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

Before the
United States of America
Federal Energy Regulatory Commission

Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design

Docket No. RM01-12-000

Comment of the Staff of the
Bureau of Economics and the Office of the General Counsel
of the Federal Trade Commission(1)

EXECUTIVE SUMMARY

The staff of the Bureau of Economics and the Office of the General Counsel of the Federal Trade Commission (FTC) appreciates this opportunity to present its views concerning the Federal Energy Regulatory Commission's (FERC) notice of proposed rulemaking (NOPR) regarding standard market design (SMD) of wholesale electric power markets. FERC has proposed to remedy remaining discrimination in the provision of interstate transmission services and to ensure just and reasonable rates for sales of electricity within and among regional power markets by reforming the regulated use of transmission services and standardizing the design of regional wholesale electricity markets. We offer summary views on the premises and selected major elements of the NOPR and an appendix with more detailed views on the market power mitigation, monitoring, and resource adequacy sections of the NOPR (Sections IV.I and IV. J).

Structurally competitive wholesale electric power markets are likely to provide consumers with access to lower priced electric power than would be available without regulatory reforms in wholesale and retail electric power markets. Consistent design of regional wholesale markets and uniform operation of transmission assets is likely to help accomplish this goal and, therefore, to speed and enhance competition in wholesale electricity markets to the benefit of consumers. We make several suggestions and pose additional questions that FERC may wish to address in order to increase the likelihood that SMD will enhance consumer welfare.

First, we provide summary views on the premises and other selected major elements of the NOPR.

Absent continued regulatory reform in wholesale electricity markets, discrimination in access to

Comment of the Staff of the Bureau of Economics and the Office of the General Counsel of the Federal Trade Commission(2)

I. INTRODUCTION AND SUMMARY

A. Background

The staff of the Bureau of Economics and the Office of the General Counsel of the Federal Trade Commission (FTC) appreciates this opportunity to present its views concerning the Federal Energy Regulatory Commission's (FERC) notice of proposed rulemaking (NOPR) regarding standard market design (SMD) of wholesale electric power markets. FERC has proposed to remedy remaining discrimination in the provision of interstate transmission services and to ensure just and reasonable rates for sales of electricity within and among regional power markets by reforming the regulated uses of transmission services and standardizing the design of regional wholesale electricity markets. We offer summary views on the premises and selected major elements of the NOPR and more detailed views on the market power mitigation, monitoring, and resource adequacy sections of the NOPR (Sections IV.I and IV.J) in the attached Appendix.

Wholesale electric power markets, in which there are no incentives for discrimination in provision of transmission services, are likely to provide consumers with access to lower-priced electric power than would be available in markets that use behavioral rules to govern access to transmission services. Moreover, consistent design of regional wholesale markets and uniform operation of transmission assets are likely to help encourage structurally competitive electric power generation markets by increasing the scope of geographic markets, thereby increasing the number of generators that can economically supply customers in a given area. Locational marginal pricing (LMP) of transmission services, as proposed by the NOPR, is likely to provide efficient incentives for generation, transmission, and price-responsive demand investments that will contribute to structurally competitive wholesale electric power markets as well.

Our views on the specific market power monitoring and mitigation and resource adequacy requirements in Sections IV.I and IV.J of the NOPR are presented in more detail in the Appendix. Discussed below are summary views on the premises, elements, and implementation of the NOPR proposals.

A. Premises of the NOPR

Absent continued regulatory reform in wholesale electricity markets, discrimination in access to transmission services is likely to continue to the detriment of electricity consumers.

FERC has identified four major deficiencies in current regulation of monopoly transmission services that it believes hamper sales of electricity within and among the states.(6) The first two deficiencies are not uncommon when monopoly firms continue to have incentives and the ability to engage in discrimination.(7) First, FERC's existing transmission regulations provide exemptions from open access requirements for some transmission services. FERC perceives that these exemptions result in discrimination in favor of the exempted services (native load).(8)

Second, public utilities that operate or control transmission facilities also participate in electric power markets (through ownership of generation facilities in the same areas). As a result, these utilities may continue to possess substantial transmission market power and retain the ability to discriminate in the provision of transmission service and in the dispatch of generation units to supply the grid. Third, wholesale electric power market designs, rules, and operations differ widely among areas. Lack of uniform wholesale power market designs, rules, and operations allows undue discrimination across regions (seams issues). For example, pancaking of transmission charges associated with inter- wes, (d(t)15(he n)en),ths(f)15(or)4e(,)2()11((sa)Er)4R(s)-3h13(ce)1(e)13(ao 13(c)-3(t)2n t)15(n s)11ov io 13guelto so 13fto s

structural barriers to competition that continue to delay the benefits of competitive markets from enuring to consumers.

The components of standard market design address the existing barriers to effective wholesale competition. The principal components of SMD include the following:

Network Access Service eliminates discrimination associated with native load preferences afforded to vertically integrated public utilities by providing a single open access service to all transmission users.

Locational Marginal Pricing (LMP) provides efficient pricing of transmission services and electric energy, improves investment signals, and increases the efficiency of grid operations by charging higher rates on electric power trades that cause or increase congestion on transmission lines.

Market Power Monitoring and Mitigation addresses situations in which existing electricity suppliers are likely to have market power. Circumstances that may contribute to market power problems are congestion of the transmission system (for example, into load pockets), underdevelopment of price-responsive demand policies, and entry barriers.

Resource Adequacy Requirements compensate for potential underinvestment in generation capacity, transmission capacity, and price-responsive demand programs (due to free riding by load-serving entities on the capacity reserves of others and other reasons for inadequate investment incentives, such as the market power mitigation policies proposed by FERC).

The minimum characteristics and functions of RTOs expressed in FERC Order 2000 continue to ensure nondiscriminatory access to the transmission grid. As stated previously, we encourage FERC to add efficient, customer oriented operation of the grid to its list of RTO requirements.(12)

Network Access Service ensures comparable treatment for all uses of transmission and eliminates the "native load" preference and its associated discrimination. It also should harmonize how neighboring states treat native load requirements and eliminate the issues along state borders that arise when states address transmission access in different ways. Network access service also is likely to address similar "seams" issues between RTOs.

Network Access Service represents a federal assumption of regulatory authority over all transmission uses. It also resolves the potential discrimination in favor of transmission customers serving native load that inhibits efficient operation of the grid and accentuates uncertainty concerning available transmission for unaffiliated trades on vertically integrated providers' transmission wires.(13)

Effective market power monitoring and mitigation policies in short-term wholesale electric power markets may or may not discipline anticompetitive pricing in bilateral trades in the same area. A stronger relationship is more likely to exist between short-term electric power markets and bilateral trades when spot markets are not too thin and when customers readily substitute finan3(s)-3(t)2in.5(om)v1(al)-153(or)4(t)]TJ 0 Tc 0 Tw 6.2939g

FERC and market monitors should be closely integrated; however, the public interest may be harmed if market monitors are directly able to penalize market participants.

The RTO's market monitors should report directly to FERC. FERC needs the detailed regional information and analyses developed by the market monitors. The market monitors need the authority and independence of a strong relationship with FERC to accomplish their tasks in a timely and coherent manner. Application of SMD nationwide and increased comparability in the reports of monitors will enhance FERC's ability to refine its policies and to provide useful guidance to individual monitors based on the experience of other monitors. Market monitors should not have the authority directly to penalize market participants. (These issues are discussed in the Appendix, NOPR paragraphs 444 and 445.)

Resource adequacy planning may offset

More detailed views on market power mitigation, monitoring, and resource adequacy requirements (Sections IV.I. and IV.J. of the NOPR) are elaborated upon in the Appendix. Among these are suggestions that FERC combine two of its proposed four market monitoring elements (the local market power mitigation with mitigation prompted by regional conditions) because they address similar concerns, that FERC focus on price-responsive demand programs so that the proposed safety-net bid cap can be sunset sooner rather than later, and that FERC examine whether directly addressing free riding (by load-serving entities on capacity reserves of others) would allow FERC to employ a less complex design for resource adequacy.

E. Four Additional Issues to Increase Effectiveness of the NOPR.

In addition to the topics already included in the NOPR, FERC may wish to consider four issues that are closely related to elements in the NOPR. Aspects of these issues are discussed in the Appendix.

1. Efficiency and Customer Service in Grid Operations: As discussed in our July 23, 2000, SMD comment to FERC, efficiency and customer service concerns in grid operations may arise if the grid operator lacks incentives to perform efficiently and provide strong customer service. A hybrid grid governance model combining for-profit and non-profit features may be a relatively efficient option. A for-profit operator increased profit by operating efficiently and attracting customers with good service. At the same time, the hybrid model may reduce incentives to discriminate in providing grid services. A non-profit grid operator lacks profit incentives to discriminate against generators whose siting decisions for new generation facilities (near a city) may reduce demand for transmission services. In particular, a hybrid governance model consisting of an independent non-profit governing board that determines and enforces deteang os enanbr-3(ul(c

similar. We continue to encourage the use of computer simulation modeling and related techniques that allow analysts to more accurately take into account loop flows and other sources of congestion to more accurately measure potential market power. Increased use of these techniques by FERC and market monitors may enhance FERC's market power analysis in all contexts.

III. CONCLUSION

Implementation of standard market design is timely and likely to promote benefits to consumers by improving the accuracy of investment and consumption signals and by reducing existing market power or its exercise. Further, we agree with FERC's enumeration of the major components that should be included in standard market design. In the long term, efficient investment in generation, transmission, and price-responsive demand programs are likely to be the best remedies for market power. These approaches are likely to be preferable (with respect to efficiency and administrative costs) to bid caps and resource adequacy requirements for assuring that wholesale electricity prices are just and reasonable. We encourage FERC (and the states), therefore, to treat price-

longer inefficient consumption and investment incentives will persist. In-home energy conservation during peak demand hours, on-site generation, and new technologies to popularize price-responsive demand are unlikely to flourish while proxy measures for price-responsive demand are in place.

2. Overview of Market Power Mitigation Measures [398 to 405]

FERC's proposed market power mitigation measures are divided into four components. The first component is an obligation for a supplier to supply the market when FERC or a market monitor considers it to have market power. Such generators would be required to offer their electricity supply at a bid that is capped,(20) although the generator will receive the market clearing price. This component is intended to address local market power problems and is similar to the reliability must-run agreements used in ISOs at present. The second component consists of a bid cap that is intended to reduce suppliers' ability to exercise market power. FERC proposes this cap as a proxy for price-responsive demand. The third component is a resource adequacy requirement intended to counter the reduced investment incentives caused by the first two components and by free riding of some load-serving entities (retail suppliers) on the capacity reserves of others. The resource adequacy requirement would penalize retail suppliers that do not procure sufficient generation, generation contracts, or demand reduction commitments to meet projected future demand. The fourth component involves bid caps that are triggered by specified unusual events in the region or nation (e.g., drought) that may increase market power.

We raise two general concerns about the overall market monitoring and mitigation proposals before discussing issues related to each component.

[402: The fourth market power mitigation component.] FERC may wish to combine the first and fourth components of its market power mitigation proposals because they are similar and overlap. Both employ bid caps coupled with must-run obligations to address the same concern, namely, periods of time in which various triggers designated by FERC or the market monitoring unit indicate that a generator has market power. We are concerned that maintaining two separate remedy components using the same techniques toward the same ends may lead to redundancies and other inefficiencies in the administration of these remedies or overapplication of market power remedies.

FERC could use the same contractual framework for both components by including a section in the contract between the generator and the RTO or independent transmission provider (ITP)(21) that gives to the RTO (or ITP) (at FERC's direction) the authority to invoke these caps and must-run obligations when regional conditions make the exercise of market power likely.

[404 and 405: Mitigation focused on spot markets.] FERC's monitoring and mitigation proposals focus on market power in day-ahead and real-time spot markets. The focus on spot markets appears to be premised on the view that market power mitigation in electricity spot markets also mitigates market power in electricity bilateral trades. As a general matter, the validity of this assumption is likely to depend on the degree of substitutability between spot market trades and bilateral trades from the customers' perspective and on the closeness of other potential substitutes available to customers facing efforts by

This section describes the first of the four components of FERC's proposed market power mitigation program.(25) FERC proposes an initial market power assessment followed by annual updates conducted by each market monitoring unit. A finding of local market power by the market monitor triggers market power mitigation for that generator in the form of bid caps and must-run obligations. System reliability requirements and high concentration of generator ownership within a load pocket are the focus of the market power assessments. We urge FERC to require that market monitors utilize economically appropriate techniques for conducting market power assessments. The DOJ and FTC Merger Guidelines provide such a framework. As discussed below, accurate assessment of the geographic market during different time periods is particularly challenging in assessing electric power markets, and computer simulations of grid congestion conditions are often an important element in such assessments.

[409: Effects of bilateral contracts on market power in spot markets for load pockets.]

Under the first component, when a generator is found to have market power, the generator will have an obligation to supply the market and to bid at or below a predetermined bid cap. FERC may wish to allow such generators to meet a must-run obligation (under bid caps) with a forward contract (long-term or short term) that obligates the generator to supply its full capacity to the market at prearranged prices. Such a contract would accomplish the same policy objectives as the must-run requirement with bid caps -- it assures that the generator's capacity is not physically withheld from the market and that the supplier is not responsible for increasing the market-clearing price above competitive levels in the real-time spot market or the day-ahead market. Because the two arrangements have equivalent effects and because forward contracts are more likely to efficiently reflect market supply and demand conditions, FERC may wish to allow generators to satisfy a must-run obligation through forward contracts.(26)

FERC references our comment of July 23, 2002, for the proposition that bilateral contracts are an effective way for a buyer to mitigate the market power of a seller. We wish to note that bilateral contracts do not inherently mitigate market power. Rather, bilateral contracts can mitigate market power, for example, because their terms can encompass longer time periods than spot market transactions and, within these longer time periods, buyers have a greater range of alternative sources of supply. One of the most important of these alternative sources of supply is entry of new generation or transmission capacity. Demand response programs are also a form of entry because they can be bid into the ancillary services market as a form of capacity reserves. Bilateral contracts can also mitigate market power if they reduce concentration (and there is no precommitment by the seller to reduce output during the ndb t-3(ar)4(kem)10(a)]TJ2(h)13()13(s)-3(ep ()15(i)-1(ex)211(r)4(/TThv 9te iower3(g262.2(t)2(hey)11(r)4(ed)13(uc)11(e c)11(onc)-3(

Alternative sources of supply may vary greatly over time due to changes in transmission congestion, equipment outages, and relative fuel prices, for example. Economic analysis of wholesale electric power markets generally finds that the geographic market varies over the course of the day and between seasons based on these factors. We encourage FERC to adhere to the economic meaning of geographic markets as described in the Merger Guidelines and not to a static geographic construct, even if using such a construct would be administratively convenient.

If FERC finds that suppliers outside of an ITP are exercising market power on sales within the ITP at times when market power is likely to be exercised, then it may wish to reevaluate whether the geographic scope of the ITP is too

increases when a longer time period is considered. Variable cost approaches total costh9C1(on) tlo-

[432 Request for comments on whether market monitor should report on market neutrality of ITPs.] FERC asks if market monitors should report regarding the market neutrality of the ITP. In our view, market neutrality is a hallmark of the ITP's (RTO's) independence. Evaluating each ITP's market neutrality, therefore, is part FERC's task of

half of this assessment.(46)

geographic scope of the area within which adequacy is assessed. FERC may wish to emphasize this point when it considers the geographic scope of ITPs. Since resource adequacy may relate to broad geographic areas up to the size of the interconnect, FERC is most likely to be able to avoid seams issues in resources adequacy planning by insisting on large ITPs.

[489 Adequacy of future supply to meet projected demand.] FERC highlights the relationship between the degree of reliance on hydro and what should constitute adequate capacity reserves in a region. We agree that reliance on hydro is one important factor in establishing adequate reserve levels. FERC may wish to consider other factors as well since the reliability of other types of units is also subject to change. For example, oil, natural gas, and nuclear units may face fuel shortages or other types of disruptions as a group. In general, changes in relative fuel prices may also give rise to changes in the shape of the supply curve that can induce greater volatility in wholesale prices in a region, even if they do not cause blackouts. For this reason, resource adequacy planning might also address the diversity of generation resources in a region or by a particular load-serving entity.

[493 Proposed minimum 12% reserve margin.] FERC proposes to establish a minimum requirement for the capacity reserve margin of 12% in each region. FERC may wish to study relationships between capacity reserve margins and evidence of pricing above competitive levels. The research of the California ISO in this regard may serve as a model for such studies.(54) FERC may wish to establish its minimum capacity reserve requirements on the basis of such research. FERC may also wish to consider minimum capacity reserve margin assessments in sub-areas of the region that constitute relevant markets during some periods of time. In particular, separate reserve margin assessments for load pockets may be appropriate because regional reserves may not be available to an area with transmission constraints.

[507 Demand response can substitute for generation in resource adequacy assessments.]

or planned expansion of generation, transmission, and p

independent, for-profit transmission companies (ITCs) to maintain the grid within the ITP's boundaries.(60) Both the market operator and the ITC's within an ITP would work under rules created and monitored by the ITP's governing board (and also monitored by the market monitoring unit). We believe that a hybrid ITP governance model of this type that combines independence with strong efficiency incentives may be attractive for both wholesale market participants and retail consumers. The independence stems from provisions regarding the qualifications and selection

should focus on alleviating transmission bottlenecks in deregulated markets with high levels of concentration and entry impediments - because, as antitrust teaches us, these markets are the most susceptible to anticompetitive harm.

11. An ITP is an interim independent provider of transmission services pending formation of an RTO in the region where the ITP is located. An ITP may encompass the transmission assets of only a single utility, for example, whereas an RTO encompasses all of the transmission assets in a region.

12. FTC Staff Comment, FERC Docket No. RM01-12-000 (Jul. 23, 2002).

13. FTC September 2001 Staff Report, pp. 19-21.

25. This discussion assumes that consumers are better off with triggered mitigation than with wholesale cost-of-service regulation or unmitigated prices when there are market power problems that cannot be addressed adequately by feasible structural remedies.

26. This suggestion is also made in the FTC Staff Comment in FERC Docket No. RM01-12-000 (Jul. 23, 2002) at Section II.D.

27. See John R. Morris, "Finding Market Power in Electric Power Markets," International Journal of the Economics of Business, Vol 7(2), 2000, pp. 167-78.

28. See Scott M. Harvey and William W. Hogan, "Market Power and Market Simulations" (Jul. 16, 2002), available at <http://www.kgs.harvard.edu/whogan>. Model specifications will include, for example, transmission capacity, line losses, and generators' capacities, fuel costs, and heat rates. If the market monitor uses the ITP's dispatch software in its modeling, some of the uncertainty regarding the correct model parameters should be reduced.

29. Over time, insights about facilitating or mitigating circumstances could lead to identification of additional shortcuts in the analysis.

30. When demand is more price sensitive, the profit-maximizing price for suppliers with market power is lower because the sales loss caused by a given price increase is larger. A bid cap causes sellers to behave as profit-maximizing sellers would if they faced a demand that became perfectly elastic with respect to price at the price equal to the bid-cap.

31. See, e.g., Mark W. Frankena, "Geographic Market Definition for Electric Utility Mergers," The Antitrust Bulletin (Summer 2001), pp. 357-402.

32. The safety-net bid cap may proxy the effects of prices-response demand from the perspective of suppliers, but does not create corresponding incentives to reduce consumption. Thus the combination of safety-net bid caps and must-run obligations maintains the pre-mitigation output and consumption (because real-time retail prices remain largely unaffected), while reducing any price effects that might have been due to withholding.

33. If such variations increase system costs, then FERC may wish to evaluate the costs and benefits of allowing variations in the safety-net bid caps within an interconnect.

34. Several techniques could be used to study this type of issue. Two examples are financial case studies and econometric studies of the history of entry. The first involves examining how a variety of binding bid caps affect recovery of fixed costs for a variety of different types of generators under a variety of scenarios about demand levels. These case studies and financial simulations could then provide insights about how changing the level of the bid caps would affect recovery of fixed costs by entrants. The second is to study rates of entry by generators during different economic conditions. Differences in economic conditions would proxy different rate caps. Both domestic and foreign experience could be considered and econometric techniques could be used in this type of study.

35. This discussion applies to output decisions of existing facilities. If investment decisions are being made, then long-run impacts of bid caps may occur immediately in the form of reduced future capacity.

36. Comment of the FTC Staff, FERC Docket RM01-12-000 (Electricity Market Design and Structure: Strawman Discussion Paper for Market Power Monitoring and Mitigation) (Apr. 3, 2002) at Section IV.

37. See Christopher C. Klein, Economics of Sham Litigation: Theory, Cases, Policy, Washington, D.C.: Federal Trade Commission, 1989. To the extent that "... collateral market benefits of suing are necessary to justify the predator's expense of litigation, one can think of sham litigation as litigation that would not be undertaken if the parties were not competitors."

38. See

reforms in the existing installed capacity (ICAP) framework, including methods to incorporate price-responsive demand programs into the ICAP framework. Because ICAP creates ongoing, gradual incentives for load serving entities to have adequate reserves, its application is less abrupt and less directly tied to demand curtailment