UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

**Before the Federal Energy Regulatory Commission**
**18 CFR Part 33, Revised Filing Requirements**

## Docket No. RM98-4-000

**Comment of the Staff of the**
**Bureau of Economics**
**of the Federal Trade Commission(1)**

**September 11, 1998**

## I. Introduction and Summary

The staff of the Bureau of Economics of the Federal Trade Commission (FTC) appreciates this opportunity to provide its views to the Federal Energy Regulatory Commission (FERC) concerning FERC's Revised Filing Requirements for merger applicants in the electric industry.(2)

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 issues at both the federal and state levels.(3) Moreover, the FTC has reviewed proposed mergers between electric or gas utility companies and non-utility companies.

The proposed Revised Filing Requirements present a wide variety of issues related to assessing the likely competitive effects of mergers in electricity markets. FERC established the existing filing requirements for mergers simultaneously with its formal acceptance of the analytical framework of the Horizontal Merger Guidelines developed by the Department of Justice and the Federal Trade Commission.(4) Consequently, this proceeding represents the first opportunity for FERC (1) to revisit its merger clearance process since adopting the analytical framework of the Horizontal Merger Guidelines, and (2) to consider new developments in merger analysis techniques in the electric industry.

The primary theme of our comment is that an analysis of market share information is often the ramp that leads antitrust agencies to a more sophisticated merger analysis. In light of this, FERC, where appropriate, may wish to expand its merger analysis beyond its current strong emphasis on market share information. Such an expansion has implications both for the information FERC collects and for the analysis it conducts. As part of an expanded analysis, computer simulation modeling may be a particularly promising development that may make it more feasible for FERC to consider alternative scenarios about future technical, economic, and regulatory conditions in its electricity industry merger reviews. We recognize that expanding FERC's merger analysis may entail significant costs to the agency, to the merging parties, and to interested third parties. Such costs, however, may be a necessary prerequisite to a complete and more accurate assessment of the likely competitive effects of proposed mergers.

## II. Expanded Data Requirements for Merger Analysis

Merger analysis under the Horizontal Merger Guidelines is by its nature an information-intensive task once a preliminary analysis reveals a potential for anticompetitive effects. Many important questions about the competitive effects of mergers are best answered with documents, interviews, and data from many sources.(5) The evolution of our Horizontal Merger Guidelines reflects an expanded consideration of facts and approaches. FERC may be better able to protect the public interest as it reviews proposed mergers in the rapidly changing electric industry by revising its information-gathering process to more closely match the information requirements of the Horizontal Merger Guidelines and to improve understanding of vertical competition issues.

To analyze prospective competitive effects of a proposed merger beyond reviewing market share statistics submitted by the merging parties, as well as to assure the accuracy of market share statistics, we have found various sources of data to be important in our merger investigations. Although only some of these sources are likely to be relevant in any individual investigation, FERC may wish to obtain each where appropriate and cost- effective. Sources used in our merger investigations often include, for example, the following:

- internal documents of the merging parties (including, for example, planning and marketing documents; merger assessments; evaluations of current and projected technology; cost, quality, and reliability comparisons of firms and their individual production facilities; and joint venture documentation);
- third-party documents, including documents from industry trade associations;
- depositions of party and third-party executives and consultants;
- history of previous antitrust cases (including collusion cases involving the same companies or the same industry);
- financial analysts' reports;
- employee notes concerning contacts with competitors;
- consultants' reports on competitive conditions in the industry;
- documents and interviews with executives of failed entrants, prospective entrants, and fringe firms;
- filings about competitive conditions made with other government agencies;
- documents and interviews with suppliers; and
- documents and interviews with a variety of customers.

Below we identify three areas of merger inquiry that FERC might wish to evaluate with regard to information adequacy.(6) In each of these areas, the information available to FERC and its staff appears to be substantially more limited in quantity, quality, and scope than the information that can be obtained under the procedures available to the federal antitrust agencies. Accordingly, FERC may wish to consider altering its information- gathering processes to ensure that it obtains the information needed to conduct merger investigations in the new environment of technical change and regulatory reform. In particular, FERC may wish to pursue authority, as part of its merger review process, to subpoena (and hold under strong confidentiality provisions) the decision, planning, and marketing documents of the merging parties as well as related documents from competitors, suppliers, customers and trade associations. FERC also may wish to pursue authority to depose pertinent personnel from the merging parties and from third parties under similar confidentiality conditions. Because the competitive environment in the electric industry is rapidly changing in fundamental ways, FERC may wish to address its information needs as promptly as possible.

(1) Data Approximations by Parties to Proposed Mergers(7) -- FERC requires that merging parties supply their best estimates about the operations of other firms, including current or future competitors. Our experience indicates that subjective assessments by one party about the operations of other parties can be subject to considerable error and

bias, particularly when the submitting parties have incentives to portray markets as highly competitive. In contrast, by subpoenaing data from both merging parties and third parties, the FTC staff obtains information about individual competitors that is more likely to be accurate. We also obtain the ability to cross-check important facts, such as market share data, with multiple information sources. FERC may wish to ensure that its information sources and procedures for information gathering provide it with reasonably timely and accurate information, so that its decisions can be well supported.

(2) Identifying Affected Customers(8) -- As part of the delivered price test used by FERC in assessing the relevant geographic market,(9) FERC requires that "affected" customers be listed. FERC requires that the list include any entity that purchased power over the preceding two years from the merging parties. FERC seeks advice on whether a two-year history of customers is sufficient.

In our experience, lists of actual customers provide only a limited picture of the customers who may be adversely affected by a merger. For example, we often discover that suppliers' pricing decisions focus on attracting new customers that often are not included in lists of current customers. Similarly, if a potential anticompetitive effect of a merger involves increased coordination among suppliers, the harmful effects of the acquisition may go beyond customers of the merging parties to include many customers supplied only by non-merging firms. The customers of non-merging firms often have no recent transaction history with the merging parties but, nonetheless, may be adversely affected by the acquisition. As a third example, if a potential anticompetitive effect of the merger is slower entry into new geographic markets, the affected consumers will (by definition) be those located where the parties have not previously done business. Without information about these potential customers, the merger analysis may underestimate present and future demand elasticity or incentives to innovate.(10) To address this potential information deficiency, FERC may wish to broaden its concept of affected customers to include potential customers and customers of third-party suppliers in the market(s) served by the merging parties.

(3) Coordinated Interaction(11) -- Extending FERC information sources beyond market share statistics may be particularly important in assessing coordinated interaction.(12) Review of coordinated interaction issues in the Horizontal Merger Guidelines focuses on the conditions likely to be necessary for successful collusion to take place. Successful coordinated interaction entails reaching terms of profitable coordination among firms, detecting deviations from the terms of coordination, and punishing such deviations.(13)

In our experience, an analysis of the increased likelihood of coordinated interaction is much stronger when market share statistics are supplemented with additional sources of information. For example, market share information provides little evidence with which to assess whether the proposed merger will adversely affect competition by eliminating a maverick firm.(14) To better address coordinated interaction concerns about the electric industry mergers it reviews, FERC may wish to go beyond market share analysis to increase its access to potentially useful information from third parties.

## III. Alignment with the Horizontal Merger Guidelines Framework of Analysis

FERC may wish to take this opportunity to bring the merger filing requirements in Appendix A of its Merger Policy Statement, as well as the analysis of electricity mergers that relies on these filings, into closer alignment with the information requirements of the DOJ/FTC Horizontal Merger Guidelines that FERC has adopted as its framework for merger analysis. We have identified seven aspects of electricity merger analysis covered by the Notice that FERC may wish to consider from this perspective. On the basis of our experience, each of these aspects may be significant in determining the prospective effects of a merger on competition and consumers. Accordingly, FERC may wish to revise both its information-gathering procedures and the types of information it gathers in screening mergers to enhance its merger analysis.

(1) Hypothetical Price Increases in the Presence of Elevated Pre-Merger Prices(15) -- A key element in merger reviews is determining the economic arena in which the competitive effects of a merger are likely to take place. The

economic arena is defined geographically as well as with respect to the product or service likely to be affected. Both product and geographic market assessments under the Horizontal Merger Guidelines are carried out by asking whether a hypothetical monopolist would profitably impose a small but significant and nontransitory price increase.(16) Typically, the price increase is applied to pre-merger prices to conduct the analysis. Thus, in defining the market, the Horizontal Merger Guidelines generally focus on the possibility of incremental market power due to a merger.

This approach may not be appropriate in a newly deregulating industry, such as the electric industry, where pre-merger market power may have been created or protected by regulations that are no longer in place or are likely to be relaxed. The Horizontal Merger Guidelines recognize this possibility in Section 1.11, where they specify that "the Agency may use likely future prices, absent the merger, when changes in the prevailing prices can be predicted with reasonable reliability." Changes in price may be predicted on the basis of, for example, changes in regulation which affect price either directly or indirectly by affecting costs or demand."(17) FERC may wish to recognize explicitly that this alternative definition of price may be particularly relevant in the electric industry, where past restrictions on entry, regulatory limitations on the variety of services offered, and reduced incentives to operate efficiently and competitively (associated with rate-of-return regulation) may have elevated prices above competitive levels.

(2) Duration of Anticompetitive Effects(18) -- FERC asks how long a binding transmission constraint must persist to be deemed significant. This problem commonly arises in electricity markets where peak demand periods, with binding transmission constraints, are likely to be limited to certain hours of the day during certain seasons of the year. A typical example would be weekday afternoons during the summer months. Because electricity cannot be economically stored in large quantities,(19) electricity supply and demand must be continuously balanced. Consequently, supply and demand conditions within short time intervals may be independent of each other in most respects. This may require defining electricity sales during, for example, individual hours as separate product markets, each of which may have a different geographic market associated with it. The relevant geographic market during peak demand periods is likely to be smaller than during off-peak periods because transmission congestion during peak periods may reduce or eliminate the ability of distant generators to compete. In examining the importance of a transmission constraint of short duration, FERC may wish to consider that although a transmission constraint may be of short duration, it may have large price effects(20) in a large area.(21) Such conditions (and effects) are likely to recur.

The likelihood that product markets may be defined on an hourly basis in the electric industry raises another potential complication in analyzing mergers in this industry. During some hourly periods (product markets), a proposed merger may increase the likelihood of higher prices or other competitive harm. For example, during peak load periods when transmission is constrained, the proposed merger might give rise to market power in the generation of electricity. During other hourly periods (product markets), the same proposed merger may provide merger-specific, cognizable efficiencies. For example, the merger might provide merger-specific generation efficiencies through reduced reserve requirements that allow plants with lower marginal costs to be used for reserves.(22) In such circumstances, FERC may be faced with the necessity of balancing anticompetitive effects in some product markets against efficiencies in other product markets that are served by the same assets, and that have substantially overlapping relevant geographic markets.

Under the Horizontal Merger Guidelines, such tradeoffs may be considered only where efficiencies in different markets are inextricably linked to the relevant market, as they are likely to be in the example above.(23) FERC may thus wish to consider techniques for examining the degree of linkage between efficiencies in different electricity product markets (e.g., electricity sold on an hourly basis), and whether to seek remedies that affect the same generation assets differently in different time periods.

(3) Potential Competition Concerns(24) -- Because competition may be harmed by mergers that stifle potential competition as well as by those that harm actual competition, antitrust agencies examine mergers for effects on potential competition, even if they appear to present little threat to existing competition. Potential competition issues may be important in formerly regulated industries where restraints on potential entrants may have been in place. The

FTC's recent Questar/Kern River case presented such an issue in the natural gas pipeline industry.(25) Similar situations may arise in the electric industry.

FERC may wish to acknowledge that its analysis of electric industry mergers under the Horizontal Merger Guidelines will cover potential competition effects and that FERC will incorporate this concern into its analysis generally.(26) Accordingly, FERC may wish to remove or restrict its proposed de minimis exception to the filing requirements for geographically discontiguous operations. This would allow FERC to take into account the possibility that mergers of geographically discontiguous operations(27) may nonetheless involve potential competition issues.

(4) Rate Cap Effects Compared to Competitive Markets(28) -- FERC may find situations in which behavioral remedies, such as rate caps, are appropriate, although structural remedies are generally more effective and less costly to enforce. A rate cap is often intended to replicate the constraint on prices that competition would impose. Often a rate cap takes the specific form of a freeze on current rates. Like competition, a rate freeze operates to prevent prices from going higher due to market power; unlike competition, however, it does not take into consideration the downward pressure on prices in competitive markets from technological advances in production techniques and product design.(29) Thus, a rate cap that does not include consideration of technological advances may allow suppliers to exercise market power by charging higher prices than they would under competition. To help ensure that a rate cap effectively reduces the exercise of market power, FERC may wish to consider requiring adjustments in such rate caps over time to reflect anticipated changes in costs due to technological and organizational advances.(30) We note that the rate caps adopted in the electricity reforms in the U.K. included a downward adjustment to account for technical progress.(31) As an alternative, FERC may wish to establish a lower fixed rate cap initially, to create an expected stream of income equivalent to the technological adjustment approach.

(5) Entry and Efficiency Considerations in Merger Screening Analysis(32) -- The Horizontal Merger Guidelines include consideration of entry conditions and efficiencies,(33) and such factors sometimes reveal that market share concentration statistics overstate the degree of competitive concern associated with a proposed merger. For example, consideration of entry conditions may become more important in markets for electric power as costs for smaller-scale generation facilities, with shorter construction periods and fewer siting problems, fall relative to those of large-scale generation facilities. We have in some instances extended our merger screening analysis to include evidence of likely, timely, and sufficient entry and substantial, verifiable, merger-specific, and cognizable efficiencies. FERC may wish to consider explicitly allowing its merger screening process to include these elements as well.

(6) Product Differentiation -- Although electricity is homogeneous in a physical sense, it is subject to differentiation as a product or service. Such differentiation is likely to increase over time as suppliers pursue incentives to respond to variations in customers' demands for electricity.(34) For example, as retail competition is introduced in various states, consumers will be able to express a preference for power from different fuel sources. Firms also could be differentiated by different brand names or levels of service quality. Statutory requirements also may differentiate suppliers.(35) FERC may wish to acknowledge that differentiation may alter the degree of substitutability between electricity from different sources and may thereby affect the assessment of product markets, geographic markets, and competitive effects.(36)

Information on differentiation is critical in the evaluation of competitive effects under a unilateral market power theory. "A merger between firms in a market for differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the premerger level. Some of the sales loss due to the price rise merely will be diverted to the product of the merger partner and, depending on relative margins, capturing such sales loss through merger may make the price increase profitable even though it would not have been profitable premerger."(37) Accordingly, FERC may wish to amend its filing requirements to include information sufficient to examine this possibility, including marketing plans, analysis of generation capacity, and quality of service assessments.

(7) Economic Performance Measures(38) -- FERC states that its concerns in reviewing mergers are price increases and output decreases. These economic performance measures are employed by the antitrust agencies as well, but

merger analysis under the Horizontal Merger Guidelines also refers to the effects of mergers on quality, innovation, and customer choice among product designs.(39) Given ongoing regulatory and institutional changes in the North American Electric Reliability Council, FERC may wish to indicate that it will consider effects on reliability (quality) in analyzing electricity industry mergers (because quality decreases are equivalent to price increases). More generally, FERC may wish to acknowledge that its merger analysis and merger screening will consider effects on these additional forms of economic performance that are likely to affect consumers.

## IV. FERC's Application of Computer Modeling to Merger Analysis

Power-flow and load-flow models can be applied beneficially to examine some of the issues arising in the analysis of horizontal and vertical mergers, as described in the Notice. Current modeling incorporates the technical aspects of power flows over transmission networks, but does not incorporate the economic aspects of trading in a deregulated wholesale power market. For that reason, it is likely to be useful to posit a framework for applying models and to develop in-house expertise in constructing and evaluating such models. As FERC suggests, it may be premature for FERC to adopt a single model for its analysis of electric utility mergers. The best model may vary from merger to merger, and multiple models might be needed to appropriately analyze a particular merger.

We expect that more flexible, reliable, and accurate models will be developed and might soon be commercially available.(40) Thus, it is important that FERC's approach to merger analysis, particularly as it pertains to computer modeling, remain flexible so as to allow competition among commercial vendors and encourage the development of better models.(41)

FERC may be in a unique position to assist individual states in applying computer simulation models to the difficult issue of identifying the retail market power (either existing or prospective) created by a proposed merger and fashioning effective remedies. FERC's role may be highly significant if the states (1) are delayed in developing technical expertise in the use of these models, (2) lack the broad, national overview of issues and techniques that FERC has acquired, or (3) do not consider the effects of an acquisition outside of a particular state. Assisting the states in this manner also may help FERC assess how the introduction of retail competition by the states is reducing an electric utility's native load.(42)

## V. Analysis of Alternative Scenarios

FERC may wish to take advantage of advances in computer simulation modeling techniques to examine more alternative scenarios about future technical, economic, and regulatory conditions in its merger evaluations. FERC's merger analysis is likely to confront numerous technical and factual issues that can significantly influence the conclusions reached. Analysis of alternative scenarios is likely to be particularly useful with respect to defining relevant product and geographic markets and estimating market concentration. Broadly speaking, analysis of alternative scenarios allows FERC to consider various conditions that are critical in assessing the likely competitive effects of a proposed merger. We identify four areas for analysis of alternative scenarios that FERC may wish to consider.

(1) Variations in Underlying Parameters for Geographic Market Analysis -- The Notice recognizes that applicants may face choices among sources and methods for calculating pre-merger prices in the destination markets that are relevant to FERC's proposed horizontal and vertical merger screens.(43) This discretion can affect the values of the parties' pre-merger price estimates. In turn, these estimates can affect whether the applicants will be required to file a horizontal or vertical competitive analysis and whether the merger will ultimately be set for hearing.(44)

Under FERC's proposed filing requirements, merger applicants would be asked to make their best efforts to provide or estimate data that they may not possess. As a result, important data might well contain errors. When there is uncertainty about the data, parties also would have incentives to bias the data in favor of the acquisition. Analysis using different scenarios about the nature and extent of errors could reveal the degree to which results would be robust against errors or bias in data or in any surrogate data submitted by applicants.

(2) Native Load -- The Notice raises questions regarding the treatment of native load in merger analysis. In simple terms, native load encompasses certain contractual and regulatory obligations of electric utilities to serve existing customers. These obligations may dissipate over time because of, for example, retail deregulation or the expiration of contracts. For instance, if most of the capacities of the merging parties are committed under current state regulations to serve native load customers, a merger might have little effect on concentration and competition in wholesale electricity markets in the near term. In the longer term, however, when retail competition is introduced and native load obligations are relaxed in one or more states, the same merger might have a significant effect on concentration in wholesale electricity sales.

FERC may wish to examine two scenarios: (1) relevant suppliers constrained by obligations to serve present native load and (2) relevant suppliers unconstrained by such obligations. The former assumption often would describe competition over the near term, with no expiration of contracts and no retail (or other) deregulation. The latter assumption often would describe longer-run competition that might occur as contractual obligations expire or as retail competition is implemented by individual states. It may be appropriate to challenge the acquisition if threats to competition are found under either scenario.

(3) Transmission Pricing Regimes -- Transmission pricing regimes can strongly affect the scope of geographic markets. In addition, transmission pricing regimes may be subject to changes in regulation and in the scope and nature of regional transmission agreements. For these reasons, analyses of different scenarios can usefully identify to what degree merger evaluations depend upon the transmission pricing regime(s). Differences in transmission pricing regimes may affect suppliers' access to customers within the relevant geographic markets (due, for example, to the pancaking of transmission tariffs, the availability of discounted tariff rates, and the presence of tariff regimes such as Independent System Operators (ISOs)). FERC may wish to include in its analysis a separate scenario for each reasonably foreseeable and substantial change in transmission pricing regime.

(4) ISOs and Other Potential Mitigation Measures -- Analysis of alternative scenarios can provide a useful means of evaluating the likely effects of potential measures to mitigate market power. FERC may wish to use computer simulation modeling with alternative scenarios to evaluate the likely effects of ISOs, structural divestitures, and other potential mitigation measures. For example, a structural divestiture of generation capacity by applicants would most directly affect market concentration, and an ISO would most directly affect the transmission prices (or access) that potential suppliers must face.

## VI. Vertical Mergers and Discrimination

Competition issues relating to vertical relationships in the electric industry have become a central concern in regulatory reform in the industry. FERC's Orders 888 and 889 initiating broad open access to transmission, and its recent approvals of ISOs in several areas of the country, have been motivated in large part by concerns about discriminatory behavior by vertically integrated firms against new generation suppliers.(45) As discussed below, the expanded interest in vertical competition problems now extends to vertical mergers and raising rivals' cost allegations. FERC's efforts to increase its attention to these topics may be thwarted to some degree by the same information-gathering difficulties discussed in Section II. For this reason, FERC may wish to examine whether to revise its processes for obtaining information on vertical issues, in order to meet its responsibility to conduct effective investigations of those issues when raised by proposed acquisitions.

(1) Vertical Merger Evaluation(46) -- FERC proposes to assess vertical mergers using the same data and criteria for market definition that it uses to assess horizontal mergers.(47) Our experience in assessing vertical mergers is similar to our experience in examining horizontal mergers: the analysis improves significantly with access to confidential information from a wide variety of sources. In assessing potentially anticompetitive aspects of proposed vertical integration, FERC may wish to pursue means to acquire confidential information from third parties and more detailed information from the merging parties.

(2) Self-Reporting on Raising Rivals' Cost Scenarios(48) -- FERC proposes to require that applicants provide their own review of raising rivals' cost scenarios. In our experience, depending on a firm to supply analysis that is contrary to the firm's own interests may not produce reliable information. To provide independent verification of self-reported materials, it is important to have access to assessments by third parties, documents developed in the normal course of business, and independent assessments of market conditions. Our analysis in the PacifiCorp/Peabody merger, for example, benefited greatly from an ability to examine potential raising rivals' cost scenarios under different demand conditions at different times of the day and different times of the year. If we had relied only on aggregated figures submitted by interested parties, we might not have been able to discern the competitive concerns evident upon examining the more detailed data and computer simulations.(49) FERC may wish to assure that it obtains information necessary to validate self-reported assessments concerning raising rivals' cost scenarios.

## VII. Conclusion

Through this Notice, FERC seeks to improve the information it receives in its review of proposed acquisitions in the electric industry. This is also an opportunity for FERC to align its information-gathering process more closely with the information requirements for application of the Horizontal Merger Guidelines and to incorporate new computer simulation techniques into its analysis. In a wide variety of instances discussed above, FERC may improve its merger analysis by pursuing procedural and substantive changes that can enhance access to information. Incorporating computer simulations in its analysis may allow FERC to examine the likely effects of alternative technical, economic, and regulatory developments on the competitive consequences of proposed mergers and on potential remedies.

Respectfully submitted,

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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) or Roger A. Boner (202-326-3223).

2. The proposed Revised Filing Requirements, 63 Fed. Reg. 20340 (Apr. 24, 1998)(Notice). The filing requirements were promulgated as part of FERC's 1996 Merger Policy Statement and are commonly referred to as Appendix A.

3. The staff of the FTC has previously commented on electric power regulation to FERC in Docket No. PL98-5-000 (May 1, 1998), Docket Nos. ER97-237-000 and ER97-1079-000 (Feb. 6, 1998), 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 commented to FERC about reform of natural gas regulation. See, e.g., the FTC staff comment on alleged anticompetitive practices of pipeline marketing affiliates, Docket No. RM87-5-000 (1987). The staff of the FTC has submitted comments on reform and restructuring of the electric industry to state agencies, including the Michigan Public Service Commission, Case No. U-11290 (Aug. 10, 1998); Louisiana Public Service Commission, stranded cost aspects of Docket No. U-21453 (July 30, 1998); West Virginia Public Service Commission, Case No. 98-0452-E-GI (July 15, 1998); Commonwealth of Virginia, Joint Subcommittee Studying Electric Industry Restructuring, SJR-91 (July 9, 1998); the Public Utility Commission of Texas, Project Number 17549 on affiliate transactions (June 19,

1998); the Maine Department of the Attorney General and Public Utilities Commission, "Interim Report on Market Power in Electricity" (May 29, 1998); the Louisiana Public Service Commission, market power aspects of Docket No. U-21453 (May 15, 1998); the California Public Utilities Commission, Docket Nos. R.94-04-031 and I.94-04-032 (Aug. 23, 1995); and the South Carolina Legislative Audit Council (Feb. 28, 1994).

4. Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act: Policy Statement, Order 592, FERC Stats. & Regs. ¶ 31,044 (1996)(Merger Policy Statement); U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, issued Apr. 2, 1992, revised, Apr. 7, 1997 (Horizontal Merger Guidelines).

5. See, e.g., FTC v. Cardinal Health, FTC v. McKesson Corp., Civil Action Nos. 98-595 and 98-596, slip op. at 62 (D.D.C. July 31, 1998) (noting that "[t]he FTC at trial showed, through Defendants' own internal documents and public statements, that they perceived that the excess capacity currently in the marketplace was the primary factor fueling so-called 'irrational' pricing").

6. Related discussion is contained in Section VI's examination of vertical mergers and discrimination.

7. Notice, 63 Fed. Reg. at 20343, 20347.

8. Id. at 20344.

9. Under the delivered price test, firms are included in the relevant geographic market if they are able to profitably supply the market if prices in the market increase by five percent. Individual customers or groups of customers are often treated as separate geographic markets because the delivered price test assumes that price discrimination takes place.

It is worth noting that a delivered price test generally draws geographic markets more narrowly, and thus leads to the conclusion that more mergers threaten competition, than does the process for defining geographic markets described in the Horizontal Merger Guidelines (when geographic price discrimination is not likely) (Horizontal Merger Guidelines, Section 1.21). There may be exceptions. One risk in drawing geographic markets narrowly may be that applicants will then argue that they do not compete at all, and therefore should be allowed to merge, when in fact they do compete and the merger would harm competition. Indeed, there may be some circumstances in which a broader geographic market will entail greater concentration and greater threats to competition than a more narrowly drawn geographic market. For example, if the smaller area has several suppliers, but all of the surrounding area is served by one supplier, broadening the geographic market may produce higher market concentration statistics, with a dominant position held by the firm that is the sole seller in the areas beyond the initially proposed geographic market. In general, if the proposed acquisition poses a threat to consumers in a broader market, but not in a narrower market, concern for competition is still appropriate. For discussion of other issues concerning geographic market determination under Appendix A, see, e.g., Mark Frankena, Analyzing Market Power Using Appendix A of FERC's Merger Policy Statement: Rationale, Reliability, and Results 29-34, CCH Power and Telecom Law (Jan./Feb. 1998).

10. Over time, as electricity suppliers gain more experience in marketing electricity outside traditional service territories, internally generated actual and potential customer lists of the merging parties may become more complete.

11. Notice, 63 Fed. Reg. at 20349, 20352.

12. For discussion of unilateral effects, see issue 6 in Section III.

13. Horizontal Merger Guidelines, Section 2.1. Several factors tending to facilitate coordinated interaction are discussed in the economic literature on collusion and in the Horizontal Merger Guidelines (Section 2.1). See, e.g., Douglas Greer, Industrial Organization and Public Policy 388-422 (1992); F. Michael Scherer and David Ross, Industrial Market Structure and Economic Performance 236-314 (3d ed. 1990); Richard Posner, Antitrust Law: An

Economic Perspective 55-62 (1976). For example, Posner's list of conditions favoring collusion includes: market concentration on the selling side, no fringe of small sellers, inelastic demand at the competitive price, entry taking a long time, many customers, standard product, sellers operating at the same level in the chain of distribution, price competition more important than other forms of competition, high ratio of fixed to variable costs, static or declining demand, sealed bidding, and a past history of anticompetitive conduct.

14. Horizontal Merger Guidelines, Section 2.12.

15. Notice, 63 Fed. Reg. at 20344.

16. Horizontal Merger Guidelines, Sections 1.11 and 1.21.

17. If a monopoly price is used as the starting point for the "small but significant and nontransitory" increase by the hypothetical monopolist, the market is likely to be drawn broadly and, as a result, mergers that would reinforce pre-merger market power may be permitted.

18. Notice, 63 Fed. Reg. at 20347.

19. Batteries allow some storage of electrical energy. Other technologies, such as air conditioning systems that freeze water in off-peak demand periods to use for cooling during peak demand periods, also can provide limited opportunities to store electricity. To date, these storage methods are of relatively minor significance in most areas.

20. While geographic and product market analysis is typically conducted under the Horizontal Merger Guidelines using a hypothetical five percent price increase, this analytical convenience does not indicate a "tolerance level" (Horizontal Merger Guidelines, Section 1.0) for merger-related price increases that are smaller, but more likely. At the same time, de minimis increases in market power for short, nonrecurring periods may receive less attention from antitrust agencies when the costs and benefits of enforcement are weighed.

21. Transmission constraints in one area may have widespread effects due to loop flows: the actual flows of electrical current follow the paths of least electrical resistance, not the contract path that may be specified in an electric power transmission transaction.

22. Reduced reserve requirements may allow the merged parties to cease using some generating facilities with higher marginal costs for reserves. This will reduce the marginal costs of reserves, which in turn is likely to provide profit incentives for the combined firm to reduce prices.

23. Horizontal Merger Guidelines, Section 4, note 36. Efficiencies in different markets are inextricably linked if "a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s)."

24. Notice, 63 Fed. Reg. at 20348-50.

25. See "FTC to Challenge Questar Acquisition of Kern River, Alleging Monopoly over Natural Gas Transmission into Salt Lake City Area," FTC News, Federal Trade Commission, Dec. 27, 1995. The parties abandoned the proposed transaction shortly after the FTC challenged the merger.

26. Under the Horizontal Merger Guidelines (Section 1.32), uncommitted potential entrants are assigned a market share. Firms that must commit resources to enter or take longer to enter are not treated as current participants in the market, but are regarded as potential entrants (Horizontal Merger Guidelines, Section 1.32).

27. "Safe harbor" provisions, such as FERC's proposed exception from reporting if a merger's impact on concentration is de minimis, may be attractive because they can reduce the regulatory burden where anticompetitive

effects are especially unlikely. Similarly, in our review of merger filings under the Hart- Scott-Rodino premerger reporting program, certain classes of transactions are exempted from reporting because, based on our experience, they are highly unlikely to harm competition. Where that determination cannot be made on an a priori basis, merging companies are required to submit a basic amount of information. In the vast majority of cases, we are able to determine very quickly, based on that information, that further investigation is unnecessary. But in many other cases, a more detailed examination, based on a variety of information sources, is needed to check for the possibility of anticompetitive effects. A fraction of the latter become full investigations and litigated matters.

The presence of a safe harbor provision creates strong incentives for firms to portray acquisitions in such a way that the acquisition qualifies for the safe harbor treatment. The incentive to "shoe horn" the evidence to fit within the safe harbor is greater when failure to fit within the safe harbor causes substantially greater reporting and litigation costs to merger applicants. In our experience, it is important in these circumstances to seek independent verification of the information used to qualify the proposed acquisition for safe harbor treatment.

28. Notice, 63 Fed. Reg. at 20353.

29. Alternatively, this market dynamic can be captured if the rate that is frozen is set below the current level.

30. During periods of moderate inflation, a rate cap lacking an inflation adjustment may provide a rough substitute for a technology adjustment, since real prices will fall modestly in these circumstances, inversely with gradual technical improvements rates. With deflation or substantial inflation, there would be greater cause to separate inflationary and technological effects on costs.

31. See Richard Green, Has Price Cap Regulation of U.K. Utilities Been a Success?, 12 Private Sector 25-28 (Dec. 1997); Lambert, Privatizing Electricity in Britain: The Role of the National Grid, 122 Pub. Util. Fortnightly 14-18 (Mar. 30, 1989).

32. Notice, 63 Fed. Reg. at 20348.

33. Horizontal Merger Guidelines, Sections 3 and 4.

34. The Horizontal Merger Guidelines (Section 1.41) generally prescribe capacity as an appropriate measure of market share for relatively undifferentiated products and dollar sales if firms are distinguished primarily by differentiated products.

35. For example, some states are considering requirements that a portion of electricity supplies come from facilities that use renewable sources of energy for generation. Where such legal requirements are in place, lower-cost electricity produced from non-renewable fuel sources may not be a close substitute for higher-cost electricity produced from renewable fuel sources.

36. FTC staff Comment to the Maine Department of the Attorney General and Public Utilities Commission (1998), available at <www.ftc.gov/be/advofile.htm (V980011)>.

37. Horizontal Merger Guidelines, Section 2.21.

38. Notice, 63 Fed. Reg. at 20343, 20349.

39. Horizontal Merger Guidelines, nn. 6 & 20 and Section 2.21. Indeed, the FTC has brought cases that focus on these other performance measures when a transaction may significantly affect these aspects of economic performance. See, e.g., Boston Scientific Corp., 119 F.T.C. 549 (1995). An early suppression of technology case was United States v. Automobile Mfrs. Ass'n, 307 F. Supp. 617 (C.D. Cal. 1969). For a discussion of FTC and DOJ cases

regarding technological competition, see the FTC staff report, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace, Ch. 7 (1996).

40. One important problem with current models pertains to pricing incentives. Most recent academic research in load-flow modeling assumes that energy suppliers equate their prices to their marginal costs. As examples, see the articles of the "Symposium on Transmission Access," 10 J. Reg. Econ. 1 (July 1996). This assumption may not be appropriate for electricity markets. For example, in electricity markets with high concentration, high fixed costs, and low marginal costs, prices might well diverge from marginal costs. Some recent research describes models that better accommodate pricing above marginal cost and other forms of potentially non-competitive conduct. See Severin Borenstein and James Bushnell, An Empirical Analysis of the Potential for Market Power in California's Electricity Industry (Nat. Bur. Econ. Res., working paper 6463) (Mar. 1998).

41. In this regard, the requirement that merger applicants file economic and technical data in electronic form is beneficial because it facilitates FERC's use of modeling and may allow FERC to use computer simulation modeling within its merger review process.

42. "Native load" refers to customers that a regulated electric utility is obligated to serve.

43. For example, if a substantially higher percentage of the merging parties' sales occurs in a particular season, while other firms' sales are more evenly distributed across the seasons, the parties may report data from a "typical month" that leads to a high estimate of sales by competing firms and a low estimate of their own sales. In these hypothetical circumstances, the merging parties' approach would minimize the reported effects of the proposed merger on market share statistics.

44. Under the delivered price test currently used by FERC, the scope of relevant geographic markets depends (other things equal) upon which value is nominated as the appropriate pre-merger price. Relevant suppliers would then include all suppliers that, given their costs of generation and transmission, can deliver power to a specific destination market at no more than 105 percent of the pre-merger price in that market. Consequently, a high estimate of the pre-merger price would generally support a broader and less concentrated geographic market; alternatively, a low estimate of the pre-merger price might support a conclusion that the merging parties do not compete in that relevant market.

45. Both Open Access Rules and ISOs are designed to address the incentives of incumbent vertically integrated utilities to discriminate against generation entrants in their use of the transmission grid in order to favor the incumbent's own generation investments. As discussed in our Open Access Comment, the electric industry may be prone to regulatory evasion because discrimination in dealing with entrants may be difficult to detect and document. For this reason, electric mergers that increase incentives to evade either state or federal regulation (Notice, 63 Fed. Reg. at 20350) may warrant additional attention in FERC's merger reviews.

46. Notice, 63 Fed. Reg. at 20351.

47. The Notice, however, does not state a standard for deciding whether a vertical issue needs further review.

48. Notice, 63 Fed. Reg. at 20349, 20352.

49. Federal Trade Commission, "Analysis of Proposed Consent Order to Aid Public Comment in In the Matter of PacifiCorp et al.," FTC File No. 971-0091, at 4 (Feb. 18, 1998) <www.ftc.gov/os/1998/9802/index.htm>. (The FTC withdrew from the proposed consent order as of June 30, 1998, because PacifiCorp withdrew from the merger <www.ftc.gov/opa/1998/9807/petapp39.98.htm>.)