenters who opposed or expressed reservations about licensing requirements contended that such requirements unnecessarily increase industry costs and result in higher consumer prices.¹⁰ One supplier generally supported reasonable licensing requirements but opposed bond or letter of credit and in-state office requirements on the grounds that such restrictions put small firms at a disadvantage and create barriers to entry.¹¹

Several commenters suggested that if there is supplier licensing, it would be best if state licensing requirements are uniform among the states.¹² Uniformity would reduce compliance costs, but serve the stated goal of ensuring that companies have sufficient technical, financial, and managerial resources and abilities. Uniform standards, however, may impose more restrictions on entry than some states may prefer.

⁹NY AG at 5. The state obtained a criminal fraud conviction of an individual who was collecting "deposits" for electric service without proper authorization. In another case, an individual was conducting an illegal pyramid scheme based in another state.

¹⁰NEMA at 4-5, New Power at 4-5, and Shell at 7-8.

¹¹Green Mountain at 8-9.

¹²EPSA at 3, Green Mountain at 5-6, and New Power at 6.

⁶See generally State Profiles, Appendix A.

⁷AARP 2-3, ECA at 6; see also NYPSC at 9-10 (description of New York's licensing requirements).

⁸UWUA and the MUPHT at 26.

2. Customer Switching Requirements and Protecting Residential Customers from “Slamming” and “Cramming” in Competitive Retail Markets

The commenters highlighted the balance that states must achieve in creating a regulatory framework that minimizes unnecessary burdens on retail suppliers, while protecting consumers from harmful practices such as unauthorized switching of a customer’s electricity supplier (“slamming”) and placement of unauthorized charges on electric bills (“cramming”). Slamming and cramming created significant problems for many consumers during the period of telephone restructuring. Such problems have not been seen as a significant problem in electricity regulatory reform.¹³ For example, the Pennsylvania Office of Consumer Advocate indicated that in retail electricity markets, although early slamming complaints were common, the complaints were due to procedural problems or administrative error, and that intentional slamming as seen with the telecommunications industry has been uncommon.¹⁴

The apparent scarcity of unauthorized customer switching may be because states that have implemented retail competition have required suppliers to verify a customer’s choice in some way. In most of the states with retail competition programs, verification must be either in writing, by telephone recording, or by an encrypted Internet transaction. In many

¹³In recent months, however, the FTC staff has learned of complaints about intentional slamming by alternative suppliers of natural gas.

¹⁴PA OCA at 8-9.

cases, states require verification of telephone transactions by an independent organization. In some states, the distribution company must send customers a confirmation letter regarding a switch request received from a supplier.¹⁵ Some states, however, impose less stringent verification requirements if customers initiate the transaction. State requirements usually include a period of time (anywhere from three to 14 days) for customers to cancel their service with a new supplier. Suppliers that conduct unauthorized switching can be subject to the payment of costs associated with the switch, financial penalties, and license revocation.¹⁶

To ease burdens and ensure uniformity across states, several commenters supported state

¹⁵PEPCO at 5. In many states, the supplier has the responsibility for notifying the distribution utility of the customer’s intent to switch. In Pennsylvania and New Jersey, for example, after a supplier has received a customer’s authorization for a switch, the supplier will notify the distribution utility of the switch. After receiving a switch notification, the distribution utility will send the customer a confirmation letter to inform the customer that it has received the switch request from the supplier. After receiving the verification letter from the distribution utility, the customer generally has a “right of rescission” period in which he can cancel his choice without penalty. Both Maryland and Pennsylvania customers have a 10-day right of rescission period; New Jersey customers have 14 days to terminate an unwanted switch. Each state has different requirements for supplier authorization of a customer switch. Until recently, New Jersey had a “wet signature” requirement, under which a supplier had to receive a customer’s written signature in order to authorize a switch. New Jersey customers are now also allowed to sign up online. Both Maryland and Pennsylvania customers have the option of authorizing a switch in suppliers in writing, by phone or over the internet. *See generally* State Profiles, Appendix A.

¹⁶*E.g.*, Green Mountain at 6.

adoption of the procedures governing how electricity suppliers enroll and switch new customers set forth in the Uniform Business Practices for the Retail Energy Market document.¹⁷ One supplier, Reliant Energy, supported a federal standard for slamming and cramming protection because, in its view, a federal standard would benefit both consumers and industry through less complicated state compliance requirements and simpler transactions.¹⁸

By contrast, several other commenters stated that the regulation of slamming and cramming is best left to the states.¹⁹ In addition, a few commenters supported some of the state regulations already in place.²⁰ AARP suggested that complaint procedures adopted in Maine, Massachusetts, and Pennsylvania are particularly effective for protecting consumers because they hold the consumer harmless until the dispute is settled.²¹

¹⁷See, e.g., EPSA at 3, NEMA at 3-4, New Power at 6, and Green Mountain at 5-6. The Uniform Business Practices for the Retail Energy Market (UBP) project is a private process designed to reach a consensus on business and operational practices needed for the restructured electricity market. The purpose of the project is to identify best business practices from the range of early market experiences and to encourage states to adopt these practices. The UBP document is available at www.eei.org. The Gas Industry Standards Board (GISB) is engaged in a similar project for the natural gas market.

¹⁸Reliant Ex. A at 2.

¹⁹Allegheny at 4, ICC at 9, NYPSC at 8, PA PUC at 20-21, and Shell at 6-7.

²⁰AARP at 6, NJ Ratepayer at 3, and PEPCO at 5.

²¹AARP at 6.

C. Consumer Information

As competitive retail electricity markets develop, consumers face a wide variety of price offers, contract terms, and environmental or service claims. Consumers must receive accurate, nondeceptive, and easily understandable information through advertising and other means, so they can make informed choices about service and providers. To the extent that consumers incur costs to switch suppliers – e.g., termination fees for long-term contracts – prior understanding of prices and fees can reduce these costs. In addition, consumers have no ability to verify some of the quality characteristics of electricity that may have value for them, such as fuel source content. State policies in this area include enforcement of nondeceptive advertising, use of standardized labels indicating price and quality characteristics, and consumer education programs.

1. Advertising

To date, the amount and type of advertising for retail sales of electricity in affected states has varied widely.²² Some suppliers may be reluctant to commit resources to advertising until they can assess all of the elements of the

²²E.g., PA OCA at 13 (Pennsylvania “was the initial focus of a lot of advertising”), Exelon at 20 (extensive advertising in Pennsylvania; in Illinois, where residential customers are not yet eligible to select an energy supplier, marketing efforts primarily focused on commercial and industrial users through direct mail, telemarketing, and personal visits, with some mass media (print and television) to build brand awareness), ICC at 13 (little advertising so far), ME PUC at 7 (some supplier advertising targeting medium and large customers), NJ Ratepayer at 5 (some supplier advertising, largely in the print media), and Allegheny at 3 (little supplier advertising in Maryland).

state's regulatory restructuring program.²³ In the advertising that has appeared, suppliers generally have attempted to differentiate their products by price or environmental ("green power") claims.²⁴

The Commission's general principles about advertising apply to price, environmental, and other claims about retail electricity service. That is, such advertising claims must be truthful and must be substantiated with appropriate evidence at the time they are made.²⁵ The Commission's Guides for the Use of Marketing Claims ("Green Guides"), which were developed for environmental claims about any type of product, and the National Association of Attorneys General (NAAG) Environmental Marketing Guidelines for Electricity, also provide guidance for electricity marketers.²⁶ In at least one state, there has been some enforcement activity for inaccurate and misleading statements. The Pennsylvania Attorney General has reviewed

suppliers' claims about price and environmental aspects, and sought remedial action from a number of suppliers.²⁷

2. Standardized Labeling

To facilitate consumers' ability to make meaningful comparisons in retail electricity markets, policy makers have considered mandatory disclosure of standardized terms, prices and relevant attributes of electric power -- similar to nutrition labeling on food or energy efficiency labels on appliances.²⁸ Most states require electricity suppliers to include some sort of fact label in terms of service documents, certain forms of advertising, and periodic bill mailings. Although the required content of the label varies from state to state, examples of the required information include: pricing, contract terms, generation sources, air emissions, and

²³See Shell at 10.

²⁴Allegheny at 3, Exelon at 20, and ICC at 13.

²⁵See generally FTC July 2000 Staff Report, Section VIII.A at 58-68 (discussing in detail the Commission's general advertising principles and how they relate to the electricity industry); see also FTC, *Advertising Retail Electricity and Natural Gas: A Power-ful Opportunity for Suppliers* (Dec. 2000) (business education publication).

²⁶The FTC has taken the position in its Green Guides that claims of general environmental benefit should not be prohibit *per se*, but should be avoided or qualified as to a specific attribute, unless the marketer can substantiate all the implications of the broad claim. 16 C.F.R. Part 260. The staff sees no reason to treat general environmental claims for electricity differently. FTC July 2000 Staff Report at 60-63 (discussing Green Guides' application to environmental claims for electricity).

²⁷Exelon at 20. The Commission staff has received some complaints about advertising claims by suppliers of natural gas, including allegedly deceptive claims about prices, rebates, and additional service and termination fees. The staff anticipates that similar issues are likely to arise with new entrants to the retail electricity markets.

²⁸Some consumer research indicates that consumers have difficulty comparing competing products when suppliers are allowed to present whatever information they choose about the product in whatever format they choose. In addition, research conducted for the Maine and New Hampshire Public Utility Commissions suggests that consumers have an overwhelming desire for mandatory disclosure of price and fuel mix information in a standardized format. Regulatory Assistance Project, *Information Disclosure for Electricity Sales: Consumer Preferences from Focus Groups* (Mar. 19, 1997); National Council on Competition & the Elec. Indus., *Synthesis Report: A Summary of Research on Information Disclosure* (Oct. 1998) (both documents published at www.rapmaine.org).

renewable energy claims.²⁹ In some cases, states require suppliers to include the fact label in ads that contain claims about price, cost competitiveness, or environmental quality. In lieu of providing the information in ads, states often allow the supplier to furnish a toll-free number or website from which consumers can obtain the label information. Finally, some states, such as Maryland and New Jersey, require suppliers to refer to the official “price to compare” (*i.e.*, the generation price) rather than the price that includes franchise distribution and transmission charges if the suppliers make price comparisons to the standard offer in their advertising.³⁰

Several commenters supported standardized labeling requirements on the basis of their view that the requirements would benefit competition in the marketplace. One commenter argued that standardized labeling can improve consumers’ ability to shop comparatively (by facilitating “apples-to-apples comparisons”) and decrease

suppliers’ customer acquisition costs.³¹ Similarly, the National Association of Regulatory Utility Commissioners (NARUC) supported initiatives “leading to minimum, enforceable uniform standards for the form and content of disclosure and labeling that would allow retail and wholesale consumers to easily compare price, price variability, resource mix and environmental characteristics of their electricity purchases.”³² AARP supported state requirements, adopted in Connecticut, Maine, Massachusetts, and New Jersey, that suppliers disclose the price and associated contracted terms of electricity at the marketing and advertising stage; AARP suggested such contract terms be mandated in all direct mail solicitations and conspicuously disclosed in all mass market media advertising.³³

A few commenters warned, however, that excessive standardization, such as requirements for uniform terms and conditions of supplier offers, could restrict the diversity of alternative services offered to consumers.³⁴ If mandatory requirements are too broad, it may be difficult for firms to develop innovative marketing or advertising for their product, and thus harm competition. According to Shell, “labeling creates a homogeneous marketplace among competitive suppliers stifling innovation.”³⁵

²⁹For example, although Massachusetts, New York and New Jersey all require fuel source and air emissions data, each state also has state-specific labeling requirements. Massachusetts requires suppliers to provide price information and labor practices characteristics in addition to the environmental information. In New York, air emissions must be shown relative to the New York State average. New Jersey has stringent standards that require suppliers to indicate the extent to which they have supported energy efficiency measures. In addition, if a New Jersey supplier makes claims that its energy is more “environmentally-friendly,” that supplier has to disclose its generation sources and fuel mix in the label. *See State Profiles, Appendix A.*

³⁰*See Maryland Profile and New Jersey Profile, Appendix A.*

³¹PA PUC at 17-18.

³²NARUC at 5.

³³AARP at 7.

³⁴ICC at 8; *see also* Shell at 6. Similarly, labeling requirements may need to be modified to accommodate real-time pricing. *See discussion in Chapter III.*

³⁵Shell at 6.

Shell expressed concern that labeling requirements would limit the types of products suppliers would be able to offer. For instance, Shell indicated that labeling requirements in some states would preclude firms from offering “weatherized” bills that are based on a fixed annual price rather than a per kilowatt price.³⁶

Many commenters addressed whether states should require environmental disclosures, such as the source mix for the energy. An alternative is to rely on market incentives for suppliers to make environmental claims. According to Green Mountain, a supplier specializing in sales of electricity from renewable sources, the market has not clearly demonstrated nor has research established that “environmental disclosure labels are relied upon, or even read and understood, by consumers who weigh the benefits and options of the competitive market.”³⁷ As previously discussed, some commenters (*e.g.*, NARUC) supported such labeling requirements.

Other commenters, however, raised concerns with mandatory environmental disclosures. One trade association expressed concern that labeling requirements in some states discriminate unfairly against certain power sources, such as nuclear power.³⁸ Another commenter suggested that standard labels would be difficult to

implement because many alternative providers purchasing energy on the spot market do not know the source of the power.³⁹ An electricity supplier suggested that burdensome reporting requirements, such as fuel source mix and environmental impact, may have a disproportionate adverse effect on companies with small margins, and cause them to leave the market.⁴⁰

States can structure their environmental labeling requirements in ways that reduce the burden on suppliers who do not wish to make environmental claims or cannot determine the source of their electric power.⁴¹ Some states allow the use of “default” labels in certain circumstances. One type of default label allows a supplier to list the environmental characteristics of the regional or system average, rather than the environmental characteristics of the supplier’s specific product.⁴² Depending on how the system average is calculated (*e.g.*, whether it would include all electricity produced or only that electricity not specifically identified on suppliers’ labels), this form of default labeling

³⁶*Id.*

³⁷Green Mountain at 10. Green Mountain stated that it “encourages any tool designed to educate consumers with regard to renewable energy,” but indicated that more research is needed to understand the effect of environmental disclosure labels on consumer decision-making. *Id.*

³⁸NEI at 2-3 (stating that information about managed waste material should not be included on an environmental impact label).

³⁹ME PA at 8.

⁴⁰New Power at 5.

⁴¹Note that mandatory disclosure of environmental characteristics has the effect of forcing suppliers to make environmental claims for their products. Not only must suppliers determine and disclose the environmental characteristics, they must also be prepared to substantiate them.

⁴²Michigan, for example, requires its suppliers to provide information on average fuel mix, average emissions, and average high level nuclear waste of the electricity products purchased by a consumer, as well as the regional average fuel mix and emissions profile. *See* Michigan Profile, Appendix A.

may not convey accurate information about suppliers' products. In addition, if the supplier is allowed to use the label when it is not purchasing its electricity from the regional exchange, the information on the label may not accurately reflect the source of the supplier's purchases. An alternative default labeling policy would allow suppliers affirmatively to indicate, on the required label, that they are not providing information about the environmental characteristics of their products (e.g., "no information supplied").

Still another alternative environmental labeling policy might be to require suppliers to use a standard environmental label only if they make environmental claims.⁴³ This "triggered" approach would reduce the costs on suppliers that do not make environmental claims. It would also provide consumers with specific information about those products that are marketed as "environmentally friendly." At the same time, however, it may be very difficult in some cases to determine whether or not a supplier is, in fact, making an environmental claim in its advertising (*i.e.*, if the supplier uses imagery or subtle references). In many cases, this may create uncertainty and confusion for both suppliers and regulators.

Although many states have addressed labeling

⁴³New Jersey requires suppliers who make environmental claims to use a "claim label" that displays the characteristics of the product that the supplier intends to provide. New suppliers who do not make such claims can use a default label that displays historic averages for the region. Existing suppliers in New Jersey who do not make environmental claims must use a historical label that displays averages for that supplier over the past 12 months. *See* New Jersey Profile, Appendix A.

issues, the states have not universally coordinated their efforts.⁴⁴ According to Exelon, different states employ inconsistent terminology and labeling requirements.⁴⁵ In some regions, such as New England, however, states have coordinated their labeling efforts to develop a common standard. In addition, a joint undertaking of state utility regulators has developed a model information disclosure policy for implementation by the states.⁴⁶

A few commenters suggested that a federal energy labeling requirement may be useful because it may help avoid consumer confusion and reduce supplier labeling costs, especially when power is being sold across state lines.⁴⁷ Reliant supported national standards for supplier labeling, so "suppliers serving multiple states would be able to reduce transaction costs for compliance of supplier labeling and disclosure and pass these savings on to the retail customers."⁴⁸ In addition, the Commission has supported the use of standardized labels to provide important information to consumers as they participate in retail electricity markets.⁴⁹

By contrast, another commenter suggested that the federal government should refrain from

⁴⁴NJ Ratepayer at 3.

⁴⁵Exelon at 13.

⁴⁶NARUC at 6. The model policy was developed after a major research effort and can be accessed at the National Council on Competition and the Electric Industry website: www.ncouncil.org.

⁴⁷ME PUC at 4-5 and MinnPower at 8.

⁴⁸Reliant, Ex. A at 1.

⁴⁹*See* Bliley Letter.

setting a mandatory national standard and should instead “foster a cooperative interstate effort to elaborate the variety of characteristics which can be labeled.”⁵⁰ The Michigan commission indicated that it would support model standards, but not federal mandates.⁵¹

3. Consumer Education

States, utilities, and others have employed a variety of methods to bring information to consumers, including: websites, telephone and brochure offerings, speaking engagements, bill inserts, and news coverage. Most commenters stated that education programs, when properly conducted, can have a positive effect on retail competition, as a supplement to private advertising to educate consumers about the movement to retail competition. State administered education programs can provide consumers with some information that suppliers may not necessarily have the incentive or ability to provide accurately in their own marketing efforts.

Two states have taken surveys of public awareness levels and, in one case, the number of customers who shopped, to measure the success of the state’s education program and reassess informational needs as the program unfolded.⁵² The Pennsylvania survey found that, after the first year of its public education program, 94 percent of customers were aware that they could choose a supplier. Accordingly, in the second year, the state shifted the public education focus

to details of “how to shop.”⁵³

Some commenters suggested that education efforts should not be limited to early stages of the transition to retail competition, but should be continued as the market develops, because many consumers may choose to wait before they participate.⁵⁴ Moreover, consumer education plans that simply raise awareness about competition but fail to provide “nuts and bolts” information may not equip consumers with the information they need to participate effectively.⁵⁵

Several retail suppliers argued that consumer education programs should be funded through a competitively neutral mechanism and implemented by an independent third party.⁵⁶ These suppliers opposed the implementation of education programs by the utilities. Instead, several claimed that the education efforts should be coordinated by state utility commissions and run by professional consultants with input from all stakeholders. Several states have charged their public service commissions with the responsibility for consumer education and the commissions have, in turn, established advisory

⁵³PA PUC at 16.

⁵⁴ECA at 5 and Green Mountain at 7. Maine has addressed this concern by reserving a portion of its consumer education funding for later use. *See* ME PA at 7.

⁵⁵AARP at 5 and NJ Ratepayer at 2-3.

⁵⁶Green Mountain at 6-7, MidAmerican at 2, and NEMA at 3. The NJ Ratepayer Advocate noted that New Jersey’s consumer education program was not very successful due to control by the incumbent utilities. NJ Ratepayer at 3.

⁵⁰PA OCA at 8.

⁵¹MI PSC at 4.

⁵²PA PUC at 15-17, NYPSC at 5.

boards consisting of consumers and suppliers.⁵⁷

D. Restrictions on Distribution Utilities' Behavior

Many commenters were concerned about the competitive effects in retail electricity markets of policies that govern how a distribution utility is able to participate in retail markets through unregulated affiliates.⁵⁸ Certain kinds of discriminatory treatment of electricity suppliers by the distribution company or cost-shifting from the affiliate to the utility can have a significant adverse effect on the development of competitive retail markets. Policies in this area may also affect whether consumers form an accurate understanding of the unregulated affiliate's identity and position in the market.

1. Cross-Subsidization

If regulated utilities subsidize their competitive affiliates by shifting affiliate costs to the distribution utility, and thus to ratepayers, efficient resource allocation and the development of competitive markets can be impeded. If some

⁵⁷PEPCO at 2-5 (citing to the process in Maryland and the District of Columbia) and MI PSC at 3.

⁵⁸New Power at 7, NARUC at 6-7, Enron at 6, Green Mountain at 7-8, NEMA at 5, PGCG at 5, IURC at 1-3, EEI at 14-15, PA OCA at 15, ACCA at 2-6, CFCRM at 3-6, and NAFC at 2-22. Commenters' concerns covered both retail electricity markets and markets for non-electricity products – *e.g.*, electric appliances or natural gas – in which a regulated electric utility might compete through unregulated affiliates. In the area of retail electricity markets, there is also a concern about the utility's provision of standard offer service that competes with unregulated retail supplier electricity products. Green Mountain at 7-8.

of the affiliate's costs are paid by the utility (and added to the utility's rate base), ratepayers will have subsidized the affiliate, and the affiliate will have a cost advantage relative to independent suppliers that is not due to legitimate efficiencies. This kind of cost shifting distorts retail electricity markets. Such anticompetitive cross-subsidization can occur, for example, through the use of accounting methods that do not accurately allocate costs. Thus, a key policy issue is how best to ensure that such behavior does not occur.

2. Discrimination in Access to Distribution Lines, Customer Referrals and Customer Information

A regulated distribution utility, by virtue of its continued ownership and operation of the distribution lines, controls certain kinds of competitively significant inputs that cannot be practically duplicated by other entities. Access to distribution utilities' lines, to deliver retail electricity, is clearly essential to retail suppliers. In addition, the utility is uniquely positioned as a first point of contact with customers, to make referrals to specific retail suppliers. Another valuable asset controlled by utilities is certain types of customer information (*e.g.*, customer usage data). Competitive markets require that unaffiliated retail suppliers have the same access rights to these services as the utility's affiliates. (Access to some services may be denied to all suppliers, including affiliates.) Numerous comments expressed concern that, without safeguards, the distribution utility might not be impartial toward independent suppliers.⁵⁹

⁵⁹Green Mountain at 7-8, NARUC at 7, NEMA at 5, ACCA at 2-6, New Power at 7, EEI at 14, and IURC at

3. Policy Approaches

One possible approach would be to prohibit the distribution utility from participating in the unregulated retail market. This would remove the opportunity to engage in the kind of cross-subsidization and discrimination discussed above. But this prohibition also would prevent the realization of any economies of scope that otherwise might exist.⁶⁰ Another possible approach would be to allow distribution companies to participate in the retail electricity market, but only through requiring separate operations of the utility and its unregulated affiliate(s).⁶¹ Such separation can entail requirements that the utility not share employees or assets with its affiliate, and may even require financial separation whereby the unregulated affiliate's creditworthiness is determined without reference to the traditional utility's assets or regulatory status. These rules are often included in "codes of conduct" adopted by states to govern the relationships among utilities, their unregulated affiliates, and other market participants. Rules requiring financial separation may be difficult to enforce,⁶² leading some states to impose more structural-type

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⁶⁰EI at 14.

⁶¹Shell at 8-9, ACCA at 5-6, NARUC at 6-8 & Appendix F.

⁶²OCC (attachment titled "Responses to Questions of Chairman Bliley by the Ohio Consumers' Counsel") at 5 and IURC at 3. Also, there are disagreements regarding the proper compensation for transactions between a regulated utility and an unregulated affiliate. Compare EEI at 15 (incremental cost) with NARUC at Appendix F and NAFC at 18-22 (market value).

restrictions on the utility's participation in retail markets.⁶³

Codes of conduct also contain rules intended to address concerns about discrimination by distribution utilities. Some commenters advocated that these rules should include bans on certain activities, such as joint marketing between a distribution utility and its energy affiliate.⁶⁴ Many states, including Arizona, New Jersey, and Texas, prohibit distribution utilities from engaging in joint advertising with their affiliates.⁶⁵

4. Affiliate Use of the Distribution Utility's Name and Logo

Many states have addressed the competitive effects of allowing an unregulated affiliate to use the same or similar name and logo of the regulated distribution utility.⁶⁶ Commenters generally analyzed this issue in terms of either the potential for cross-subsidization and discrimination by distribution utilities⁶⁷ or the procompetitive and informational benefits that

⁶³For example, Maine's restructuring legislation prohibits more than a 33% market share of utility affiliates in the utility's service territory. ME PA at 11.

⁶⁴Shell at 8-9.

⁶⁵The notable exception is Ohio, which, in addition to allowing joint advertising and marketing, has placed only limited restrictions on the affiliate's use of the name and logo of the distribution utility. See State Profiles, Appendix A.

⁶⁶See, e.g., Md. Pub. Serv. Comm'n, *Re: the Investigation into Affiliated Activities, Promotional Practices and Codes of Conduct Of Regulated Gas and Electric Companies*, Order no. 76292, Case No. 8820 (Jul. 1, 2000).

⁶⁷See generally NAFC at 15-16.

could flow from affiliate use of the same or similar name and logo of the distribution utility.⁶⁸ One commenter noted another dimension of this issue -- the potential for consumer misunderstanding about the relationship between a distribution utility and its unregulated affiliate when the two use the same name and logo.⁶⁹ If use of the distribution utility's name and logo implies to consumers that the affiliate can deliver a superior quality product, due to its affiliation, when in fact the affiliate's product is not superior to that of its competitors, then such use might be considered deceptive.⁷⁰

Most of the states with retail competition programs allow an affiliate to use the distribution utility's name and logo (or one similar to it), but require a disclaimer stating that the affiliate is not regulated and is not the same company as the distribution company. Some disclaimer requirements also require the affiliate to inform consumers that they have no obligation to buy the affiliate's products in order to continue to receive regulated services from the distribution utility. Thus these disclaimers attempt to correct possible misimpressions by the consumer regarding the regulatory status of the affiliate and whether the utility services are tied to purchase of the affiliate's product.

⁶⁸NRECA at 7-8, ICC at 11, and MidAmerican at 3-4.

⁶⁹MidAmerican at 3-4.

⁷⁰MidAmerican, although it opposed restrictions on affiliate use of name and logo, nonetheless noted that advertising or claims of superior service as a result of affiliation with the regulated distribution company should be prohibited. *Id.* at 4.

Several commenters supported the use of disclaimers (as opposed to banning affiliate use of the name and logo), arguing that they appear to be an effective way of educating consumers about the difference between the regulated and unregulated entity.⁷¹ Some commenters said that disclaimers can correct any consumer misimpressions caused by affiliate use of the distribution company's logo and name.⁷² But other commenters were skeptical that disclaimers are sufficient to convey the correct information to consumers.⁷³ Empirical evidence suggests that the effect of the disclaimer is incomplete; one study conducted for the Public Utilities Commission of Nevada indicated that consumers are confused by the affiliate's use of the parent's name, and that the addition of a disclaimer does not appreciably reduce that confusion compared to requiring use of a dissimilar name and logo by the unregulated affiliate.⁷⁴

If regulated distribution utilities are allowed to grant the use of their name and logo to their affiliates, then in some cases there is likely to be significant value associated with that use, even when a disclaimer is required.⁷⁵ Some commenters argued that this value should

⁷¹Allegheny at 4, PA PUC at 23.

⁷²Exelon at 17-18, NRECA at 7-8.

⁷³NAFC at 24, NJ Ratepayer at 4-5.

⁷⁴Manoj Hastak, *Energy Company Advertising Study*, Conducted for the Public Utilities Commission of Nevada (Dec. 1998).

⁷⁵This value may be due to real efficiencies in reduced search time for consumers, or it may be due only to the ability to gain from consumer misperceptions, as discussed above.

belong to the utility's ratepayers, since it is by virtue of being a regulated monopoly that the name and logo take on such value in a competitive market.⁷⁶ Other commenters stated that the value of name and logo use belongs to the shareholders of the utility, because it is their investment that created it.⁷⁷ The answer to the question of who rightfully should benefit from the value of using the utility name and logo depends on what assumption is made about the implicit contracts underlying the "regulatory compact" and regulated utility shareholder agreements.⁷⁸

E. Other Consumer Issues

1. Customer Aggregation

Several organizations and companies expressed support for customer aggregation in their

⁷⁶See, e.g., NAFC at 23-27.

⁷⁷ICC at 11 and Alfred E. Kahn, *Deregulation: Micromanaging the Entry and Survival of Competitors* at 23-27 (submitted by EEI).

⁷⁸The National Alliance for Fair Competition argues that, despite the fact that a utility may own its name, ratepayers have served to build the value of name recognition over the years in which the utility was a monopoly. Thus, it alleges that, since the benefits of name recognition to a regulated monopoly are extremely limited, utility ratepayers should receive the value of affiliate use of the name and logo, which can be of considerable worth in a competitive market. NAFC at 19. Shell also alleges that "stranded benefits (meaning windfalls to the utility from the restructuring process) have not been used to support or promote a competitive retail market." Shell at 4. The opposing view is that a utility's ratepayers pay the cost of services rendered to them, but do not make investments or receive ownership rights to utility assets.

comments.⁷⁹ According to one commenter, with aggregation, "small consumers gain access to competitive pricing by minimizing supplier transaction costs and by allowing suppliers to make informed resource and risk management decisions."⁸⁰ Potential sources for aggregation arrangements include buying cooperatives, local governments, business chains, trade associations, and schools. Although successful aggregation can occur with little or no involvement of government entities, states should consider the effect of their policies on the ability of groups to employ beneficial aggregation arrangements.

It appears that many states have allowed and, in some cases, encouraged aggregation through a variety mechanisms. In some cases, states have expressly permitted arrangements that allow consumers to obtain electricity through entities, such as buying clubs, with which the consumers are associated.⁸¹ Some commenters suggested that Ohio, in particular, has been successful in encouraging aggregation.⁸² In that state, local governments and groups such as trade associations, professional organizations, school districts, businesses, churches or neighborhood associations can aggregate consumers after the group or government has been certified to do so

⁷⁹Green Mountain at 8, EPSA at 7-8, and Enron at 5.

⁸⁰Enron at 5.

⁸¹See, e.g., ICC at 10.

⁸²See, e.g., OCC at 1. "In February 2001, Green Mountain Energy Corporation . . . was selected to serve over 400,000 Ohio electricity customers in the country's largest-ever energy aggregation contract." www.newrules.org/electricity/defaultohio.

by the Ohio commission.⁸³ Under this approach, consumers voluntarily sign up with the entity that will buy power for them. In addition to allowing residents to sign up with their local governments voluntarily, Ohio allows local governments to serve as the default buyer for all customers if residents approve such an arrangement through a referendum. When a referendum establishes the local government as the default buyer, residents must affirmatively choose a different supplier if they wish to purchase their power through or from another entity.

Although there may be a variety of ways to address aggregation, states should pay attention to consumer choice concerns that may arise, particularly if entities attempt to place individuals into these arrangements automatically without notice or a public process (such as a public referendum). Approaches that do not give consumers effective choice may undercut the benefits of competition, which depends ultimately on the consumer's ability to choose.

2. Public Benefit Programs

Many commenters stated that there would be a continuing need for public benefit programs (*e.g.*, low-income assistance programs) under retail competition.⁸⁴ NARUC, for example, stated, "a fundamental responsibility of State and federal electric utility regulators in this transition period is to assure that vital public interests and

established public benefits will be preserved in any restructuring of the electric utility industry."⁸⁵ Some commenters emphasized the need to increase such programs in light of energy cost increases and the large proportion of income already devoted to energy purchases by low-income households.⁸⁶ A key concern, however, was to ensure that low income assistance programs do not distort the economics of entry.

Other commenters, including alternative suppliers, believe that low-income programs should "be portable" -- that is, that low-income households should not have to take standard offer service in order to obtain assistance.⁸⁷ These commenters also support financing such programs through "competitively neutral" charges⁸⁸ or general tax revenues.⁸⁹ A particular concern for these commenters is that the price of standard offer service not be based on the needs of low-income residential customers because this would likely result in competitive distortions.⁹⁰ One association of alternative suppliers suggested that aggregation of low-income residential customers could reduce costs of

⁸³See

www.state.oh.us/cons/publications/aggregation.asp.

⁸⁴See, *e.g.*, AARP at 4, Cleco at 5, ECA at 7, Exelon at 26-27, MidAmerican at 7, NEMA at 13, Shell at 17, and UWUA and the MUPHT at 12-13

⁸⁵NARUC at 12.

⁸⁶AARP at 1-2, and UWUA and the MUPHT at 12-13.

⁸⁷AARP at 5, Cleco at 5, MidAmerican at 7, and Shell at 17.

⁸⁸ME PA at 19 and MidAmerican at 7. Maine, for example, specifies that support will come from an additional distribution charge.

⁸⁹Cleco at 5.

⁹⁰Green Mountain at 5, MidAmerican at 7, NEMA at 13, and Shell at 17.

acquiring and serving these customers.⁹¹

A number of additional types of public benefit program elements, such as energy conservation, renewable fuel, clean-coal technology development, and customer education,⁹² were identified in several comments. But, there were no specific comments on design or funding for these elements or views expressed either for or against their continuation.

F. Conclusions

- States have adopted measures to protect consumers who are able to choose among competing suppliers in retail electricity markets. A key policy goal is how best to meet important consumer protection objectives while minimizing compliance requirements for competing energy suppliers. Avoiding unnecessary state-imposed costs and burdens will accelerate the evolution of competitive retail electric power markets.
- Initially, a diversity of regulatory programs across states can help to identify the best approaches to protecting consumers while imposing minimal burdens on suppliers. Subsequently, however, significant cost reductions to electricity suppliers may follow from uniform supplier licensing and customer switching rules across the states. To that end, industry members have been working to develop model uniform rules.

⁹¹ NEMA at 13.

⁹² ICC at 20 and 21, ME PUC at 9, MI PSC at 9, NJ Ratepayer at 9, and NYPSC at 17.

If the states, in turn, implement consistent regulatory frameworks, such rules can lead to significant benefits for market participants and consumers.

- Consumers' choices will be made most efficiently if consumers are exposed to accurate, timely and comparable information about retail suppliers of electricity. Enforcement of truth-in-advertising laws will help ensure that suppliers make truthful, nondeceptive, and substantiated advertising claims in the new retail marketplace.
- Standardized labeling of retail electricity products and services may be beneficial to consumers and competing electricity suppliers, as long as it allows suppliers to provide additional information as they begin to offer innovative services and products to customers. Whether required by differing state rules or uniform rules across the country, mandatory disclosures to consumers can help ensure that consumers receive, before purchase, accurate information important to their purchasing decisions in a newly restructured market. Excessive disclosure requirements, however, may discourage the provision of information, particularly in advertising. Uniform rules can reduce supplier labeling costs, but they reduce the ability of states to tailor the rules to their own policy needs.
- Policies are needed to prohibit vertically integrated utilities from anticompetitively (1) shifting costs from their unregulated generation and retail operations to their regulated distribution and default service

operations, and (2) exercising discrimination in the provision to retail suppliers of inputs over which the utility has a monopoly.

- Consumer education programs that provide general information to increase consumer awareness about retail

competition, as well as “nuts and bolts” information to allow consumers to shop effectively and select their supplier, will help to ensure that consumers have the information they need to participate effectively in competitive retail electricity markets.