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**DAFFE/COMP/WP2/WD(2002)30**

**Working Party No. 2 on Competition and Regulation**

**ROUNDTABLE ON COMPETITION ISSUES IN THE ELECTRICITY SECTOR**

**-- United States of America --**

*This document is submitted by the Delegation of the United States of America to the Working Party No. 2 FOR DISCUSSION at its next meeting on 21 October 2002.*

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**COMPETITION ISSUES IN THE U.S. ELECTRICITY SECTOR**

*Written Contribution from the United States of America<sup>1</sup>*

Federal sector regulator to implement a standard market design (SMD) for wholesale markets throughout the U.S.<sup>4</sup>

4. Regulation of the U.S. electricity sector reflects the federal structure of the U.S. government in the U.S., that is, both states and the Federal government have electricity sector regulators with separate, but partially overlapping responsibilities.<sup>5</sup> At the national level, the electricity sector regulator is the Federal Energy Regulatory Commission (FERC). Historically, FERC's jurisdiction has centered on wholesale electricity sales and associated high voltage transmission services. FERC has legislative authority to establish rates for wholesale electricity sales and for transmission services that are just and reasonable. For several years, FERC has generally granted market-based rate authority (for wholesale transactions) to generators meeting its market power screen.<sup>6</sup>

5. Historically, state jurisdiction has centered on retail electricity rates and service. Retail service is supplied primarily by private, for-profit, vertically integrated utilities with monopoly franchise areas. States generally regulate retail electric power rates and service through a public utility commission. In a state that has not implemented a retail competition (also termed customer choice) program, the public utility commission typically employs rate-of-return criteria to determine retail prices. Retail rates usually differ for residential, commercial, and industrial customers. In a state with a retail competition program, rates are often controlled de facto by continued regulation of prices for a state designated provider of last resort (POLR). Prices charged for POLR service remain regulated by the state public utility commission. The POLR supplier is the default supplier if a retail customer fails to select an electricity supplier or if the alternative supplier selected by the retail customer exits. In many states, the regulated prices for POLR service have, for extended periods of time, fallen below prices at which new suppliers can profitably enter.<sup>7</sup> States also retain control over the siting of generation and transmission lines within their borders.

6. Authority to review mergers in the electric power industry is held concurrently by FERC and the federal antitrust agencies. For mergers between electricity suppliers, the Department of Justice Antitrust Division is the primary antitrust agency. For mergers between electricity suppliers and fuel suppliers, either DOJ or the Federal Trade Commission is the applicable antitrust agency. State public utility

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<sup>4</sup> United States of America Federal Energy Regulatory Commission (FERC), Notice of Proposed Rulemaking (July 31, 2002), Docket No. RM01-12-000, Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design.

<sup>5</sup> FERC and state commissions also divide responsibilities for regulating the natural gas sector. Most of the natural

commissions and state attorneys general also review proposed mergers between electricity suppliers (or between an electricity supplier and a firm that supplies fuel to competing electricity suppliers -- a convergence merger).

7. Recently, a number of traditional divisions in jurisdiction between FERC and the states have come under scrutiny. FERC's proposals for wholesale standard market design include FERC's assertion of jurisdiction over all transmission services. Legislation before Congress on electricity regulation includes provisions for granting transmission siting authority to FERC.

8. Another recent development is increased awareness of the critical role of POLR prices in retail competition programs. Texas is the most recent state to commence a retail competition program and its POLR pricing, unlike that in most other states, is subject to frequent adjustments based on changes in fuel costs.

### **Factors Affecting Market Power**

9. Due to the size and diversity of the U.S. electricity sector, conditions affecting market power





important was the degree to which the divestitures involved vesting contracts<sup>17</sup> for the output of the divested generation. Most states with divestiture programs also included fixed price, multiyear POLR programs that would be supplied by the divested generation units under vesting contracts of the same duration. In most instances, the incumbent utility remains the POLR provider. It remains to be seen how POLR programs will be supplied once these vesting contracts expire.<sup>18</sup> By contrast, the California retail plan called for exclusive reliance on spot market trades to satisfy retail demand by the three largest distribution utilities.<sup>19</sup> As a result, no vesting contracts (and the implied hedges against changes in wholesale prices) were arranged by the largest divesting utilities in California.<sup>20</sup>

16. FERC has not required generators to divest transmission capacity. Rather, it has encouraged

drawbacks associated with other approaches. Experience with zonal pricing in California suggests that



imports from Quebec to the U.S. involve use of DC connections to the U.S. grid because Quebec is a separate, nonsynchronous grid.

22. Grid expansion is one of the functions of RTOs explicitly identified by FERC in Order 2000. Under Order 2000, RTOs are supposed to develop policies governing grid expansions. Some proposals for grid expansion policies of RTOs allow merchant transmission projects (e.g., a transmission projects undertaken by investors that do not own or operate transmission in the area of the new transmission line). Two merchant transmission projects of this type have recently been approved by FERC. One of these involves an underwater transmission cable between Long Island and Connecticut. FERC's standard market design proposals contain another provision for augmenting transmission investment incentives. Under this proposal, FERC or a regional advisory siting committee would identify the most significant potential grid additions. If FERC found that the system benefits from a prospective transmission project exceeded the benefits investors would be able to appropriate (by selling the FTRs associated with the project), FERC could, for example, authorize a higher allowed rate of return 1D0(uge)0.8(sh1.1(te)-241t(ra)1.8(rn)41-62i

25. Suppliers can reflect various physical characteristics (such as ramp rates, minimum run times and high/low operating levels and cost components in their offers. In both the day-ahead and real-time markets, sellers would have the option of submitting multi-part bids, e.g. submitting separate but related bids for start-up costs, no load costs and energy. are allowed to bid a wide schedule of offers.

26. The day-ahead market price is a forward price, while the real-time market price is called the spot price, since it is based on the actual physical delivery of energy. In fact, in most of the existing ISO markets, almost all of the power delivery is settled day-ahead, with only minor deviations settled in real time (i.e., to the extent a buyer or seller is short in its power position, it must purchase power at the applicable real-time price for the excess amount). The day-ahead price and real-time price have converged in the more efficient markets, such as the PJM-ISO.



market power are not *per se*



new generation projects in part because of its relatively benign environmental effects, flexibility (low ramp up costs and delays), and technical improvements in the efficiency of natural gas generators. In the case of California, recent entry has also been encouraged by streamlined siting procedures.

40. FERC's intense interest in resource adequacy as part of its market power mitigation strategy is consistent with research findings of the California ISO's market monitor that when capacity reserves exceed 14% to 19% of reliable capacity, wholesale electricity spot market prices are less volatile and less likely to display increases associated with exercise of market power.<sup>49</sup>

## **(8) Competition Law Enforcement**

### *Mergers*

41. The most recent publicly disclosed merger investigation between electric power suppliers involved a proposed acquisition of generation assets in Connecticut by another generation owner with plants in the same area. Investigation by the Attorney General of Connecticut indicated that the proposed acquisition by NRG of two generating facilities (with combined capacity of over 1000 MW) in New Haven and Bridgeport from Wisvest would substantially increase generation concentration in parts of the state that faced transmission constraints during peak demand periods.<sup>50</sup> The Connecticut Attorney General presented his concerns to FERC. FERC subsequently set a technical conference on the competitive effects of the sale. The parties cancelled the sale.<sup>51</sup>

42. The most recent, publicly disclosed convergence merger case involved an electric power distributor (DTE) and a natural gas distributor (MichCon) that both serve the Detroit, Michigan, area.<sup>52</sup> In that investigation, the FTC staff found that electric power distribution services competed with natural gas distribution services for some customers and that the competition between the two would likely increase over time (absent the merger). The case was settled with an agreement by which the acquirer divested a perpetual right to use a portion of the natural gas distribution system in the Detroit area to a new entrant. The capacity available to the entrant can be increased as demand grows for end uses, subject to competition between gas and electric distribution services. The settlement was modeled on release capacity arrangements, which were effectively implemented previously for interstate natural gas pipelines.

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<http://www.eia.doe.gov/cneaf/electricity/ipp/html1/t14p01.html>]

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43. Another notable FTC convergence case involved the acquisition of Peabody Coal Company (the largest U.S. coal supplier) by PacifiCorp, a generation owner in the western states.<sup>53</sup> An initial settlement was reached. The FTC complaint found that PacifiCorp would have had the ability profitably to increase prices in its electricity sales by raising the costs of coal to two large coal-fueled generators owned by its generation competitors. Peabody was the only practical coal supplier for these plants. These generators were likely to be marginal units at some times of the year in the Western Interconnect where PacifiCorp

**APPENDIX**

**United States Electricity Statistics Excerpted from the Web Pages of the  
U.S. Department of Energy  
Energy Information Administration**

*Data for 2000 (except where noted)*

**U.S. Net Production (Generation):** 3,799,944 Million Kilowatthours

Utility: 3,015,383 Million Kilowatthours (79.4%)  
Nonutility: 784,561 Million Kilowatthours (20.6%)

**Retail Price Components**



**Electric Generating Capability (Megawatts)**

Total	811,625 Megawatts
Utility	602,377 Megawatts
Nonutility	209,248 Megawatts

<b>Number of Electric Utility Plants:</b>	2,776
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**Number of Customers**

Total	127,567,517
Residential	111,717,711
Commercial	14,349,067

### **Power Transactions**

1. On a national basis in 1999, wholesale power receipts (purchased power plus exchanges received and wheeling received) increased by 50 billion kilowatthours to reach 2,564 billion kilowatthours. Sales to ultimate consumers totaled 3,312 billion kilowatthours (including sales by retail power marketers), and 1,636 billion kilowatthours of this (49 percent) are from wholesale trade with other electric utilities (requirement and nonrequirement sales for resale). To supply electric energy in 2000, electric utilities had planned capacity resources on-hand for the summer of 766 million kilowatts and 779 million kilowatts for the winter, resulting in national capacity margins of 14.8 percent and 25.7 percent, respectively.

### **Transmission**

2. The U.S. bulk power system has evolved into three major networks (power grids), which also include smaller groupings or power pools. The major networks consist of extra-high-voltage connections between individual utilities designed to permit the transfer of electrical energy from one part of the network to another. The three networks are (1) the Eastern Interconnected System, consisting of the eastern two-thirds of the United States; (2) the Western Interconnected System, consisting primarily of the Southwest and the areas west of the Rocky Mountains; and (3) the Texas Interconnected System, consisting mainly of Texas. The Eastern and Western Interconnects are completely integrated with most of