

**Before the Alabama Public Service Commission
Docket No. 26427
Restructuring in the Electric Utility Industry**

**Comment of the Staff of the
Bureau of Economics
of the Federal Trade Commission***

January 8, 1999

* This comment represents the views of the staff of the Bureau of Economics of the Federal Trade Commission. They are not necessarily the views of the Federal Trade Commission or any individual Commissioner.

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I. Introduction and Summary

The staff of the Bureau of Economics of the Federal Trade Commission (FTC) appreciates this opportunity to present its views to the Alabama Public Service Commission (APSC) concerning restructuring in the electric utility industry. Alabama is among a large number of states considering regulatory reforms to bring more of the benefits of competition (lower prices, improved service, and innovation) in the electric industry to its citizens and businesses.

The FTC is an independent administrative agency responsible for maintaining competition and safeguarding the interests of consumers. The staff of the FTC often analyzes regulatory or legislative proposals that may affect competition or the efficiency of the economy. In the course of this work, as well as in antitrust research, investigation, and litigation, the staff applies established principles and recent developments in economic theory and empirical analysis to competition issues.

The staff of the FTC has a longstanding interest in regulation and competition in energy markets, including proposals to reform regulation of the electric power and natural gas industries. The staff has submitted numerous comments concerning these

¹ This comment represents the views of the staff of the Bureau of Economics of the Federal Trade Commission. They are not necessarily the views of the Federal Trade Commission or any individual Commissioner. Inquiries regarding this comment should be directed to John C. Hilke (303-844-3565).

² The staff of the FTC has commented to the Federal Energy Regulatory Commission (FERC) on electric power regulation in Docket RM98-4-000 (Sept. 11, 1998); Docket No. PL98-5-000 (May 1, 1998); Docket Nos. ER97-237-000 and ER97-1079-000 (Feb. 6, 1998) (NEPOOL Comment); Docket No. RM96-6-000 (May 7, 1996); Docket Nos. RM95-8-000 and RM94-7-001 (Aug. 7, 1995) (Open Access Comment). The staff of the FTC also has submitted comments to various state agencies, which are included on the FTC's website <www.ftc.gov/be/advofile.htm>, including the Louisiana Public Service Commission, Docket No. U-21453 (affiliate transactions) (Oct. 30, 1998); Public Utility Commission of Nevada, PUCN Docket No. 97-5034 (affiliate transactions) (Sept. 22, 1998); Mississippi Public Service Commission, Docket No. 96-UA-389 (Transco proposal) (Aug. 28, 1998); Louisiana

reforms in the United States and abroad often have provided substantial net benefits. These benefits have gone beyond lower prices and lower costs to include technological advances and increased variety of products and services. In this section we also discuss how a state with low-cost generation may preserve low prices for its electricity customers during the transition to competition.

Section III of the comment addresses the narrow issue of how to avoid a possible unintended anticompetitive consequence that could flow from certain methods of stranded cost recovery. If the APSC chooses to implement stranded cost recovery, the staff recommends that it do so in a way that discourages anticompetitive conduct by vertically-integrated incumbent electric utilities and reduces distortions in future electricity purchase decisions of consumers and businesses.

The comment focuses on market structure in Section IV. We observe that traditional regulation may remain appropriate for transmission and distribution assets, while most other aspects of the industry should be candidates for competition.

Section V defines the term market power and presents costs and benefits of open-access rules and independent systems operators (ISOs). This section also provides economic insights on utility affiliate rules and compares the role of states in evaluating and remedying market power in the retail competition and merger contexts.

In Section VI, we observe that large, regional ISOs or other independent transmission entities may be attractive from a reliability perspective as well as from a competitive perspective.

II. Public Interest and Regulation

³ APSC, Scheduling Order, Docket 26427 at 3 (June 16, 1998). We have not attempted to identify sources of Alabama's relatively low electricity prices compared to nearby areas of Florida and Arkansas. We note that lower rates prevail in sections of other states within the South and South Central regions, including Mississippi, Kentucky, Virginia, and Oklahoma. Ronald J. Binz, Thomas Feiler, and Michael J. McFadden, Navigating a Course to Competition: A Consumer Perspective on Electric Restructuring 36-39 (1997).

⁴ Exports of electric power from generators located in Alabama would compete on the basis

⁵ Economies of scale are present if, when all inputs are adjusted optimally, average costs decline as output increases within a firm. Economies of vertical integration occur when a single firm's performance of activities at two or more stages of production yields lower average costs. See Jean Tirole, The Theory of Industrial Organization 16-21, 288 (1989).

⁶ See, e.g., John E. Kwoka,

combined-cycle gas plants may be less than one quarter the size of efficient coal or nuclear plants.⁷ Deregulation of natural gas and the resulting decline in natural gas prices relative to other fuels has spurred this new technology. At the same time, new institutional arrangements, particularly ISOs, are expected to be able to capture many of the benefits of vertical integration without many of the costs.⁸ Thus, much of the genesis of regulatory reform in the electric industry has been technological innovation in generation and organizational innovation in transmission.

In a variety of industries, extensive economic research on the actual effects of regulatory reform has revealed a general pattern of strong net benefits of several types, including cost savings, technological advancements, and increased variety of products

⁷ See Timothy Brennan et al., A Shock to the System 16-19 (1996); FERC Order No. 888 (Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities), 61 Fed. Reg. 21539, 21544 (May 10, 1996) (Order No. 888). Advances in microturbine and other distributed generation technologies may further extend this trend in the future. See, e.g., Brian O'Reilly, Transforming the Power Business, Fortune (May 11, 1998); Joanne Von Alroth, Generating Interest, Current Events: Microturbines Tout Cheaper, More Reliable Power, Crain's Chicago Business (Apr. 13, 1998); Thomas R. Casten, Electricity Generation: Smaller Is Better, 8 Elect. J. 65-72 (1995); Clyde Wayne Crews, Jr., Electric Utility Reform: The Free Market Alternative to Mandatory Open Access, Competitive Enterprise Institute <www.electricity-online.com/crews.html> (1998).

⁸ One potential difficulty with the nonprofit status of ISOs is the lack of incentives to operate efficiently and make economically appropriate investment decisions regarding expansion of the transmission grid. ISO governing bodies typically provide incentives for managers to operate the grid efficiently and to diminish transmission bottlenecks by arranging for appropriate additions to transmission capacity.

⁹ Surveys of this literature include: Clifford Winston, U.S. Industry Adjustment to Economic Deregulation, 12 J. Econ. Persp. 89-110 (Summer 1998), and Economic Deregulation: Days of Reckoning for Micro-economists, 31 J. Econ. Lit. 1263-1289 (Sept. 1993); John C. Hilke, Competition in Government-Financed Services (1992); Paul L. Joskow, Effects of Economic SFegulation ,

¹¹ Some shifts in demand away from peak periods may be easy to accommodate without any incremental investment on the part of customers (i.e., operating household appliances during off-peak hours). Other shifts may be facilitated by investments in computer technology (e.g., "smart" metering that automatically adjusts energy usage in response to price changes), energy storage devices (e.g., air conditioning systems that chill water in off-peak periods to use for cooling during peak electricity demand periods), use of alternative energy sources (e.g., use of gas heat rather than electric heat during peaks in electricity demand), or distributed generation (e.g., microturbines).

¹² In addition to being economically attractive to some consumers, time-of-day metering

¹⁴(...continued)

Restructuring 38-39 (1997). Since these estimates were made, estimates of net stranded costs have generally declined because auctions of generating assets in various parts of the country have generally received bids considerably in excess of the book value of the assets. If this pattern holds true for Alabama, part or all of the state may well have net stranded benefits.

¹⁵ Some states also have relied on rate caps to assure that consumers not pay higher prices during the transition to competition.

¹⁶ Presentation of Commissioner Richard H. Cowart, Chair, Vermont Public Service Board, Sixth DOE-NARUC National Electricity Forum, Houston, Texas, Sept. 17, 1998. To avoid

net stranded benefits. Finally, retail competition is likely to provide other benefits in the form of new services and lower costs that will offset any price effects of diversion.

III. Stranded Cost and Benefit Recovery: Potential Distortions

Alabama is among a number of states examining public interest issues surrounding recovery of stranded electric utility costs and benefits. The staff takes no position as to whether stranded cost and benefit recovery is in the public interest -- a determination best made by state and local regulators with knowledge of unique local circumstances. Whether and how to implement stranded cost and benefit recovery raises many complex policy issues that reach far beyond the scope of this comment. Instead, we address the narrow issue of how to remedy an unintended anticompetitive consequence that could flow from certain methods of stranded cost or benefit recovery in the event the APSC decides to permit vertically-integrated, incumbent electric utilities to recover net stranded costs or to permit customers to recover net stranded benefits.

Certain net stranded cost recovery systems may create artificial incentives for incumbent utilities to set prices that deter entry and harm competition. If the APSC finds that there are net stranded costs in an area and chooses to implement stranded cost recovery, we recommend that it do so in a way that discourages such anticompetitive conduct by incumbent firms.

In addition, we briefly discuss (1) potential market distortions and inefficiencies that may accompany stranded cost and benefit recovery and ways to minimize such inefficiencies, and (2) mitigation of the level of stranded costs. These two issues were

examined in the attached Open Access Comment to the Federal Energy Regulatory Commission.

A. A Possible Unintended Consequence: Stranded Cost Recovery May Create Artificial Incentives to Deter Entry

One potential unintended consequence of stranded cost recovery is that incumbent firms may be able to use the stranded cost recovery system to deter potentially more efficient and innovative entry¹⁷ and thereby delay or harm competition.¹⁸ If that occurred, electricity customers (municipalities, businesses, and consumers) would lose not only the benefits of price competition but also those flowing from the product and service improvements and increased product variety that competition brings. They would likely pay more than they otherwise would during the period after the stranded cost recovery period ended. The APSC could safeguard against these unintended consequences, however, by adopting, in conjunction with any stranded cost recovery system, one of three possible remedies discussed in Section III.C, infra.

Consumers could be harmed by the exclusion of efficient entrants during the stranded cost recovery period. The harm could result because of a connection between the way stranded costs are defined and a decision by state regulators to provide

¹⁷ Entry in generation could take the form of new generation facilities, or it could consist of improved transmission capacity that makes distant generation sources more effective competitors to local generation sources.

¹⁸ This discussion is developed in the context of retail competition and retail stranded costs. Similar concerns may arise concerning wholesale competition and stranded costs.

incumbent utilities with recovery of most or all of their stranded costs through surcharges on electricity use.¹⁹ Stranded costs are often defined by calculating the difference between the (larger) net present value of future income under traditional regulation using a rate-of-return concept and the (smaller) net present value of future income under regulatory reform. That is, the net present value of the income from a particular generation asset in a competitive environment is expected to be less than the income regulators would allow from a particular asset in a regulated environment.

When stranded costs are defined in this manner, the level of stranded cost recovery is inversely related to how far prices for electric power (energy charges) fall as the result of competition.²⁰ From the incumbent's perspective, there is an increase in revenue from stranded cost recovery for every revenue decline due to lower energy charges. With 100 percent stranded cost recovery, as some regulators have chosen, the offset is dollar-for-dollar. By contrast, the potential generation entrant has no stranded cost recovery revenue to offset lower energy charges. Thus, it could be disadvantaged

¹⁹ Recent publications that discuss specific instances and present a similar discussion of the issues include Richard Pierce, Conceptual Issues Raised by the PECO/Enron Dispute, 11 *Elect. J.* 26-38 (Apr. 1998); and Jeffrey D. Watkiss, Retail Competition: Preliminary Results, Electric Utility Consultants' Transmission Pricing Conference, Denver, Colorado (June 26-27, 1998).

²⁰ Under traditional regulation, the price of electricity is a bundled price that includes generation and transmission/distribution components blended together. Under most competitive scenarios, the individual components are unbundled and reported separately. Here we refer to the generation component of traditional rates as the "energy charge" and the transmission/distribution components as the "lines charge."

by such a stranded cost recovery system because it may need to match the incumbent's lower energy charges in order to compete, but may lack the wherewithal to do so.

As competition in generation is about to begin, the vertically-integrated incumbent must decide what price (energy charge) to set for the electricity it generates. If it establishes an artificially low energy charge,²¹ entry would be less likely to take place and competition from entrants may be less likely to reduce the incumbent's future profits.²² Stranded cost recovery revenue effectively could subsidize such artificially low energy charges, without proportionately reducing the total charges to consumers.

Customers that leave a vertically-integrated incumbent and choose a new electricity supplier will typically be required to pay an energy charge, a lines charge, and a stranded cost recovery surcharge as part of their monthly electricity bill during the stranded cost recovery period.²³ Because many stranded cost recovery proposals incorporate an equalization-type formula -- such that stranded cost is defined as the

²¹ The level of the incumbent's energy charge necessary to deter entry depends, in part, on the costs faced by prospective entrants. Establishing a very low energy charge -- one that is below the expected variable costs of potential entrants, for example -- is quite likely to deter entry.

²² In theory, if a state determines not to permit 100 percent stranded cost recovery, the utility's incentive to engage in entry-detering pricing of energy charges will be weakened, depending upon the amount not recovered. Although the aggregate stranded cost recovery amount is lower, which should result in a lower total price for electricity to consumers and increased output by producers, the actual effect on output may be slight because electricity demand is commonly thought to be relatively inelastic, at least in the short run.

²³ Although the new supplier would bill and collect these three charges, it would remit the stranded cost recovery surcharge to the vertically-integrated incumbent.

remainder after subtracting energy and lines charges from the sum of the total charges projected under traditional rate-of-return regulation -- a decrease in the energy charge prompts an offsetting increase in the stranded cost surcharge. In this circumstance, a decrease in energy charges may not be associated with any change in the total charges (price) for consumers and, thus, would be unlikely to result in increased output. Such a system also would provide less incentive for the incumbent firm to produce efficiently or to mitigate stranded costs.

Under this scenario, stranded cost recovery might become a license to block or eliminate entry, even if the entrants would be more efficient and innovative. As addressed in Section III.C infra, however, at least three alternative remedies (including a structural remedy) may be effective to prevent this from occurring.

B. Why Vertically-Integrated Incumbents May Wish to Deter Entry

From the incumbent firm's perspective, deterring entry may be attractive if delays in entry (1) increase costs for entrants, or (2) slow establishment of a competitive

²⁵ Similarly, if entry takes longer than the period allowed for stranded cost recovery, artificially low energy charges during the recovery period may not affect the timing of entry or the length of the transition between the end of the stranded cost recovery period and entry. Assuming that entry is motivated by prospective profit at the time the entry takes place, artificially low prices during the interim are unlikely to change the potential entrant's evaluation of the attractiveness of entry so long as entry takes longer than the stranded cost recovery period.

²⁶ A policy of fixing the level of stranded costs at the onset may solve the problem in principle

²⁷ Massachusetts, for example, has required that generation capacity be divested as a condition for stranded cost recovery. Edison Electric Institute, Retail Wheeling & Restructuring Report, A Quarterly Report 65 (Mar. 1998). New York State similarly has required divestiture of most generating facilities. Edison Electric Institute, Retail Wheeling & Restructuring Report, A Quarterly Report 91 (June 1998). This approach also provides certainty about the magnitude of stranded costs by defining stranded costs as the gap, if any, between the sale price of the plants and their regulated (book) value. California has required divestiture of a large portion (50 percent) of generation assets. California, Brubaker & Associates Electric Industry Restructuring Newsletter 1 (Oct. 1998). To date, all

2) Establish minimum energy charges for the incumbent utility that reflect at least its fuel costs. If the incumbent utility is required to set its energy charges at least at the variable costs of fuel, alternative suppliers with lower fuel costs may find sufficient incentives to enter.²⁹ The regulator's tasks of collecting data, monitoring compliance, and determining variable costs (assuming variable costs can even be determined) under this type of rule, however, would require significant resources. Although this approach may discourage entry-detering prices, it also risks discouraging competitive price reductions aimed at, for example, promoting the sampling of new products, enhancing the demand for complementary products, or learning more about demand elasticity.

3) Establish caps on electricity prices during a transition period that extends for a fixed interval beyond the stranded cost recovery period. The price cap would reduce the ability of the incumbent utility to take advantage of the lack of entry during the recovery period by raising rates immediately thereafter. One drawback of this

²⁸(...continued)

event the seller's affiliate(s) are allowed to bid. Divestiture to a single entity will not generally address existing generation market power. Divestiture to more than one entity is likely to increase competition in the relevant market(s).

²⁹ Fuel costs (including transportation costs for fuel) typically represent a substantial proportion of total generation costs, and differences in fuel costs typically represent a large portion of the difference in the relative costs (both total and variable) of various generating facilities. Hence, a minimum energy charge set at fuel costs represents both a substantial difference from a near-zero energy charge, and a sufficient inducement to entrants to invest either in new generation with low fuel costs or in new transmission providing access to low-cost generation.

approach is that the long-term use of pricing caps may harm competition by muting important economic signals for additional transmission or generation capacity.

D. Potential Inefficiencies and Distortions from Stranded Cost and Benefit Recovery

Different methods of recovering net stranded costs or net stranded benefits could have significantly different economic effects. The likely differences are explored in

³⁰ Net stranded benefit recovery implemented with lower energy charges would have the reverse effect, but would equally distort choices about electricity use. By contrast, payments of net stranded benefits to customers based on past consumption would avoid this type of distortion.

have similar incentives to innovate in order to mitigate threatened losses, such as those that are labeled here as “stranded costs.” But requiring that all mitigation savings be passed through to the departing customers would effectively impose a 100 percent tax on mitigation savings, thereby discouraging additional efforts to mitigate stranded costs.³¹ Other treatments of mitigation savings may not discourage mitigation of stranded costs to the same degree. Stranded cost mitigation incentives are discussed in Section V.B. of our Open Access Comment.

IV. Market Structure: Functions that Can Be Competitively Supplied

To date, technological and organizational innovations allowing competition have centered on generation and marketing of electric power. Additional opportunities for unbundling, such as competition in metering and billing services, appear to warrant serious consideration either as elements of marketing or as separate enterprises. At the same time, there is a considerable degree of consensus that transmission and distribution assets should remain under rate and service regulation for the present³² because economies of scale continue to be a primary consideration for investment in

³¹ In the case of net stranded benefits, full recovery for customers may similarly discourage firms from obtaining such benefits by effectively taxing them at 100 percent.

³² Rate and service regulation of transmission and distribution assets can be consistent with competition to supply energy conveyed over these lines by unbundling transmission and distribution from energy sales.

these assets.³³ The APSC may wish, therefore, to consider establishing competition in all facets of the industry except control of transmission and distribution assets.

V. Market Power

A. Both Horizontal Market Power and Discriminatory Access to Transmission May Be of Concern in the Electric Industry

Market power is typically defined as the ability of a firm (or a coordinated group

³³ Illustrative figures developed by Oak Ridge National Laboratory show that a 765 kV transmission line costs at least 30 percent less than a 500 kV line and at least 85 percent less than a 138 kV line, on a cost per MW-mile basis. FERC Transmission Task Force, Staff Report, pp. 215-16 (1989). As indicated in note 7 *supra*, at some future date, various forms of distributed generation (*e.g.*, microturbines and fuel cells) may allow this element of rate and service regulation to be relaxed as well.

heightened by the pioneering British deregulatory experience. Following the implementation of electric industry restructuring in the United Kingdom, in 1989 and 1990, researchers determined that the two private generating firms that dominated the industry were exercising market power. These findings prompted subsequent orders for divestiture of generation capacity. In addition to horizontal market power, the APSC may want to examine closely the incentives and ability of a vertically integrated transmission monopolist, whose rate of return is regulated, to evade the regulatory constraint in order to earn a higher profit. Its participation in an unregulated market may give it the means to do so, either by discriminating against its competitors in the unregulated market or by shifting costs between the regulated and unregulated markets.³⁴

³⁴ See Timothy Brennan, Why Regulated Firms Should Be Kept Out of Unregulated Markets: Understanding the Divestiture in United States v. AT&T, 32 Antitrust Bull. 741 (1987), and Cross Subsidization and Cost Misallocation by Regulated Monopolists, 2 J. Reg. Econ. 37 (1990).

³⁵ See, e.g., "Petition for a Rulemaking on Electric Power Industry Structure and Commercial Practices and Motion to Clarify and Reconsider Certain Open-Access Commercial Practices," filed with FERC by Altra Energy Technologies, Inc. and others on March 25, 1998. Aside from the question of compliance with FERC Order 888, there is a question about the breadth of its application. While FERC orders generally apply broadly to all energy sales involving interstate commerce, Order 888 does not apply to transmission by traditional vertically integrated utilities to accommodate "native" load. Transmission to accommodate native load accounts for a large portion of total transmission. Order No. (continued...)

Open Access Comment to FERC in 1995 emphasized the limitations of behavioral rules in addressing vertical discrimination in access to transmission. The comment discussed continued incentives to discriminate under open access rules and difficulties in detecting and documenting violations of such rules. Likewise, discriminatory behavior is consistent with the evidence from the Supreme Court's Otter Tail Power decision.³⁶ Although we have not performed an empirical study of the presence of either horizontal market power or transmission discrimination in Alabama, we can provide some insights into the process of making such an assessment and developing remedies if market power is a concern.

B. Several Factors Are Important in Evaluating Horizontal Market Power Issues

Economic analysis of market power includes five primary areas: market definition, market structure, likely competitive effects of the structure or of changing the structure, entry conditions, and efficiencies.³⁷

³⁵(...continued)
888, 61 Fed. Reg. at 21552.

³⁶ Otter Tail Power Co. v. United States, 410 U.S. 366 (1973).

³⁷ Although the DOJ/FTC Merger Guidelines provide a firm foundation for analyzing changes in prospective market power resulting from a proposed merger, the analysis does not focus on detecting or measuring market power that may already exist in the market. Further, antitrust enforcement is focused on anticompetitive mergers and unfair methods of competition. From an antitrust perspective, a firm that lawfully acquired market power does not commit an antitrust offense merely by exercising that power, unless it engages in unfair methods of competition to protect that power. Consequently, antitrust enforcement may not be able to reach such market power as may exist as a market moves from local regulated monopolies to competition. Hence, if it finds that horizontal market
(continued...)

1. Remedies

The APSC May Wish to Use Computer Simulation Models to Help It Assess Horizontal Market Power and Structural Remedies for Market Power

Recently, computer simulation models of generation and transmission that may facilitate analysis of market power issues have become more widely recognized and tractable.³⁸ Our experience in evaluating the PacifiCorp/Peabody merger evidences the potential usefulness of computer simulation models for the analysis of market power and potential structural remedies.³⁹ For example, by simulating various price increases and their effect on pricing in the relevant market(s), computer models can be used to determine relevant geographic markets in a merger analysis or to ascertain whether an entity is engaging in anticompetitive behavior. Various state regulatory agencies and reliability councils also incorporate computer simulation models in their long-range planning efforts. The APSC may wish to consider employing such

³⁷(...continued)

power problems exist in the generation market(s), the APSC may wish to look beyond antitrust enforcement by considering structural relief (i.e., divestiture of generation assets by a transmission monopolist). At the same time, however, if the APSC is contemplating structural relief to correct an existing market power problem, an analysis using the factors set forth in the DOJ/FTC Merger Guidelines may be helpful.

³⁸FERC's Inquiry Concerning the Commission's Policy on the Use of Computer Models in Merger Analysis; Notice of Request for Written Comments and Intent to Convene a Technical Conference, 63 Fed. Reg. 20,392 (1998) ("The purpose of this inquiry is to gain further input and insight into whether and how computer models should be used in the analysis of mergers ...").

³⁹ Federal Trade Commission, "Analysis of Proposed Consent Order to Aid Public Comment In the Matter of PacifiCorp et al.," FTC File No. 971-0091, at 4 (Feb. 18, 1998). The FTC withdrew from the proposed consent order as of June 30, 1998 because PacifiCorp withdrew from the merger <www.ftc.gov/opa/9807/petapp39.98.htm>.

computer simulation models, if it has not already done so, to help it assess existing generation market power and potential structural remedies for such market power.

2. The APSC May Wish to Examine the Sensitivity of Market Power Analysis to Prospective Technical Changes

With rapid technical change, there is an important potential distinction between current market power problems that are transitory and those that are likely to persist despite new technology and new institutions. A good example is the effect of changing technology on entry conditions.⁴⁰ Technological and regulatory changes over the past decade have tended to ease entry obstacles in electricity generation markets. In the comment to the Maine Department of the Attorney General and the Public Utilities Commission, the FTC staff observed that future entry conditions in possible load pockets⁴¹ in Maine may be eased considerably by installation of new natural gas pipelines that can supply fuel to new, smaller gas generators.⁴² New and existing natural gas distribution lines may make entry of new, smaller-scale electric generators quicker and easier in Alabama as well, particularly given the proximity of Alabama's load centers to extensive natural gas fields.

⁴⁰ The competition implications of market concentration are affected significantly by entry conditions. If entry is likely, timely, and sufficient to undermine efforts to exercise market power, then even high concentration may not have adverse implications for consumers. (See the DOJ/FTC Merger Guidelines, Section 3, for a discussion.)

⁴¹ A "load pocket" refers to demand in an area that must be satisfied by generation in that area because transmission congestion prevents utilization of supplies from outside the area.

⁴² <www.ftc.gov/be/advofile.htm (V980011)>

Entry analysis of electric generation markets considers two principal forms of entry. The first is new or expanded generating capacity within the existing product and geographic market. The second is enhanced access to existing generating capacity by virtue of new or expanded transmission capacity. Increased transmission capacity that permits additional suppliers to compete frequently enlarges the relevant geographic market, and consequently tends to reduce concentration in the relevant market(s), even if no additional generation capacity is installed. The APSC may wish to distinguish in its analysis of market power between present market power and one or more future market power scenarios.

Determining how to address an existing market power problem is potentially difficult. Opting to impose new rules and regulations to curtail market power is one potential solution. For reasons articulated in our February 1998 comment to FERC on market power monitoring and mitigation proposals from the New England Power Pool (NEPOOL),⁴³ Alabama may wish to avoid relying exclusively on such behavioral rules. We summarize the drawbacks to relying exclusively on a behavioral approach in four points. First, it is likely to be difficult to detect and document the exercise of market power in many instances (NEPOOL Comment at 5). The need to balance supply and demand in electricity markets continuously and precisely makes electricity trades vulnerable to subtle and short-lived anticompetitive actions that are likely to go undetected because monitoring is complex and costly. Second, behavioral rules for market power mitigation will not eliminate incentives to exercise market power (*id.* at

⁴³ The concerns expressed in the NEPOOL Comment were generalized in our May 1, 1998 ISO Policy Comment to FERC. The NEPOOL Comment focused on potential drawbacks to the market power mitigation proposals made by NEPOOL to FERC. It did not address the empirical issue of the presence or magnitude of existing generation market power in New England <www.ftc.gov/be/advofile.htm (V980007)>. For a review and analysis of the ISO New England's market rules, see Peter Cramton and Robert Wilson, A Review of ISO New England's Proposed Market Rules (Sept. 1998). The authors recommend switching to a multi-settlement system, introducing demand-side bidding, adopting location-based transmission congestion pricing, and fixing the pricing of ten-minute spinning reserves.

potential to address market power with greater certainty and lower costs to consumers (*id.* at 6).⁴⁴

D. ISOs Are Potentially Attractive Institutions for Addressing Many Market Power Issues in the Electric Industry

Both horizontal market power and transmission discrimination concerns can be addressed by ISOs

⁴⁴ Potential structural reforms in the electric industry include a wide variety of alternatives. For a review of alternative market designs for wholesale trades in electricity markets, see Robert Wilson, Report to the Competition Bureau of Industry Canada, Efficiency Considerations in Designing Electricity Markets (Mar. 30, 1998).

⁴⁵ The APSC may also be asked to consider alternatives to a regional ISO, such as a transmission company (a "Transco"). If so, the APSC may wish to consider potential competition and efficiency issues related to Transcos that are identified in the recent FTC staff comment to the Mississippi Public Service Commission <[www.ftc.gov/be/advofile\(v980024\)](http://www.ftc.gov/be/advofile(v980024))>.

⁴⁶ Under authority granted to FERC by the Department of Energy, FERC is now undertaking consultation with the states on establishing contours for transmission reliability regions to cover the entire nation. FERC, News Release, Docket No. RM99-2-000 (Nov. 24, 1998). This is the next step in an on-going process at FERC to assess whether independent regional transmission entities should be established in all areas of the country to facilitate reliability, efficiency, and competition. Alleged deficiencies in the implementation and scope of FERC Orders 888 and 889 have helped prompt this policy review.

⁴⁷ Under traditional FERC transmission tariffs, an additional charge is incurred any time the contract transmission path involves more than one firm's transmission system, thus causing rates to be "pancaked."

market and thereby reduce market concentration in generation and consequently the likelihood of generation market power. A broader geographic market will not necessarily solve all the generation market power problems, but it can provide a major step in that direction.

If it is truly independent in its governance and operations, the ISO also eliminates transmission discrimination incentives by removing control of transmission assets from the hands of firms that own generation facilities. In addition, the ISO may have stronger incentives than traditional vertically integrated utilities to address generation market power in load pockets that arise during periods of transmission congestion.⁴⁸

If Alabama becomes involved in the formation of an ISO, it may wish to consider four danger signs warning of risks to competition in the ISO formation process:⁴⁹ (1) the ISO is too small; (2) there is no plan for generation restructuring; (3) the ISO is not sufficiently independent; and (4) the ISO plan does not effectively deal with transmission congestion.

⁴⁸ One potential difficulty with the nonprofit status of ISOs is the lack of profit incentives to operate efficiently and to make economically appropriate investment decisions regarding expansion of the transmission grid to address transmission bottlenecks. ISO governing bodies may be able to design the employment contracts of ISO managers to provide such incentives.

⁴⁹ FERC issued additional guidelines on formation of ISOs in Order No. 888 and Order No. 889, FERC Stats. & Regs. (CCH) ¶131,594 (Apr. 24, 1996) (Open Access Same-Time Information System and Standards of Conduct).

ISO Warning Sign Number One: The ISO is too small. One disadvantage of an ISO with limited geographic scope is that it may not encompass enough generating firms to mitigate generator market dominance problems.⁵⁰ With very few, if any, exceptions, a single state is too small for an ISO. An ISO that includes only one utility's service territory warrants even closer scrutiny. In contrast, several participants at FERC's April 1998 ISO Policy Conference testified that reliability and competition concerns might lead to consolidation into as few as three ISOs to cover all forty-eight contiguous states.

ISO Warning Sign Number Two: There is no plan for generation restructuring even when there is a potential generation market dominance problem.

As a general proposition, a market power monitoring office within the ISO may not be a good substitute for up-front divestiture of generation capacity if market power is present. Several states, including California, have confronted the generation market

⁵⁰ Another disadvantage may be that it does not provide enough diversity in generation (with respect to number and type of generators) to optimize system reliability. See Section VI *infra*.

competition. As noted earlier, antitrust may not be an effective policy tool for addressing existing market power created under past regulation. Hence, the APSC, other state public utility commissions, and FERC may be in the best position to address this aspect of restructuring as part of the ISO formation process.⁵¹

ISO Warning Sign Number Three: The "I" part of the ISO is missing or weak.

Independence is a keystone of successfully launching competition through an ISO. For competition to develop, current and prospective industry participants need to have trust in the objectivity of the ISO. If, for example, incumbent vertically integrated utilities can veto expansions of the transmission grid, or limit who may use the grid, the ISO's independence is likely to be at risk.⁵²

ISO Warning Sign Number Four: The ISO plan does not effectively deal with transmission congestion.⁵³ Failure to deal effectively with the transmission congestion

⁵¹ The Administration's recent proposals respond to this concern by recommending that Congress give FERC (in consultation with the FTC and DOJ) authority to require divestiture of generation assets by generating firms that have market power in the context of retail competition. "Comprehensive Electricity Competition Plan" (Mar. 26, 1998) <www.hr.doe.gov/electric/plan.htm>.

⁵² See James Baker Jr., Bernard Tennebaum, and Fiona Wolf, Governance and Regulation of Power Pools and System Operators: An International Comparison, 382 World Bank Technical Papers (1997) (a report on international comparisons of ISO governance systems written in part by FERC staff); Alex Henley, Contrasts in Restructuring Wholesale Electric Markets: England/Wales, California, and the PJM, 11 Elect. J. 24 (Aug./Sept. 1998).

⁵³ "Transmission congestion" refers to conditions in which transmission lines are being used to full capacity and additional transmission efforts between a generator and load reduce the efficiency of other transmissions on the transmission grid. Transmission congestion is most likely during peak demand (load) periods.

⁵⁴ A variety of transmission congestion pricing systems have been approved by FERC for use by ISOs, and the APSC may wish to compare the effects of the different systems as more experience is gained. California, for example, opted for a "zonal transmission pricing" approach, albeit with very large zones. The Pennsylvania, [New] Jersey, Maryland (PJM) ISO has chosen to address transmission congestion problems with much more narrowly defined pricing zones. PJM's approach is termed "locational marginal pricing"

⁵⁷ Robert Wilson, PX Activity Rules (Feb. 1997) and Activity Rules for the Power Exchange (Mar. 1997). For a more general discussion of market design considerations, see Robert Wilson, Report to the Competition Bureau of Industry Canada: Efficiency

[T]here is a strong likelihood that a utility will favor its affiliates where these affiliates are providing services in competition with other, non-affiliated entities. . . . [In addition,] there is a strong incentive for regulated utilities or their holding companies to subsidize their competitive activity with revenues or intangible benefits derived from their regulated monopoly businesses. . . . Finally, . . . current regulations . . . are not adequate to prevent or discourage [this] anticompetitive behavior. . . . However, the Commission is aware that efficient competition is fostered by encouraging the participation of many qualified participants, including unregulated affiliates.⁵⁹

The potential benefits to consumers from preventing discriminatory transactions and cross-subsidization between regulated distribution utilities and their unregulated affiliates can take several forms. First, discrimination and cross-subsidization may artificially increase the costs of the regulated utility as costs incurred for the benefit of the affiliate are shifted to the regulated firm. Under a rate-of-return regulatory regime, higher costs will result in increased prices in the regulated market. Second, such conduct may increase costs in unregulated markets by displacing innovative, lower-cost suppliers and entrants with a higher-cost affiliate of the local regulated distribution utility. Third, this displacement also may eliminate or reduce the process and product innovations that the displaced firms would have provided to consumers.

On the other hand, unbundling can impose costs on consumers in the form of lost economies of vertical integration and forgone economies of scale or scope. These lost economies translate into higher costs and higher prices in either the regulated or

⁵⁹ Public Utility Commission of Texas, 23 Tex. Reg. 5294 (May 22, 1998).

unregulated markets. In addition, participation by affiliates may in itself increase competition in relevant markets.

In weighing the trade-offs between preventing discrimination and fostering economies of vertical integration, it is important to keep in mind that these questions arise in a broader context of introducing competition into a very large industry with widespread effects on local economies as well as the national economy. For competition to take hold quickly and effectively in these formerly regulated markets, it may be particularly important to dispel potential entrants' perceptions that the incumbent distribution firms will manipulate rules and mislead regulators to the disadvantage of new competitors.

This perception issue gains urgency to the extent that entry may be less costly when competition is initially being introduced in the electricity industry, when consumers and businesses are likely to be more aware of and interested in new choices. Conversely, entry may be more costly and less likely in the long run if an incumbent retains incentives to increase the risks of entrants into markets served by the incumbent's affiliates. These broader concerns about entry are not as relevant to state regulators when an affiliate is operating in competitive markets that are less closely related to the markets supplied by the regulated incumbent. Accordingly, the need to address (and reduce) the perception of potential discrimination and cross-subsidization may be greatest when competition is just getting underway.

1. Initial Assessment of Vertical Efficiencies

The APSC may wish to assess whether significant existing or prospective economies of vertical integration will be lost if it allows incumbent utilities to establish affiliates to offer unregulated services. Such an assessment could alleviate some uncertainty about the costs and benefits of different policy options. If economies of vertical integration are minimal, divestiture at the outset of regulatory reform may be more appropriate than the proposed behavioral rules. Conversely, if economies of vertical integration are substantial, the APSC may wish to consider whether any type of separation of a utility from its affiliates is likely to yield net benefits. Recent empirical evidence suggests that economies of vertical integration in the electric industry may be material, but that they vary considerably in different circumstances and may be realized through alternative organizational arrangements.⁶⁰ Given this evidence, it seems reasonable to assume initially that vertical integration produces at least modest economies.

2. Limits on Transactions Between Utilities and Their Affiliates

The APSC has questioned whether behavioral rules are sufficient to discourage discrimination in transactions between regulated utilities and their unregulated affiliates. As discussed above, we have significant reservations about the effectiveness of relying exclusively on behavioral rules. If the scale, scope, or vertical integration economies of affiliation are substantial and can be realized even in the presence of functional unbundling, the APSC may wish to strengthen its approach by requiring the

⁶⁰ See John E. Kwoka, Jr., Power Structure: Ownership, Integration, and Competition in the U.S. Electricity Industry (1996).

affiliates to operate independently, on a bid-based, arm's-length basis. For example, the APSC may wish to require that the bulk of regulated utility purchases from unregulated affiliates be restricted to contracts won through an objective bidding process in which a third party evaluates the bids.

A critical element of workable bidding systems is the perceived and actual objectivity of the bid evaluation process. The system must be perceived as objective in

⁶¹ For example, Phoenix, Arizona has implemented a system of competitive bidding in which outside contractors compete against government departments for contracts to provide various city services. Before a city agency can submit a bid, however, the Office of the Comptroller, which is an independent entity, must certify that the bid is realistic. John C. Hilke, Competition in Government-Financed Services 16, 67-68 (1992). The city continues to save substantially through this bidding process. (Communication with Lera Riley, Assistant Public Works Director, City of Phoenix, Oct. 1998.)

⁶² See e.g., Public Utilities Commission of Nevada, Proposed Regulations Governing Affiliates of Distribution Companies, Sec. 22.

Massachusetts, have determined that the market is the best gauge by which to determine the value of generating assets in a stranded cost assessment,⁶³ the APSC may wish to use actual market values, rather than a band of prices, for asset transfers. The arm's-length bid process discussed above is an example of a method to establish actual market values. Application of an arm's-length bid process should help avoid bias both in the one-time sale of generation assets⁶⁴ and in repeated transactions between regulated firms and their unregulated affiliates.

3. Benefits and Costs of Allowing Affiliates to Use the Parent Distribution Firm's Logo⁶⁵

⁶³ Edison Electric Institute, 4 Retail Wheeling & Restructuring Report 65 (March 1998).

⁶⁴ One deficiency in sales of stranded assets may be the role of investment bankers and affiliates in the sale. For example, if the sale is managed by an investment banker who works for the selling utility, a serious principal-agent problem may be created because the residual claimants for the revenue from the sale are the ratepayers, whereas the incentive for the investment banker is to structure a deal that benefits the transacting parties (possibly including a buyer who is the customer of the investment banker in other jurisdictions). If the sale is managed by an investment banker working for the selling utility and an affiliate is the prospective buyer, self-dealing may be an issue. Because ratepayers are the residual claimants in sales of stranded assets, it is likely to be appropriate for the investment banker handling the sale to be retained by state regulators representing consumers (rather than having an investment banker that represents the selling utility).

⁶⁵ We use the term "logo" here to include the logo, name, and other elements used to identify the regulated utility.

⁶⁶ Initial evidence from the Pennsylvania retail competition experiment suggests that consumers may rely on the use of the logo to select an electricity provider. Customers (continued...)

⁶⁶(...continued)

reportedly favored an affiliate that used the logo of its parent distribution utility over an affiliate of the same parent firm that did not use the logo. Energy Daily (June 23, 1998).

⁶⁷ The incremental (marginal) cost of marketing to additional customers is likely to be lower if consumers are already familiar with the logo employed in the marketing effort, since little effort will be required to establish familiarity.

⁶⁸ If the competing firms do not respond with lower prices, the affiliate likely will gain market share. If so, the average price in the market will be lower, even if competitors do

parent utility's logo. For example, an element of a parent firm's reputation might be the credibility of its pledges of high-quality service that are backed by the parent's financial stability as a government-franchised monopoly. If a consumer imputed this same credibility to an affiliate's promises of high-quality service because of its use of the parent's logo, when in fact the affiliate did not have access to the revenues of the monopoly franchise, the consumer could be injured if the affiliate was unable to fulfill its promises in the way the consumer expected. Under such circumstances, the use of the logo by the unregulated affiliate could harm consumers and competition in much the same way as deceptive advertising.

False or deceptive advertising is prohibited under Section 5 of the Federal Trade Commission Act.⁷⁰ In determining whether an advertising representation is deceptive, the FTC generally relies on the principle that if at least a substantial minority of consumers takes a particular message from an advertisement, and if that message is likely to mislead consumers to their detriment, then the advertisement is deceptive.⁷¹

Thus, when considering the effect of an affiliate's use of the parent utility's logo, the FTC would consider consumers' impressions about the relationship between the utility and the affiliate and whether those impressions would be likely to affect purchase decisions. If use of the utility's logo implies to consumers that the

⁷⁰ 15 U.S.C. § 45.

⁷¹ See Federal Trade Commission's Policy Statement on Deception, letter to Hon. John D. Dingell, Chairman, Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, U.S. House of Representatives (Oct. 14, 1983), appended to Cliffdale Associates, 103 F.T.C. 110 (1984).

relationship between the utility and the affiliate is different from what it really is -- an attribute that consumers care about -- such use of the logo could be considered deceptive. If this deception results in harm to consumers or competition, the APSC may wish to restrict or regulate how the affiliate uses the parent's logo.⁷²

(2) Potential Cross-subsidization and the Use of the Parent Utility's Logo:

Although some forms of cross-subsidization may be effectively addressed by transfer pricing rules,⁷³

⁷² Harm to consumers or competition could arise if, for example, the affiliate failed to provide the anticipated level of service reliability, forcing consumers to incur costs of obtaining access to alternative sources of supply.

⁷³ Transfer pricing rules typically forbid transactions between an unregulated affiliate and its regulated parent utility at prices that fall outside of specified limits. Commonly used boundaries include market prices, embedded costs, and book value.

of the type that regulators would traditionally include in the rate base of the regulated firm; and (3) the unregulated affiliate can enhance its own reputation among consumers by using the logo of the regulated parent firm, even if elements of the regulated firm's reputation do not apply to the affiliate. When these factors are present, a regulated incumbent will have a heightened incentive to overinvest in reputation-building because it can expect to incorporate a greater share of these investments into its rate base than if the assets were not shared with the affiliate. Moreover, the affiliate would realize additional profits from its increased sales in the unregulated market. The principal obstacle to deterring this conduct is that it may be extraordinarily difficult to distinguish competitive from anticompetitive levels of investment in reputation-building. Harm to competition and consumers may result from such overinvestment and subsequent cross-subsidization.

Harm to competition may occur because the unregulated affiliate's access to the logo of its regulated parent gives it a cost advantage through potential cross-subsidization that otherwise equally efficient competitors cannot match. The anticompetitive results may include (1) higher-than-necessary average operating (i.e., non-logo-related) costs for the industry and higher prices for consumers due to the continued operation of the affiliate, which can survive with higher-than-necessary costs due to the cross-subsidization; (2) greater market concentration and less competition than would occur absent the cross-subsidization;⁷⁴ and (3) discouragement of potential

⁷⁴ If entry is difficult or delayed, market share gained through cross-subsidization also
(continued...)

⁷⁴(...continued)

may have persistent effects even after the cross-subsidization has been discontinued.

⁷⁵ Although use of a disclaimer may be a remedy worth considering, it may be difficult to develop disclaimers that are simultaneously sufficient to avoid deception and succinct enough to make affiliate use of the regulated parent utility's logo practical.

⁷⁶ Private parties may submit such evidence from privately funded research. The APSC, however, should be wary of testing performed on behalf of special interests, and should take steps to ensure that the results represent useful indications of likely consumer

An alternative means of transferring the rights to use the parent firm's logo is to require that the affiliate (and any other firms granted the right to use the logo⁷⁷) pay the parent for the right to use the logo.⁷⁸ Because the logo is an asset, use of the logo by other firms, including affiliates, represents an asset transfer from the parent firm, and the APSC may wish to treat it like other asset transfers. In order to avoid cross-subsidization in such a transaction, the use of the parent logo must be fairly evaluated.⁷⁹

⁷⁷ In some situations, firms may sell the right to use a logo to independent entities, contingent upon conditions and restrictions placed on use of the logo.

⁷⁸ Payments to the regulated distribution firm for use of its logo could reduce prices for distribution services by substituting payments from an affiliate for what the firm otherwise would be authorized by the APSC to collect through distribution charges.

⁷⁹ The Maine Public Utilities Commission has established rules requiring affiliates to pay the incumbent utility for use of the goodwill reflected in the utility's name. The payment is determined according to how soon the utility succeeds in earning its authorized return on equity. Maine Public Utilities Commission, Docket No. 98-077 (July 7, 1998). The rules provide a three-year initial payment period followed by a reassessment, with up to three additional years of payments if necessary to bring down the value of the goodwill asset to zero. Corporate Goodwill, Public Utilities Fortnightly 16 (Oct. 15, 1998).

⁸⁰ Federal antitrust review may consider the retail effects of electricity mergers, but traditionally antitrust remedies do not focus on alleviating existing (i.e., premerger) market power held by the merging parties.

⁸¹ FERC Order 888, 61 Fed. Reg. at 21555 (May 10, 1996).

⁸² For decades, mergers in the electric industry were permitted under the assumption that rate-of-return regulation would continue indefinitely and eliminate antitrust concerns about increased prices and decreased quality of service caused by increased market power.

⁸³ The Comprehensive Electricity Competition Act (Section 403) proposed by the Department of Energy contains provisions to give FERC authority (in consultation with the Federal Trade Commission and the Antitrust Division of the Department of Justice) to remedy existing generation market power at the retail level if a state requests that FERC exercise this authority. Many state utility commissioners perceive that they lack authority to order structural remedies to address existing generation market power. National Association of Regulatory Utility Commissioners, Executive Dialogue on Market Power, (continued...)

responsibility for review of generation market power (if any) at the retail level. The APSC may wish to focus its analytical resources on these two important situations where it has the primary role in assessing market power and developing appropriate remedies.⁸⁴

VI. Properly Developed and Operated ISOs May Also Help Address Reliability Concerns

Although the issues of competition and reliability are commonly discussed separately, there is a major overlap between the two that relates to the appropriate size of the ISO or other independent regional transmission entity. As discussed above, large

⁸³(...continued)

Minneapolis, Minnesota, July 8-9, 1998. Subsequent to this Executive Dialogue, NARUC passed a resolution urging states that are considering retail competition to obtain authority to remedy existing market power at the retail level. Despite the lack of restructuring authority, some states (e.g., California) have induced divestiture of generation assets by large franchised utilities by requiring such divestiture as a condition for recovery of stranded costs.

⁸⁴ Some states have determined to assess retail market power with the aid of computer simulation models. The APSC may wish to consider this approach as well. Staff of the Utah Public Service Commission released a draft Market Power Report to that state's Electrical Deregulation and Customer Choice Task Force on August 14, 1998. This report contains an extensive section on computer simulation modeling. Computer simulation modeling of retail market power in Colorado was performed for the Colorado Public Utilities Commission and reported in an article entitled Measuring Market Power in a State with a Dominant Supplier: A Case Study, 11 *Elect. J.* 61 (July 1998). Because subtle modeling parameters may have very significant effects on results, the APSC may wish to avoid relying exclusively on incumbent firms to perform this type of analysis.

ISOs can alleviate generation market dominance concerns by broadening the relevant geographic market and by providing unbiased incentives to add transmission capacity to alleviate transmission bottlenecks. Large ISOs can have a similarly salutary effect on reliability difficulties, by increasing the number and diversity of generation and transmission reserves. A large ISO will have incentives to strengthen transmission links throughout its operating area in order to avoid transmission bottlenecks. This, coincidentally, will enhance the ISO's ability to bring reserve capacity to bear from different areas to meet reliability problems in a particular area.

VII. Conclusion

Public Interest and Regulation: In assessing the public interest regarding electric industry regulatory reform, the APSC will be weighing the prospective benefits and

including incentives to mitigate stranded costs (and increase benefits), and by taking steps to avoid strategic use of stranded cost recovery revenues by traditional vertically-integrated electric utilities to block or eliminate entry. If Alabama determines to allow recovery of stranded costs and benefits, and if areas of Alabama have net stranded benefits rather than net stranded costs, the APSC may wish to consider recovering these benefits for electricity customers in these areas in a competitively neutral manner.

Market Structure, Market Power and Reliability: Horizontal market power and transmission discrimination problems are real sources of concern for the APSC as it considers retail competition. Use of the factors set forth in the DOJ/FTC Merger Guidelines, together with computer models, may allow the APSC to draw appropriate

preserving possible economies of vertical integration. Bidding rules and other policies appear to constitute a reasonable initial approach to this trade-off. If such rules are adopted, the APSC may wish to set a date to reevaluate the adequacy of the rules, with a view to moving to full divestiture if the rules have not prevented discrimination or have proven very costly to enforce. In the area of consumer protection, the APSC may wish to adopt rules on advertising by affiliates that are consistent with FTC law on deceptive advertising. Finally, the APSC may wish to maintain the confidentiality of commercially sensitive information on winning bids in order to avoid aiding coordinated interaction between competitors.

We again thank the APSC for inviting comments as part of its wide-ranging inquiry concerning prospective electric industry regulatory reform and restructuring.

Respectfully submitted,

John C. Hilke, Electricity Project Coordinator
Bureau of Economics
Federal Trade Commission
600 Pennsylvania Ave., N.W.
Washington, D.C. 20580

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