

**Before the
United States of America
Federal Energy Regulatory Commission**

Electricity Market Design and Structure)
(RTO Cost Benefit Analysis Report)) Docket Nos. RM01-12-000, et al.

**Comment of the Staff of the
Bureaus of Economics and Competition and the Office of the General Counsel
of the Federal Trade Commission¹**

April 23, 2002

¹ This comment represents the views of the staff of the Bureaus of Economics and Competition and the Office of the General Counsel of the Federal Trade Commission. They are not necessarily the views of the Federal Trade Commission or any individual Commissioner. The Commission has, however, voted to authorize the staff to submit these comments.

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I. Introduction and Summary

The staff of the Bureaus of Economics and Competition and the Office of the General Counsel of the Federal Trade Commission (FTC) appreciates this opportunity to present its views regarding ICF's study entitled "Economic Assessment of RTO Policy"² that was commissioned by the Federal Energy Regulatory Commission (FERC). The study reports estimated costs and benefits, attributable to generation efficiency gains and expanded wholesale trades of electricity that may be associated with establishing Regional Transmission Organizations (RTOs). The scenarios analyzed in the study include the base case (status quo), full implementation of RTOs, RTO benefits limited to transmission, establishment of demand response programs, larger RTOs, and smaller RTOs.

We encourage efforts by FERC to determine the costs and benefits associated with alternative regulatory reforms in the electric power industry, including RTOs. Providing structural remedies to

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² The study was released on February 26, 2002.

anticompetitive incentives for discriminatory transmission access and expanding wholesale electric power trading opportunities are likely to provide benefits to consumers as we have described in previous staff reports and comments to FERC and to state public utility commissions. The present study, however, fails to address some of the most critical choices that FERC faces in developing RTOs. Our comment focuses on (1) a methodological deficiency in the study; (2) additional cost and benefit issues regarding RTOs that FERC may wish to address; (3) sources of likely costs and benefits of RTOs that are not covered in the study; and (4) potential approaches to increasing consumer benefits in the few geographic areas in which the formation of RTOs might otherwise cause wholesale electricity prices to rise because of increased exports. In sum, we are concerned that the study has an important methodological problem and does not address several critical issues in the areas of governance structures for RTOs, the fiduciary responsibilities of individual members or directors, and incentives for efficient RTO management and operation generally.

II. FTC Background

The FTC is an independent administrative agency responsible for maintaining competition and safeguarding the interests of consumers. In the electric power industry, the staff of the FTC often analyzes regulatory or legislative proposals that may affect competition or the efficiency of the economy, in addition to its review of proposed mergers in the energy industry, which includes gas, electricity, coal, pipelines, petroleum, and gas stations. 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 Commission has issued two Staff Reports

(July 2000 and September 2001) on electric power industry restructuring issues at the wholesale and retail levels. The July 2000 FTC Staff Report established a policy framework for increased competition in wholesale and retail electric power markets that was based on four policy objectives the Commission had previously articulated,³ two of which are applicable in this proceeding: to eliminate or reduce substantial and durable horizontal market power in electricity generation markets; and to remove incentives for vertically integrated firm to engage in undue discrimination and cross-subsidization.⁴ The September 2001 FTC Staff Report reviewed those features of state retail competition plans that have provided benefits to consumers and those that have not. It also discussed whether states had sufficient authority to implement successful retail competition programs.⁵ Since the September 2001 FTC Staff Report, FTC staff has filed four comments with FERC regarding standards of conduct for transmission

³ See Letter of the Federal Trade Commission to House Commerce Committee Chairman Thomas Bliley, Analysis of H.R. 2944 (Jan 14, 2000).

⁴ FTC Staff Report: Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform (Jul. 2000), available at <<http://www.ftc.gov/be/v000009.htm>>. This report compiles previous comments that FTC Staff had provided to various state and federal agencies. For example, FTC Staff has commented to FERC on electric power regulation in Docket No. RM99-2-000 (regional transmission organizations) (Aug. 16, 1999); Docket EL99-57-000 (Entergy transco proposal) (May 27, 1999); Docket RM98-4-000 (merger filing guidelines) (Sept. 11, 1998); Docket No. PL98-5-000 (ISO Policy) (May 1, 1998); Docket Nos. ER97-237-000 and ER97-1079-000 (New England ISO) (Feb. 6, 1998); Docket No. RM96-6-000 (merger policy) (May 7, 1996); Docket Nos. RM95-8-000 and RM94-7-001 (open access) (Aug. 7, 1995). The FTC staff comments are available at <<http://www.ftc.gov/be/advofile.htm>>.

⁵ FTC Staff Report: Competition and Consumer Protection Perspectives on Electric Power Regulatory Reform, Focus on Retail Competition (Sep. 2001), available at <<http://www.ftc.gov/reports/index.htm>>.

providers,⁶ interconnection standards,⁷ market based rates,⁸ and FERC's strawman proposal regarding market power monitoring and mitigation.⁹

III. A Critical Methodological Issue

Loop flows and the transmission congestion that they can engender have been key concerns in assessments of market power, in the development of RTOs, and in discussions of grid reliability.¹⁰ However, the ICF model appears to assume that the transmission system linking "subregions" is like a pipeline network in which loop flows do not occur. Due to this flawed assumption, predictions regarding electricity flows between subregions may be distorted. Models that account for loop flows exist and, other things equal, are likely to be more accurate. Evaluation of RTOs using a methodology that does not take loop flows into consideration may result in inaccurate assessments and is inconsistent with the basic premises and purposes of RTO design.¹¹

⁶ FTC Staff Comment on Docket No. RM01-10-000 (Dec.20, 2001).

⁷ FTC Staff Comment on Docket No. RM02-1-000 (Dec. 21, 2001).

⁸ FTC Staff Comment on Docket No. EL01-118-000 (Jan. 5, 2002).

⁹ FTC Staff Comment on Docket No. RM01-12-000 (Apr. 3, 2002).

¹⁰ Unlike fluids or gases that move through a pipeline system with valves on specific routes, electric power follows the laws of physics and flows along the paths of least resistance. Power generated at point A for consumption at point B in fact flows along all transmission lines between those two points, including lines on indirect routes. Electricity does not flow along a single transmission path even if parties to a transaction assume a particular contract path for purposes of the transaction.

¹¹ FTC staff has not reviewed the ICF computer simulation model or data and, therefore, expresses no opinion on such details.

IV. Additional Policy Issues for which Cost/Benefit Analysis May Be Useful

Another concern with the study is that it provides estimated costs and benefits that could be attributed to expanded wholesale trades or to generation efficiency gains in general, rather than to formation of RTOs or to particular aspects of RTOs. Specifically, the study estimates the value of increasing *inter-regional trade* in wholesale electricity markets. It does not evaluate the costs and benefits of RTOs as transmission governance structures necessary to increase inter-regional trade. We believe that this flaw stems from the decision to compare costs and benefits of RTOs to the status quo, rather than to alternative policies with objectives similar to the use of RTOs. The comparison adopted in the study assumes that the next best alternative to RTOs is the status quo, which is not necessarily the case. There are likely to be other approaches to reducing transmission costs and expanding transmission capacity. This observation is not intended to suggest that the study could or should include all potential policy options with similar benefits, but the study would provide greater insight if it compared the costs and benefits of RTOs to other policy options in addition to the status quo.

Moreover, the study assumes the move to RTOs will have a number of beneficial effects. These may or may not occur, and they may be attainable by other means. For example, one of the projected RTO benefits relative to the status quo is reducing system-wide average reserve margins from 15 to 13 percent by 2020. The use of RTOs is not necessarily the only way to reduce system-wide reserve margins.

The study also ignores the important role of the yet-to-be-specified governance structure of each RTO in determining the benefits of RTOs. As it moves forward, FERC may wish to undertake a cost/benefit analysis of the various possible governance structures of RTOs (*e.g.*, for profit, not-for-

profit, or a combination of both). We believe that this concern is of utmost importance.

In the FTC Staff Comment of August 16, 1999 (Section IV) on then-proposed Order 2000, we sought to draw FERC's attention to the issue of efficient operation of RTOs. We recommended that FERC add efficient incentives as a minimum characteristic of effective RTOs to ensure that RTO independence does not devolve into indifference to the quality of service, the pace of innovation, and changes in customer preferences.¹² Moreover, concerns about providing competitively neutral market rules for operating, expanding, or connecting new generation sources should not preclude consideration of for-profit operation of the grid under a non-profit entity that develops these rules and monitors compliance.¹³ To focus attention on the efficiency issue, FERC may wish to state its interest in efficiency of RTO operations during its development of a standard market design. Accordingly, FERC may wish to evaluate the costs and benefits of a variety of RTO governance and operating arrangements.

V. Additional Determinants of Costs and Benefits of RTO Policy Options

We identify three additional determinants of costs and benefits that FERC may wish to incorporate in its cost/benefit analysis of RTOs. FERC may wish to assure itself that the effects of these determinants are not so substantial that they fundamentally would alter the results of its cost/benefit assessments.

¹² FTC Staff Comment at 28.

¹³ FTC staff commented on this potential approach in reference to Entergy's transco proposal in FERC Docket No. EL99-57-000 (May 27, 1999) and in Docket No. 96-UA-389 before the Public Service Commission of the State of Mississippi (Aug. 28, 1998).

Canada's transmission policies: Canadian generators and loads are integrated into the U.S. transmission grids that serve a substantial portion of the U.S. population. Assumptions about Canada's approach to transmission issues specifically, and electric power regulation generally, could materially affect the projected costs and benefits of RTO formation, particularly in the northern tier of states.¹⁴ Hence, FERC may wish to include explicitly consideration of Canada's transmission policies in its analysis of RTO costs and benefits.¹⁵

Relative fuel prices and variations in rainfall conditions: Experience in the Western United States suggests that shifts in relative fuel prices and rainfall conditions can materially affect market prices for wholesale electricity and, thus, the costs and benefits of various reform options. Greater insights about the effects of fuel price volatility on RTO costs and benefits could be gained if they were also measured, for example, with higher and lower natural gas prices.¹⁶ More generally, FERC may wish to examine whether the increased regional trading associated with RTOs is likely to dampen regional effects of changes in relative fuel prices or rainfall conditions.

Emerging generation and storage technologies: Policies that give retail customers incentives to reduce consumption from the electric power grid when wholesale prices are high have been identified as a high priority for policy reforms in both the September 2001 FTC Staff Report on retail

¹⁴ Integration discussions with Canadian suppliers and regulators have been reported recently. "Canadians Interested in Becoming NERTO Members Too," Restructuring Today, March 15, 2002, pp. 2 & 3.

¹⁵ A related possibility is synchronization of the eastern and western interconnects and those of Texas and Quebec. See, FTC Staff Comment, FERC Docket No. RM99-2-000 (regional transmission organizations) (Aug. 16, 1999) at 18, n.31.

¹⁶ ICF Study at 44-45.

competition¹⁷ and in recent FERC policy papers.¹⁸ These policies may include incentives for simple behavioral changes (such as shifting electricity consumption to times of day when electricity is less expensive) and deployment of new technologies. The “demand response” scenario in the study posits a specific curtailment of peak loads (3.5 percent reduction starting in 2006)¹⁹ due to policy reforms that provide a stronger link between retail prices and wholesale prices.

There are a wide variety of projections, however, regarding the rate of commercial diffusion of new technologies, including distributed generation and other emerging onsite generation technologies or electric power storage technologies,²⁰ that can be used to increase demand responsiveness to retail prices changes.²¹ These projections often vary based on whether and when time-sensitive pricing applies to retail electricity customers, since customers’ incentives to invest in these technologies increase when time-sensitive pricing is implemented. FERC may wish to examine a greater range of assumptions about the rate of diffusion for these and other technologies as it reviews RTO policy options.

¹⁷ FTC Staff Report of September 2001, Chapter III.

¹⁸ FERC, Strawman Discussion Paper on Market Power Monitoring and Mitigation (Feb. 2002), FERC, Standard Market Design (Mar. 2002), available at <www.ferc.gov>.

¹⁹ ICF Study at 31.

²⁰ Although this portion of the comment focuses on generation technology improvements, there are potential technology improvements in transmission that also may warrant additional sensitivity analysis.

²¹ FTC Staff Comment on Docket No. R.98-12-015 (Mar. 17, 1999) before the Public Utilities Commission of the State of California, and The Consumer Energy Council of America, Distributed Energy: Towards a 21st Century Infrastructure (July 2001).

VI. Reducing Costs in Geographic Areas where the Study Found that Costs are Likely to Exceed Benefits

In a few geographic areas, the study indicates that implementing RTOs likely would result in higher prices rather than lower prices for retail customers. The study specifies that these areas are characterized by lower-than-average costs of generation coupled with a supply curve that is more steeply sloped than those in other areas.²² Under these circumstances, relatively small increases in exports of power to higher-cost areas can result in increased average prices in the exporting area because higher-cost units are the marginal suppliers for a substantially increased proportion of time. FERC may wish to explore the costs and benefits of policy options that might address concerns of customers in these areas. Low-cost policy options that would assure that customers in all areas benefit on net from RTOs may be attractive and secure wider acceptance of RTOs that will improve system efficiency and increase competition. For example, facilitating entry of generation that would make the slope of the supply curve in these areas less steep may alleviate concerns about net price increases in the identified areas.

VII. Conclusion

FERC may wish to improve its cost/benefit methodology and ensure that its cost/benefit assessment distinguishes the costs and benefits that are specifically attributable to RTO reforms. A potentially important consideration that is not addressed by the study is efficient investment in, and

²² These conditions might arise, for example, if an area uses low cost coal for base load plants with capacity sufficient to supply local demand during most periods, but uses high cost gas in antiquated peaking plants to meet demand during occasional demand spikes.

operation of, the grid. In particular, FERC may wish to examine the costs and benefits of various RTO governance structures that may provide different incentives for efficient behavior by RTOs. For example, FERC could examine whether for-profit operation of the grid through independent transmission companies, operating portions of the grid under market rules established and monitored by a non-profit, independent RTO and FERC, yields net benefits.

Further, the study omits some potentially important determinants of costs and benefits of RTO formation that FERC may wish to consider. Integration of the U.S. and Canadian grids, changes in relative fuel prices and rainfall conditions, and the pace of distributed generation development are three such omissions. Finally, FERC may wish to examine low-cost policy alternatives that would alleviate customer concerns in geographic areas where prices otherwise would be expected to rise on net as a result of increased exports brought about by RTOs.

Respectfully submitted,

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