

## The American Antitrust Institute

November 18, 2005

Magalie Roman Salas, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, D.C. 20426

### **Re:** Electric Energy Market Competition Task Force (Docket No. AD05-17-000)

Dear Secretary Salas:

Please find attached for e-filing comments of the American Antitrust Institute (AAI) in the above-referenced proceeding.

Very truly yours,

/s/ filed electronically

Diana L. Moss Vice-President and Senior Fellow

Enclosure

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#### UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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Electric Energy	
Market Competition	
Task Force	

**Docket No. AD05-17-000** 

#### COMMENTS OF THE AMERICAN ANTITRUST INSTITUTE

#### **Introduction**

The American Antitrust Institute (AAI) is an independent, Washington D.C.based non-profit education, research, and advocacy organization. The AAI's mission is to increase the role of competition, assure that competition works in the interests of consumers, and challenge abuses of concentrated economic power in the American and world economy.<sup>1</sup> The AAI speaks on behalf of the public interest in a wide range of matters involving competition policy, antirust enforcement, regulatory policy, and consumer protection. This representation is independent of any particular private interest.

Section 1815 of the Energy Policy Act of 2005 requires the Electric Energy Market Competition Task Force to conduct a study of competition in wholesale and retail markets for electric energy in the United States. The activities of the Task Force are particularly important. Comments filed in response to this Notice will be assimilated and analyzed by the Task Force and, ultimately, passed on to Congress. Any action taken in response will affect competition and consumers. In pursing its public interest mission, the AAI respectfully submits comments in this proceeding.

<sup>&</sup>lt;sup>1</sup> More information on the AAI is available at http://www.antitrustinstitute.org/about.cfm.

A series of regulatory initiatives and landmark decisions laid the early foundation for restructuring in the U.S. electric power industry. These initiatives go as far back as the Public Utility Regulatory Policy Act of 1978, and include the Energy Policy Act of 1992, early market-based rates for wholesale power, and various transmission pricing and organization initiatives. More active restructuring began in 1996 with Order Nos. 888 and 889. Those initiatives recognized that little additional progress on promoting competition in wholesale markets could be realized without addressing the transmission access problem.

Ten years have elapsed since open access was implemented--enough time for key restructuring issues to crystallize. Many of these are implicated in the Overview Questions posed by the Task Force. In the interest of focusing attention on the cornerstone economic, legal, and policy questions surrounding competition policy in modern electricity markets, the AAI will respond to Overview Questions 4 and 5 set forth in the Notice. The AAI appreciates the opportunity to share these views with the Task Force.

#### **Question 5**

# In what significant ways do wholesale and retail electricity markets differ from other energy or commodity markets? What implications do their differences have for public policy?

Electricity is a unique commodity. A number of events have punctuated this reality, including the California energy crisis and the cascading electrical outage of August 2003. Electricity differs in many important ways from goods that are traded in markets that are relatively free from government intervention. Historically, intervention has taken the form of price, profit, and entry regulation. In the modern era of restructuring electricity markets, intervention is more likely to take the form of oversight of market functions and monitoring various forms of conduct. Major differences between electricity and other commodity markets are a starting point for analyzing the transition to more competitive markets, the most important of which are:

- High social costs of shortage
- Inelasticity of demand and supply
- Price volatility

As discussed below, each of these factors has implications for restructuring policy.

#### High Costs of Shortage

Electricity is a nonstorable commodity, the demand for which must be continuously matched with supply to ensure reliability. Avoiding the failure of an electric system thus requires that inflows and outflows always be in balance. This has two ramifications. One is that inventories play no role in smoothing capacity imbalances (and accompanying price dynamics) as they do in traditional storable commodity markets. It also means that supply failures or interruptions affect all suppliers and consumers on the grid, not just the entities with which the problem originated. Similar to how delays at one airport affect flights entering or leaving from other airports, the "blackout" externality endemic to electricity stems primarily from the interconnected nature of supply and demand centers on the grid.<sup>2</sup>

The high private and social costs of electricity outages have multiple implications, many of which reflect potential conflicts between the current restructuring approach and goals for the developments of workably competitive wholesale markets. First, much of

<sup>&</sup>lt;sup>2</sup> See Diana Moss, "Reliability or Competition: What the Coming Policy Shift Means for Restructuring," *Electricity Journal* 17(2), March 2004, pp. 11-28.

the redundant infrastructure that historically ensured reliability has been reduced under the cost-minimization pressures of a more competitive regime. Open access has also altered usage of the grid so that different types and locations of reliability infrastructure may be needed to effectively balance supply and demand. Second, in the past, reliability was dictated largely by high mandated reserve requirements. Now there is more uncertainty about what signals or criteria should justify reliability investments and who should pay for them. Third, the competitively sensitive nature of planning information in a market-driven environment has discouraged independent generation developers from sharing information on planned capacity with transmission owners. There is an increasing popular view that widespread vertical separation of generation and transmission may sacrifice economies of coordination that ensured a high degree of reliability.

Failure to recognize and reconcile the fundamental differences in incentives under the old and new regimes increases the chance of additional costly outages. As a result, the AAI urges the Task Force to focus on approaches to resolving the need for reliable electricity supply and countervailing incentives created by a more competitive regime. This will undoubtedly require a hard look into: (1) what aspects of competition and consumer protection should be promoted (and which should be downplayed) and (2) the equity issues associated with implementing reliability-oriented restructuring policies.

#### **Inelasticity of Demand and Supply**

Demand for electricity at most consumer levels is inelastic. Where consumers have few or no alterative energy sources (e.g., residential or commercial), consumption is particularly insensitive to changes in price. This is important because the more inelastic is demand, the higher will be a price increase if a monopoly seller withholds output.

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Improving the ability of consumers to respond to periodic episodes of high wholesale prices would undermine such exercise of market power. This is possible, however, only when real-time metering and variable-rate programs are available to consumers.<sup>3</sup> Such pricing systems shift consumption from peak to off-peak periods when demand is likely to be more price-responsive, reducing the potential gains to sellers from exercising market power.

The limited responsiveness of electricity consumption to changes in price has important implications for the development of competition in wholesale markets. For example, disciplining the exercise of market power with demand-side tools means designing auctions that enable consumers (e.g., wholesale loads) to bid in their demand schedules. Without demand-side bidding supply dynamics, in effect, operate on completely inelastic demand, producing higher price increases if output is withheld. At the end-user level, harnessing the power of demand to discipline prices is possible only through a concerted effort to promote demand-side response such as real-time pricing. The AAI therefore encourages the Task Force to investigate and prioritize approaches for improving demand-side response.

Elasticity of supply is typically very low at or near full capacity levels.<sup>4</sup> Limited responsiveness of supply to changes in price also can exacerbate the effects physical withholding. For example, at high levels of demand, substantially higher-cost resources

<sup>&</sup>lt;sup>3</sup> For additional discussion, see Federal Trade Commission Staff, Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform: Focus on Retail Competition, September 2001.

<sup>&</sup>lt;sup>4</sup> For basic discussion see, for example, Gregory J. Werden, "Identifying Market Power in Electric Generation," *Public Utilities Fortnightly*, February 15, 1996, 16-21 and Chris Decker and Tim Keyworth, "Competition Law and Commodity Markets: The Case of Wholesale Electricity," *Economic Affairs* 22(4), 2002, 32-39.

must be brought into service if marginal or inframarginal resources are withheld.<sup>5</sup> This can result in significant price increases for relatively small amounts of capacity withheld.

One policy implication of inelastic supply is that poorly designed electricity markets can actually encourage withholding. Many markets feature single-price auctions, which mean that all sellers receive the clearing price. All sellers therefore benefit from supra-competitive prices that result from withholding, even if they did not all engage in withholding.<sup>6</sup> Another implication of inelastic electricity supply is that incentives to withhold are not necessarily dependent on large market shares.<sup>7</sup> "Incentive" is present when a withholding strategy, on net, is profitable. In other words, the profit lost on capacity withheld must be more than compensated for by profits earned on sales at supra-competitive prices. Thus, even if the seller has a small amount of low-cost, inframarginal capacity, withholding may still be profitable because the seller collects a high price on each inframarginal unit of output it sells.

The foregoing result is somewhat at odds with a traditional focus on the relationship between large market shares (and concentration) and a greater potential for

<sup>&</sup>lt;sup>5</sup> Marginal generating resources have marginal costs at or near the market-clearing price, inframarginal resources have costs less than the market-clearing price, and extramarginal resources have costs above the market-clearing price. See, for example, Richard Green, "Did English Generators Play Cournot?" University of Cambridge, Department of Applied Economics, Working Paper CWPE 0425, April 2004.

<sup>&</sup>lt;sup>6</sup> Note that the UK transitioned from uniform to pay-as-bid pricing in the early 2000s. See additionally, Alfred E. Kahn, Robert H. Porter, and Richard D. Tabors, *Uniform Pricing or Pay-as-Bid Pricing: A Dilemma for California and Beyond*, Blue Ribbon Panel Report, study commissioned by the California Power Exchange, January 23, 2001, p. 2; James B. Bushnell, Erin T. Mansur, and Celeste Saravia, "Market Structure and Competition: A Cross-Market Analysis of U.S. Electricity Deregulation," University of California Energy Institute, Working Paper CSEM WP 126, March 2004; and Peter Cramton, "Electricity Market Design: The Good, the Bad, and the Ugly," *Proceedings of the Hawaii International Conference on System Sciences*, January 2003.

<sup>&</sup>lt;sup>7</sup> For more discussion, see Severin Borenstein, James B. Bushnell, and Christopher R. Knittel, "Market Power in Electricity Markets: Beyond Concentration Measures," *Energy Journal* 20(4), 1999, 65-88 and Aleksandr Rudkevich, Max Duckworth, and Richard Rosen, "Modeling Electricity Pricing in a Deregulated Generation Industry: The Potential for Oligopoly Pricing in a Poolco," *Energy Journal* 19(3), 1998, 19-49.

anticompetitive harm. It follows, then, that accepted screening tools for market power may have limited use in electricity merger review, prosecution of anticompetitive conduct, and evaluating requests for market-based pricing authority. The AAI therefore urges the Task Force to consider the relationships between market design issues and withholding and whether electricity—much like health care or intellectual property should have special (e.g., more focused or tailored) guidelines than the standard antitrust guidelines for evaluating competitive concerns.<sup>8</sup>

#### **Price Volatility**

Minimal price volatility and price predictability were givens in the world of costof-service regulation. But price volatility has a very different flavor in modern competitive wholesale markets. For example, in a market environment, prices are determined by the dynamics of supply and demand, and shocks from either side can create large and potentially disruptive swings. The signaling effects of price volatility ideally induce efficient consumer choices and seller investment decisions in the long run. But if market impediments impair this process, such adjustments may be sub-optimal or not occur at all.

Price volatility also contributes to the exercise of market power. Electricity demand varies significantly over a typical day and year, producing a potentially large number of time-differentiated product markets. There may be significant incentives to exercise market power during peak periods when transmission constraints bind and generating resources are scarce, but little or none during off-peak periods when neither

<sup>&</sup>lt;sup>8</sup> See Michael O. Wise, "Overview: Deregulation and Antitrust in the Electric Power Industry," *Antitrust Law Journal* 64(2), 1996, 267-301. Wise notes that antitrust attempted to "ease transitional anxieties" in industries such as health care and intellectual property through special guidelines.

condition holds. Market power, therefore, can be exercised for fleeting periods but with potentially significant adverse effects on consumers. For the foregoing reasons, the AAI urges the Task Force to consider the management of price volatility in electricity markets an important public policy issue and to recommend steps (e.g., demand-side response) to minimize the adverse effects of volatility on market participants.

#### **Question 4**

# What are major public policy concerns that the Task Force should examine in its review of competition in wholesale and retail electricity markets?

The initially rosy view of restructuring that was driven by the first set of restructuring initiatives and industry responses to those initiatives (e.g., divestitures, mergers, and retail access programs) passed quickly. The Midwest price spikes in the summers of 1998 and 1999 made it clear that price volatility was likely to be a permanent feature of restructuring markets. The California electricity market meltdown emphasized the practical difficulties of restructuring and identified the explosive nexus between electricity's unique commodity characteristics, poor market design, and various impediments to market development. Retail access programs in a number of states were retracted, slowed down, or fizzled out for lack of consumer interest. And ongoing discrimination in the provision of transmission service highlighted the limitations of open access.

This list of "terribles" punctuates the reality that restructuring the electricity industry raises a myriad of complex and fluid economic, engineering, legal, and institutional problems. For example, different stakeholders have distinct and often

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conflicting business models and concepts of equity.<sup>9</sup> More attention is now focused on the role of transactions costs and information asymmetries under vertical unbundling and on the aggregate costs and benefits of restructuring to date.<sup>10</sup>

It is no surprise, therefore, that there is a growing lack of consensus among different stakeholder groups on core policy issues where controversy gains the most traction. These issues include the role of RTOs, transmission pricing, and market power. Dissent among industry stakeholders, however, can play a positive role by signaling the problems that are most in need of resolution and helping decision makers to "triage" the policy process. The AAI suggests that the Task Force to focus on four of the most important of these problems:

- Defining a realistic model of restructuring
- Articulating the roles of regulation and antitrust
- Assessing and remedying market power
- Formulating a coherent FERC merger policy

Suggestions for dealing with each of these issues are discussed in the following sections.

#### **Defining a Realistic Model of Restructuring**

Highly publicized and traumatic events such as market failures and outages have raised some doubt about the efficacy of achieving competitive markets. Accordingly, the industry moved (1) away from the early laissez-faire-oriented model of restructuring and toward a model of managed competition and (2) ultimately to the realization that even

<sup>&</sup>lt;sup>9</sup> For example, unintegrated generators, vertically integrated utilities, and for-profit transmission companies, to name a few.

<sup>&</sup>lt;sup>10</sup> Robert J. Michaels, "Vertical Integration: The Economics That Electricity Forgot," *The Electricity Journal* 17(10), December 2004, 11-23.

managed competition would have to be tempered by reliability considerations. This restructuring paradigm shift thus guaranteed a significant, continuing, and largely untested role for regulators. It also implicates costs that would not exist in purely market-driven environment and leaves the door open for forms of market conduct that would be untenable under more competitive market conditions.<sup>11</sup>

Perhaps the best context in which to view these, and other, characteristics of today's electricity industry is a "mixed" model of competition and regulation. If this is an accurate model, then to move restructuring forward, policymakers must find ways to promote competition, consumer protection, and fairness within its confines. This calculus will be determined by a number of factors, foremost of which are competitive conditions and firm organization in different regional U.S. wholesale electricity markets. For example, in markets that are not conducive to competitive outcomes, more regulatory oversight will be needed. This means markets that are transmission-constrained, with concentrated generation ownership, and where there is evidence of withholding and/or exclusionary conduct. In markets that are "in between," determining the appropriate balance of regulation and competition should be a high public policy priority.

Much has been accomplished in restructuring U.S. electricity markets thus far. But when dissatisfaction and instability surrounds any current approach, there will always be pressure to revert to the "old" model. The AAI believes that improving the existing model (as imperfect as it is) would provide greater benefits than returning to a model of regulated natural monopoly. Policy should make the most of progress to date and

<sup>&</sup>lt;sup>11</sup> John Kwoka, "Vertical Economies in Electric Power: Evidence on Integration and its Alternatives," *International Journal of Industrial Organization* 20(5), May 2002, 653-671.

acknowledge the realities of the mixed model on which restructuring operates. The AAI thus urges the Task Force to consider formulating criteria to assess the competitiveness of regional U.S. wholesale electricity markets and other identify relevant features such as state level involvement in markets, availability of demand-responsive, reliability considerations, and the status of RTO development that affect market functioning and outcomes. This would lay the groundwork for assessing the extent to which regulatory oversight or intervention in certain markets is warranted and provide more certainty to stakeholders.

#### **Articulating the Roles of Regulation and Antitrust**

Like natural gas, telecommunications, and transportation, electricity has undergone fundamental transformation as a result of a transition to lighter-handed regulation and market-driven mechanisms. As federal and state regulators increasingly rely on markets to achieve the goals of restructuring, the formerly limited role of antitrust in the electricity industry should change. Antitrust can (and should) be seen as harmoniously coexisting with regulation as a complementary policy instrument for remedying market distortions.

But the role of antitrust in the transitional phase of electricity restructuring has been under-recognized.<sup>12</sup> Except for merger review, courts have generally not recognized the benefits of concurrent antitrust scrutiny and regulatory oversight, in part because of concerns over potential conflicts between the two regimes. This has been reflected in a

<sup>&</sup>lt;sup>12</sup> See Albert A. Foer and Diana L. Moss, "Electricity in Transition: Implications for Regulation and Antitrust," *Energy L. J.* 24(1), 2003, 89-105; Philip J. Weiser, "The Relationship of Antitrust and Regulation In A Deregulatory Era," *Antitrust Bulletin* 50, 2005, forthcoming; and Joel I. Klein, "Making the Transition from Regulation to Competition: Thinking About Merger Policy During the Process of Electric Power Restructuring," Address by the Assistant Attorney General, Antitrust Division, U.S. Department of Justice, Federal Energy Regulatory Commission Distinguished Speaker Series, Washington, D.C. (January 21, 1998).

relatively passive stance, for example, in alleging liability for exclusionary conduct such as frustrating access to transmission.<sup>13</sup>

The lengthy restructuring transition in electricity raises some thorny issues. Chief among them is whether antitrust should be put "on hold" until markets are workably competitive or whether some mixture of regulation and antitrust would facilitate competition. Support for the latter comes from a number of factors. For example, underutilization of antitrust leaves FERC and the states to shoulder the heavy burden of detecting, deterring, and remedying anticompetitive conduct. Dealing with such issues with a cumbersome regulatory process that are more effectively dealt with by antitrust can chill pro-competitive behavior or even extend the transitional process.

In light of the foregoing, the AAI believes that antitrust enforcement has an important role to play in the electricity industry, in appropriate cases. The choice of cases depends on the factual circumstances and the regulatory context. For example, antitrust enforcement is well suited for disputes requiring an adjudicatory resolution of a competitive issue. Regulatory agencies, which operate in a consultative mode, are better suited to rulemaking and operational oversight. Antitrust also has a comparative advantage in maintaining competition in markets, but regulation has a comparative advantage in promoting initiatives that will eliminate monopolies or oligopolies so that a market can become competitive. Similarly, while antitrust utilizes a wider range of remedies such as divesture and other structural fixes, regulatory agencies are well-equipped to administer continuing interventions.

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<sup>&</sup>lt;sup>13</sup> After *Otter Tail*, there were few Section 2 claims in electricity.

The AAI therefore suggests that the Task Force report would provide an ideal venue in which to articulate the benefits of antitrust and regulation as complementary mechanisms in the restructuring process and to suggest criteria for how their respective roles should be determined.

#### Assessing and Remedying Market Power

Market power remains the most troubling issue surrounding restructuring in the electricity industry.<sup>14</sup> This includes well-recognized forms of anticompetitive or anticonsumer conduct (e.g., withholding and excluding competitors) and newer mechanisms for exercising market power that have evolved with new market institutions (e.g., withholding or manipulating transmission rights).<sup>15</sup> The AAI believes that persistent competitive problems in the industry results, in part, from an ill-defined role for antitrust and the corresponding absence of structural remedies favored by antitrust enforcement.

It is well-known, however, that the antitrust laws cannot address all forms of market power. For example, the antitrust laws were not intended to police unilateral withholding, as articulated by Donald Turner in 1962:

...to hold unlawful the charging of a monopoly price by a monopolist, or the maintaining of noncompetitive prices by oligopolists, would be to invoke a purely public-utility interpretation of the Sherman Act. . .Congress did not intend the

<sup>&</sup>lt;sup>14</sup> For a comprehensive survey of market power and electricity, see Diana L. Moss "Market Power and Electricity: Current Issues for Restructuring Markets (A Survey)," American Antitrust Institute Working Paper #05-01, forthcoming in *Environmental & Energy Law & Policy Journal*. Online, available http://www.antitrustinstitute.org/recent2/381.pdf.

<sup>&</sup>lt;sup>15</sup> Failure to release unused physical rights effectively takes transmission capacity off the market. Financial rights cannot be withheld but could potentially be used to affect the outcomes of the generation scheduling process, potentially with the effect of foreclosing markets. See James B. Bushnell, "Transmission Rights and Market Power," *The Electricity Journal* 12(8), October 1999, 77-85 and Paul L. Joskow and Jean Tirole, "Transmission Rights and Market Power on Electric Power Networks." *RAND Journal of Economics* 31(3), Autumn 2000, 450-87.

courts to act "much like public-utility commissions in order to cure the ill effects of non-competitive oligopoly pricing."<sup>16</sup>

This leaves FERC and the states to assume much of the enforcement burden for unilateral withholding. But that role is complicated by two major factors. One is application of the Filed Rate Doctrine to market based rates that may prevent claims for damages in cases where prices are anticompetitive. Another is that in cases of unilateral withholding, market participants have no incentive to inform on their rivals (as with exclusionary conduct) since all sellers benefit from supra-competitive prices. The business of policing market power is thus left largely to non-market participants, which has encouraged a large and highly-specialized market oversight infrastructure devoted to behavioral rules and complex market power monitoring and mitigation schemes.<sup>17</sup>

Indeed, much research has been devoted to identifying and measuring market power, largely in response to the dramatic and highly publicized price spikes in California and evidence of withholding in England/Wales and other European countries.<sup>18</sup> Methodological approaches involve a number of different techniques, but most studies conclude that generators in various restructuring or liberalized electricity

<sup>&</sup>lt;sup>16</sup> Donald F. Turner, "The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusal to Deal," *Harv. L. Review* 75, 1962, 669.

<sup>&</sup>lt;sup>17</sup> See, for example, David B. Raskin, "The New Antitrust Regulators?" *The Electricity Journal* 11(3), April 1998, pp. 15-25 and Reinier Lock, "Surveillance of Competitive Electricity Markets: A New Paradigm in Antitrust Regulation?" *The Electricity Journal* 11(20, March 1998, pp. 17-27.

<sup>&</sup>lt;sup>18</sup> See, for example, Catherine D. Wolfram, "Strategic Bidding in a Multiunit Auction: An Empirical Analysis of Bids to Supply Electricity in England and Wales," *RAND Journal of Economics* 29(4), Winter 1998, 703-25; Frank A. Wolak and Robert H. Patrick, "The Impact of Market Rules and Market Structure on the Price Determination Process in the England and Wales Electricity Market," NBER Working Paper Series 8248, April 2001; Severin Borenstein, James. B. Bushnell, and Frank Wolak, "Measuring Inefficiencies in California's Restructured Wholesale Market, *American Economic Review* 92(5), December 2002, pp. 1376-1405; Scott M. Harvey and William W. Hogan, "Identifying the Exercise of Market Power in California," Cambridge, MA: Center for Business and Government, Harvard University, December 2001; and Paul L. Joskow and Edward Kahn, "A Quantitative Analysis of Pricing Behavior in California's Wholesale Electricity Market During Summer 2000," *Energy Journal* 23(4), 2002, 1-35.

markets have exercised market power, either a little or a lot, and for extended or brief periods of time.<sup>19</sup> Identifying and measuring market power raises a host of empirical and policy issues.<sup>20</sup> Most important are the latter, which might ask whether restructuring policy is well-served by such a focus.

One argument *for* measuring the degree to which prices are above competitive levels is that it indicates how bad market power problems are, thus providing some indication of whether enforcement is warranted. Arguably, this view places more emphasis on ongoing monitoring of firm conduct in markets. Taken to an extreme, it leads to a mechanistic approach to constraining firm conduct (e.g., through behavioral rules) and mitigating whatever market power is discovered. The problem with this approach is that risks the misidentification of market power and chilling of procompetitive behavior by choking off entry that occurs in response to legitimately higher prices (e.g., as a result of scarcity).

The opposing camp would argue that an excessive focus on measuring market power really misses the problem. Rather, what is most important to the inquiry is whether a seller or sellers have the power to impose and maintain a price increase, what conduct enabled the firm(s) to exercise its market power, and the underlying structural market conditions that are conducive to allowing it to occur.<sup>21</sup> This approach would favor the use

<sup>&</sup>lt;sup>19</sup> These include: (1) comparing actual prices to "competitive" benchmark obtain with simulation models; (2) using econometric techniques to evaluate price movements as a function of various explanatory variables, including proxies for withholding; and (3) looking at the relationship of prices to marginal costs.

<sup>&</sup>lt;sup>20</sup> See, for example, Timothy J. Brennan, "Mismeasuring Electricity Market Power," *Regulation*, Spring 2003, 60-65 and Nguyen T. Quan and Robert J. Michaels, "Games or Opportunities: Bidding in the California Markets," *The Electricity Journal* 14(1), January/February 2001, 99-108.

<sup>&</sup>lt;sup>21</sup> Antitrust inquiry focuses on market power as the "the power to control prices or exclude competition." United States v. E.I. du Pont Nemours & Co., 351 U.S. 377 (1956). See also Harry First, "Regulated Deregulation: The New York Experience in Electric Utility Deregulation," *Loyola University-Chicago Law* 

of structural remedies to correct for excessive market concentration and single firm dominance.

The AAI urges the Task Force to consider the implications of what has become a regulatory focus on behavioral rules, monitoring, and mitigation as the primary vehicles to address market power. Extensive application of this approach potentially imposes large costs on stakeholders, government authorities, and ultimately on consumers. This is revealed by the high costs of RTOs that--while originally intended to operate regional transmission systems--have subsequently expanded into market administration and complex systems of monitoring and mitigation.

Structural remedies are more likely to create market conditions that will promote competitive outcomes without cumbersome and costly monitoring and mitigation. They also reduce pressure on market design as the first line of defense for remedying the exercise of market power.<sup>22</sup> Market designs that flow from structurally sound markets are necessarily less cumbersome, less prone to gaming, administratively easier to implement, and have less focus on market monitoring. At the same time, not all structural remedies are accessible or appropriate.<sup>23</sup> Under the mixed model, certain markets (e.g., load

*Journal* 33, Summer 2002, 927 and Lewis J. Perl, "Measuring Market Power in Electric Generation," *Antitrust Law Journal* 64(2), 1996, 311-321. The Staff of the Bureau of Economics at the Federal Trade Commission has repeatedly made the case that structural remedies were easier to enforce and more likely to have long-lasting effects. See "Comments of the Staff of the Bureau of Economics of the Federal Trade Commission, In the Matter of Inquiry Concerning Commission's Merger Policy Under the Federal Power Act," Docket No. RM96-6-000.

<sup>&</sup>lt;sup>22</sup> See, for example, William W. Hogan, "Electricity Market Restructuring: Reforms of Reforms," *Journal of Regulatory Economics* 21(1), 2002, 103-132 and David Newbery, "Electricity Liberisation in Britain: The Quest for a Satisfactory Wholesale Market Design," University of Cambridge, Department of Applied Economics, Working Paper 0469, 2002.

<sup>&</sup>lt;sup>23</sup> Divestiture in the British experience may have been more successful than in the U.S. See David M. Newbery, "Mitigating Market Power in Electricity Networks," University Of Cambridge, Department of Applied Economics, Cambridge Working Paper, May 18, 2002.

pockets) will always be subject to regulatory oversight. And enforcers must answer the often-difficult questions of what to divest, how much to divest, to whom, and how long the divestee must stay out of prohibited markets.

The AAI thus suggests that remedies should be selected on the basis of market characteristics and other relevant factors and that the Task Force attempt to identify criteria for determining when behavioral versus structural approaches are the most applicable.

#### Formulating a Coherent FERC Merger Policy

The mid-1990s through the early 2000s was a period of intense merger activity in the U.S. electricity industry. This wave of M&A affords the Task Force the unique opportunity to explore numerous policy issues surrounding competition in electricity markets. Most important among these are the procedural and analytical standards used in merger review and the choice of remedies for problematic cases. These issues are particularly important because they are approached very differently by FERC and the antitrust agencies.

For example, FERC relies heavily on the merging parties' analysis of their *own* merger when rendering its decision while the antitrust agencies perform an independent analysis based on a detailed review of confidential data. Applicant-filed analysis raises a number of important questions. It calls into question the objectivity of the analysis-- something that resource-constrained FERC staff and intervenors cannot adequately police. And while FERC has set forth analytical standards in its 1996 *Merger Policy* 

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*Statement (MPS)*, those standards are broad and subjective enough to introduce a good deal of variation in how key data, methodological, and modeling issues are handled.<sup>24</sup>

For example, merger review at FERC revolves around structural market analysis, i.e., assessing market shares and concentration in relevant product and geographic markets. Market definition is a critical part of merger analysis in electricity. The volatility of electricity demand makes for numerous time-differentiated product markets. Transmission constraints often produce very small, concentrated markets, so measuring and allocation transmission capacity is defining geographic markets is often a concern. Under the current system, defining electricity markets therefore requires complex (e.g., transportation) models, significant quantities of data, and sensitivity or scenario analysis to explore outcomes under different assumptions about key parameters.

A relatively simple analysis of applicant-performed FERC merger analyses over the period 1997 to 2002 shows a significant degree of variation in market concentration results in a number of Midwestern markets.<sup>25</sup> There are numerous possible explanations for this inconsistency. One is rapidly changing market conditions during an intensive period of M&A. Another is the development of multiple data sources over the period of restructuring. Different approaches to calculating transmission availability, modeling transmission constraints, and delineating product markets can also produce different results across cases.

<sup>&</sup>lt;sup>24</sup> Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act: Policy Statement, Order No. 592, 61 FR 68,595, December 30 1996.

<sup>&</sup>lt;sup>25</sup> For more discussion, see Diana L. Moss, Electricity Merger, Economic Analysis, and Consistency," American Antitrust Institute Working Paper #04-02. Online. Available http://www.antitrustinstitute.org/recent2/348.cfm.

Regardless of the reason, consistency in merger analysis is important because, among other things, it provides policy makers and outside observers with a metric for accurately assessing structural changes in transitioning markets. This takes on even more significance in light of larger and potentially more damaging mergers that are currently under review (e.g., Exelon/PSEG). For these reasons, the AAI suggests to the Task Force that improving the FERC merger review process is a public policy "imperative." One alternative to the current approach is for FERC to develop or adopt some form of standardized structural or simulation model.<sup>26</sup> The agency could then perform in-house analysis as a check on what merger applicants provide using their own models or, in the alternative, require that the model be used by all merger applicants.

#### **Summary**

In the foregoing comments, the AAI urges the Task Force to consider a number of

suggestions, including:

- 1. Devise approaches to reconciling the tension between a demonstrated need for reliable electricity supply and countervailing incentives created by a more competitive wholesale market regime.
- 2. Investigate: (1) approaches for improving demand-side response, (2) relationships between market design issues and withholding, and (3) whether competitive analysis for electricity should have special (e.g., more focused or tailored) guidelines that are different from standard antitrust guidelines for evaluating competitive concerns.

<sup>&</sup>lt;sup>26</sup> Simulation models can be used to directly estimate outcomes of post-merger price increases under different assumptions about rivals' behavior. But like structural models, simulation models can be controversial. See S. M. Harvey and W. W. Hogan, "Market Power and Market Simulations," July 16, 2002, available at <a href="http://www.kgs.home/harvard/edu~whogan.cbg.Ksg/H-">http://www.kgs.home/harvard/edu~whogan.cbg.Ksg/H-</a>

H\_Market\_Power&Simulations\_071602.pdf>; D. L. Rubinfeld and R. J. Epstein, "Merger Simulation: A Simplified Approach with New Applications," University of California, Berkeley, Competition Policy Center Working Paper #CPC01'026 (2001). The FTC employed simulation modeling in *PacifiCorp/Peabody* where the effects of a raising rivals' costs strategy (by the merged utility and coal supplier) were estimated. See Federal Trade Commission, "Analysis of Proposed Consent Order to Aid Public Comment." See also M. W. Frankena and J. R. Morris, "Competition Simulation Models Enter the World of Energy Litigation," *Power* 3, Winter 1998.

- 3. Consider the management of price volatility in electricity markets an important public policy issue and recommend steps that will minimize its adverse effects on consumers.
- 4. Formulate criteria for assessing the competitiveness of regional U.S. wholesale electricity markets and identify other relevant features that affect market functioning and outcomes.
- 5. Introduce the issue of the appropriate roles of regulation and antitrust into the policy process and suggest criteria for how those roles should be determined.
- 6. Consider the implications of a regulatory focus on behavioral rules, monitoring, and mitigation as the primary vehicles to address market power and identify specific criteria for determining when behavioral versus structural remedies for market power are the most applicable.
- 7. Suggest that improving the FERC merger review process is a public policy "imperative," to be addressed primarily through the development or adoption of a standardized structural or simulation merger model.

Respectfully submitted,

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November 18, 2005

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