

# ENERGY LAW JOURNAL

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Volume 28, No. 2

2007

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## RECOGNIZING THE IMPORTANCE OF DEMAND RESPONSE: THE SECOND HALF OF THE WHOLESALE ELECTRIC MARKET EQUATION

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**Synopsis:** The electric industry in the United States has experienced significant changes over the past several decades, the primary one being a shift from a system dominated by vertically-integrated utilities operating under cost-of-service regulation to one with increasing expansion of independent power producers and the potential for enhanced consumer benefits from more competitive wholesale markets. During much of that transition to date, however, the Federal Energy Regulatory Commission has focused far more on the supply side of the wholesale electric market equation than on the demand side of that equation. This article contends that the Commission has a strong legal basis for assuming jurisdiction over facilitating demand response in wholesale electric markets, and that such action on the demand side of the equation is warranted by the benefits associated with robust load participation in those markets. This article also recognizes that the states have traditionally regulated demand response and that they will continue to play an important role in cultivating its full benefits for electricity consumers. Therefore, this article further contends that enhancing coordination of federal and state initiatives offers the most promising approach to managing the jurisdictional overlap in this area.

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I. Introduction.....	391
II. Demand response is essential to the efficient functioning of wholesale electric markets.....	393
III. The Commission may and should assume jurisdiction to facilitate demand response and use of other distributed resources.....	396
A. EPCRA 2005 explicitly authorizes the Commission to promote the use of demand response and other distributed resources.....	397
B. The Commission's statutory responsibilities justify regulatory action to facilitate demand response and use of other distributed resources.....	398
1. Because demand response directly and significantly affects wholesale rates, facilitating demand response in wholesale markets is essential to the Commission ensuring that those rates are just and reasonable.....	399
a. Statutory framework and court precedent.....	399
b. Applicability to demand response.....	401
2. To the extent that demand response can be characterized as involving a wholesale sale of electric energy in interstate commerce, it would fall within the Commission's jurisdiction.....	405
3. Where demand response and other distributed resources can provide ancillary services or other products subject to the Commission's jurisdiction on a basis comparable to generators, Commission regulation is warranted to prevent undue discrimination.....	408
4. Demand response and other distributed resources are important to protecting the reliability of the interstate electric transmission system.....	410
IV. The Commission should effectively manage the overlap of federal and state jurisdiction with regard to demand response and other distributed resources.....	412
A. In facilitating demand response through regulatory action, the Commission has recognized and sought to respect the traditional role of the states.....	413
B. Preempting state laws or regulations that conflict with Commission policies on demand response and other distributed resources would raise difficult legal issues and ignore other important considerations.....	415
C. Enhancing coordination of federal and state initiatives on demand response and other distributed resources offers the most promising approach to managing the jurisdictional overlap.....	418
V. Conclusion.....	419

## I. INTRODUCTION

The electric industry in the United States has experienced significant changes over the past several decades, the primary one being a shift from a system dominated by vertically-integrated utilities operating under cost-of-service regulation to one with increasing expansion of independent power producers and the potential for robust wholesale markets and enhanced competition. An important principle underlying this industry restructuring is that greater reliance on more competitive markets will bring greater benefits to the country's electricity consumers.

Markets, in turn, rely on two sides of an equation: at a basic level, market prices result from the interaction of supply and demand. During much of the electric industry's transition to date, however, the Federal Energy Regulatory Commission (Commission) has primarily focused on the supply side of that equation, seeking to increase consumer benefits by providing open access to transmission services and reducing transmission congestion such that more generation is able to participate in the market, as well as promoting economic dispatch of generation over wider operational footprints. That focus has meant that the Commission has only recently looked to aggressively pursue robust market participation by loads, or the demand side in the wholesale electric market equation. Consequently, as noted regulatory analyst Eric Hirst observed in 2001, "Competitive wholesale markets . . . resemble the sound of one hand clapping. They are often inefficient and not fully competitive, in part because retail-customer loads do not participate in these markets."<sup>3</sup> Despite recent efforts by the Commission to incorporate demand response into wholesale electric markets, those markets remain underdeveloped, and the country's electricity consumers do not receive the full benefits of a robust marketplace.

This article contends that, as a response to the current state of wholesale electric markets, the Commission must continue to play an active role in the development of robust load participation in those markets. Section II of this article describes benefits that research suggests are likely to stem from increased use of demand response, or the modification of consumer demand in the short term that can be defined more specifically as follows:

"Changes in electric usage by end-use customers from their normal consumption patterns in response to changes in the price of electricity over time, or to incentive payments designed to induce lower electricity use at times of high wholesale market prices or when system reliability is jeopardized."<sup>4</sup>

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3. Eric Hirst & Brendan Kirby, *Retail-Load Participation in Competitive Wholesale Electricity Markets*, Jan. 2001, at v, [http://psc.state.md.us/psc/Reports/SU\\_CM\\_appendix\\_A.pdf](http://psc.state.md.us/psc/Reports/SU_CM_appendix_A.pdf) (having been prepared for the Edison Electric Institute and Project for Sustainable FERC Energy Policy) [hereinafter *Retail-Load Participation*].

4. U.S. DEPT. OF ENERGY, *BENEFITS OF DEMAND RESPONSE IN ELECTRICITY MARKETS AND RECOMMENDATIONS FOR ACHIEVING THEM* ix (2006), <http://eetd.lbl.gov/EA/EMP/reports/congress-1252d.pdf> [DOE 2006 REPORT]; FERC, *ASSESSMENT OF DEMAND RESPONSE & ADVANCED METERING: STAFF REPORT* viii (2006), <http://www.ferc.gov/legal/staff-reports/demand-response.pdf>.

Modification of consumer demand in a longer timeframe includes changes such as the installation of more energy efficient appliances and technologies.<sup>5</sup> Both demand response and such energy efficiency measures are properly classified as “distributed resources,” as is distributed generation.

Section III of this article primarily presents arguments in support of the Commission facilitating demand response through regulatory action, while also discussing some ways in which the Commission may facilitate the use of other distributed resources. These arguments draw on explicit statutory directives regarding demand response and other distributed resources, as well as responsibilities pursuant to the Federal Power Act (FPA) that the Commission cannot fulfill without playing a role in regulating those resources.<sup>6</sup> For example, the FPA confers on the Commission responsibility for ensuring that rates for wholesale sales of electricity are just and reasonable.<sup>7</sup> Because demand response directly and significantly affects those rates, it is important for the Commission to ensure that wholesale electric markets are structured to enable adequate participation by demand response providers. Similarly, given its statutory responsibility for protecting the reliability of the interstate electric transmission system, it is important for the Commission to ensure that demand response and other distributed resources are allowed to contribute toward that goal where they are technically capable of doing so.

Section IV of this article examines approaches to managing the overlap of federal and state jurisdiction that results from the Commission playing a role in regulating demand response and other distributed resources. Building on the Commission’s past efforts to respect the traditional role of the states in regulating demand response, this article suggests that rather than preempting state laws and regulations in this area, enhancing coordination of federal and state initiatives offers the most promising approach to managing this jurisdictional overlap. A recent coordination initiative jointly launched by the Commission and the National Association of Regulatory Utility Commissioners (NARUC) is advancing this goal.<sup>8</sup> In addition, the newly formed Energy Innovations Sector of the Commission will act as a liaison with state entities to better coordinate and facilitate activities related to demand response and other distributed resources at the state and federal levels. Finally, Section V of this article briefly summarizes conclusions regarding steps toward bringing the full potential benefits of demand response and other distributed resources to the country’s electricity consumers.

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5. It is noteworthy that national and state legislative bodies and regulatory bodies, as well as utility programs and tariff filings, have increasingly relied on energy efficiency as a tool to reduce system peak demand and meet capacity requirements. FERC, ASSESSMENT OF DEMAND RESPONSE & ADVANCED METERING: STAFF REPORT 3 (2007), <http://www.ferc.gov/legal/staff-reports/09-07-demand-response.pdf>.

6. See 16 U.S.C. §§ 824-824t (2000).

7. 16 U.S.C. § 824d, e (2000).

8. Information on the Demand Response Collaborative between the Commission and NARUC and its goals can be found online. NARUC, NARUC-FERC Demand Response Collaborative, <http://www.naruc.org/displaycommon.cfm?an=1&subarticlenbr=514> (last visited Sept. 23, 2007).

## II. DEMAND RESPONSE IS ESSENTIAL TO THE EFFICIENT FUNCTIONING OF WHOLESALE ELECTRIC MARKETS

Markets for electricity are composed, like other commodity markets, of varying levels of “demand” (load) and matching levels of “supply” (generation). Conventional wisdom has long held that demand for electricity varied little with price and, thus, was said to be price inelastic.<sup>9</sup> Historically vertically-integrated utilities in the United States built generation to match load. This approach required sufficient peaking capacity and reserve margins to reliably meet the highest load of the year plus a contingency for outages and other disruptive events. Very little attention was paid to the effect of load variations on electricity prices. This relative inattention was due, in part, to the fact that many utility systems had relatively high load factors, and there was not a substantial variance in loads from day to day or season to season.<sup>10</sup>

This characteristic of the electric industry changed significantly with the increasing penetration of residential air conditioning. Nationally, the presence of air conditioning in new single-family homes increased from 49% in 1973 to 89% in 2006. The trend was even more pronounced in certain regions, with the comparable figures for the Northeast reflecting an increase from 14% to 76% during the same period.<sup>11</sup>

A result of the introduction of these narrowly focused seasonal loads into most new home and small commercial construction was the advent of needle peaks in electric system loads and plummeting load factors.<sup>12</sup> These developments created the need for considerable peaking generating capacity that would be used for very few hours of the year. As a result, wholesale electric prices became much more volatile and very sensitive to weather.<sup>13</sup> These variances in wholesale prices were not (and still generally are not) immediately reflected in retail rates, leading to a disconnect between the volatile wholesale

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9. See, e.g., MARK A. BERNSTEIN & JAMES GRIFFIN, NAT'L RENEWABLE ENERGY LAB., REGIONAL DIFFERENCES IN THE PRICE-ELASTICITY OF DEMAND FOR ENERGY xi (2006), <http://www.nrel.gov/docs/fy06osti/39512.pdf>.

10. See generally RICHARD F. HIRSH, POWER LOSS: THE ORIGINS OF DEREGULATION AND RESTRUCTURING IN THE AMERICAN ELECTRIC UTILITY SYSTEM 13-14, 46 (MIT Press 2001) (1999) (discussing early 20th century development of utility business model of which an increasing load factor was an important component).

11. See U.S. CENSUS BUREAU, PRESENCE OF AIR-CONDITIONING IN NEW ONE-FAMILY HOUSES COMPLETED, <http://www.census.gov/const/C25Ann/sftotalac.pdf> (last visited Sept. 23, 2007). It should also be noted that as recently as 1997, only 22% of housing units in the Northeast had central air conditioning systems. ENERGY INFO. ADMIN., TRENDS IN RESIDENTIAL AIR-CONDITIONING UNITS FROM 1978 TO 1997 (2000), [http://www.eia.doe.gov/emeu/consumptionbriefs/recs/actrends/recs\\_ac\\_trends.html](http://www.eia.doe.gov/emeu/consumptionbriefs/recs/actrends/recs_ac_trends.html).

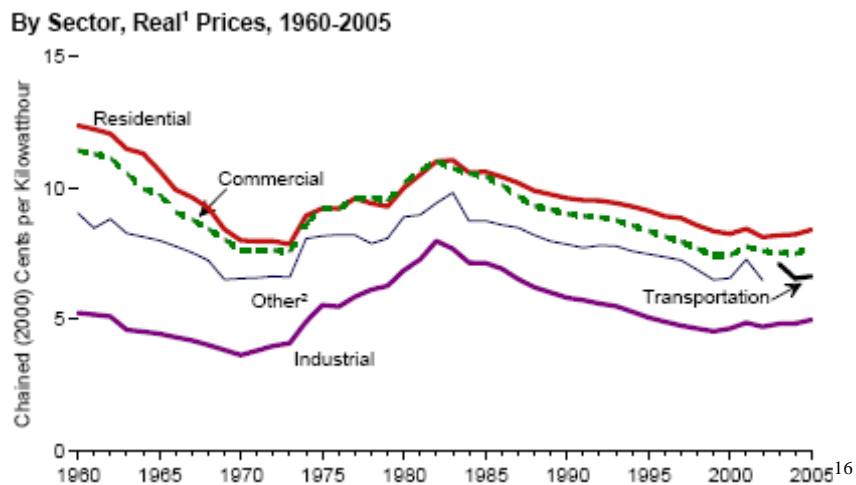
12. An extreme example of this result is the Nevada Power system in Las Vegas, Nevada, where the average utility load factor is 45%, despite a load factor in the hotel casino sector (the largest commercial load in the service territory) of 79%. The average utility load factor is driven by an extremely low residential load factor of 33% that is a function of high residential air conditioning loads that result from peak summer weather conditions. Interview with Roberto Denis, Senior Vice-President, Sierra Pacific Resources (June 8, 2007). See also Memorandum from Tom Gorin, California Energy Commission Demand Analysis Office, to Commissioner John L. Geesman and Commissioner Jim D. Boyd 3 (Oct. 4, 2005), [www.energy.ca.gov/2005\\_energypolicy/documents/2005-10-07-pm\\_hearing/2005-10-07\\_LOAD\\_FACTORS.PDF](http://www.energy.ca.gov/2005_energypolicy/documents/2005-10-07-pm_hearing/2005-10-07_LOAD_FACTORS.PDF) (stating that “where the saturation of electric heat is declining and the saturation of air conditioning continues to increase, the load factor declines.”).

13. See *Retail-Load Participation*, supra note 3, at v (stating that “[e]lectricity costs vary substantially from hour to hour, often by a factor of ten within a single day.”).

prices seen in the markets where utilities purchased some power to meet peak demands and the average retail prices paid by consumers.

In the mid 1980s and early 1990s, a number of electric utilities recognized the system cost impacts of meeting peak loads and instituted “curtailment” or “peak shaving” programs.<sup>14</sup> Among the most popular of these programs at the time were residential air conditioning cycling programs, in which the utility used a radio frequency switch to shut off participating consumers’ air conditioning units for some portion of each hour during extended peak periods. Consumers were usually paid a monthly flat fee during the peak summer months to participate in such programs. As these programs were structured, consumers did not see real time wholesale price signals, nor were consumers compensated for the full value they contributed to the system by shedding load. By the late 1990s, a number of states began to explore retail electric restructuring, and numerous utilities abandoned these load shedding programs.<sup>15</sup> Other utilities have maintained these programs and continue to operate them today.

While wholesale electric prices varied with demand, retail prices first declined and then remained relatively flat in real terms for many years after 1980. That trend in retail prices is illustrated in the following chart:



These figures on retail electric prices in real terms, however, do not reflect the price increases that consumers perceive to have occurred in the last decade. From 1997 to 2006, average retail electric rates increased in nominal terms by 31% in both states that have pursued retail electric restructuring and those that

14. See ENERGY INFO. ADMIN., U.S. ELECTRIC UTILITY DEMAND-SIDE MANAGEMENT: TRENDS AND ANALYSIS, [http://www.eia.doe.gov/cneaf/pubs\\_html/feat\\_dsm/contents.html](http://www.eia.doe.gov/cneaf/pubs_html/feat_dsm/contents.html) (last visited Sept. 23, 2007).

15. ENERGY INFO. ADMIN., ELECTRIC UTILITY DEMAND-SIDE MANAGEMENT 1999, [http://www.eia.doe.gov/cneaf/electricity/dsm99/dsm\\_sum99.html](http://www.eia.doe.gov/cneaf/electricity/dsm99/dsm_sum99.html) (last visited Sept. 23, 2007).

16. ENERGY INFO. ADMIN., FIG. 8.10: AVERAGE RETAIL PRICES OF ELECTRICITY, available at [www.eia.doe.gov/aer/pdf/pages/sec8\\_38.pdf](http://www.eia.doe.gov/aer/pdf/pages/sec8_38.pdf) (last visited Sept. 23, 2007).

have not done so.<sup>17</sup> In addition, fuel costs for electric generators escalated substantially over the same period, including a 93% increase in natural gas prices.<sup>18</sup> Particularly in states where rate freezes were instituted as part of retail electric restructuring and are now expiring, consumers are also seeing retail electric prices increasing in real terms as increased fuel and other wholesale and retail cost increases are rolled into retail rates.

This brief history highlights some of the potential benefits associated with providing consumers with price signals and opportunities to modify their demand in response to economic incentives. The Western Energy Crisis of 2000-2001 further highlighted the importance for consumers of having access to and providing demand response in wholesale markets. Consumers can have access to wholesale markets in several ways, including the ability to directly participate in wholesale tariffs of a regional transmission organization (RTO), independent system operator (ISO), or transmission provider; retail time-of-use (TOU) rates that are pegged to wholesale prices; and participation with retail aggregators in programs that bid demand response into the wholesale market. In a paper published in 2001, Steven Braithwait and Ahmad Faruqui made several important points regarding the Western Energy Crisis and demand response:

First, available empirical evidence shows that commercial and industrial customers respond to hourly prices, and that even modest amounts of demand response can lead to significant reductions in wholesale prices at times of capacity constraints. Second, hourly pricing can be implemented in California, even in the face of perceived complications from existing rate freezes. In particular, we show that *hourly real-time pricing can be made compatible with customer bill stability*, giving customers an incentive to reduce usage during high-cost periods, while limiting unpopular bill increases. Our results are based on demand response data from existing utility real-time pricing (RTP) programs in the U.S. and United Kingdom, and actual California data for summer 2000. They show that customer demand response to hourly, market-based retail prices could have generated load reductions of 1,000 to 2,000 MW, reduce summer peak prices by six to 19 percent, and produce energy cost savings ranging from \$0.3 to \$1.2 billion. They suggest that demand response would provide at least short-term relief to next summer's likely problems while other efforts are put in place to solve the longer term financial and resource issues.<sup>19</sup>

Of particular importance here is Braithwait and Faruqui's finding that "even modest amounts of demand response can lead to significant reductions in wholesale prices at times of capacity constraints."<sup>20</sup> Building on this research, many other electric system analysts, researchers, and RTOs and ISOs have reached similar conclusions. Gordon van Welie, the president and chief executive officer of ISO-New England (ISO-NE), recently estimated that reducing electric use by 5% during peak hours would save New England

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17. Johannes Pfeifenberger, G.N. Basheda, & A.C. Schumacher, *Restructuring Revisited: What We Can Learn from Retail Rate Increases in Restructured and Non-Restructured States*, PUBLIC UTILITIES FORTNIGHTLY, June 2007, at 64-65, available at LEXIS.

18. *Id.*

19. Steven Braithwait & Ahmad Faruqui, *The Choice Not to Buy: Energy Savings and Policy Alternatives for Demand Response*, PUBLIC UTILITIES FORTNIGHTLY, Mar. 15, 2001, at 48, available at LEXIS.

20. *Id.*

consumers \$580 million annually.<sup>21</sup> An even more recent study of the potential economic benefits to consumers from demand response in a selected number of states in the PJM Interconnection, L.L.C. (PJM) region found that curtailing only 3% of the super-peak load in the selected zones yielded savings approaching \$200 million per year.<sup>22</sup> In addition, a discussion paper issued in May 2007 found that if U.S. peak demand were to be reduced by 5%, the long term benefits to consumers over a twenty-year horizon would have a net present value of \$35 billion.<sup>23</sup>

These potential benefits from the incorporation of demand response into wholesale markets indicate that a considerable margin of gain is possible from accelerating such activity. The Commission's ability to promote that goal is the subject of the next section of this article.

### III. THE COMMISSION MAY AND SHOULD ASSUME JURISDICTION TO FACILITATE DEMAND RESPONSE AND USE OF OTHER DISTRIBUTED RESOURCES

Two important considerations support the Commission facilitating demand response and use of other distributed resources. First, with the enactment of the Energy Policy Act of 2005 (EPAct 2005), the Congress explicitly authorized the Commission to promote the use of demand response and other distributed resources, while also making it national policy to eliminate unnecessary barriers to demand response participation in energy, capacity, and ancillary services markets.

Second, even in the absence of explicit references to demand response and other distributed resources, several of the Commission's statutory responsibilities justify its playing a role in regulating those resources. For example, because demand response directly and significantly affects wholesale rates, facilitating demand response is essential to the Commission fulfilling its responsibility for ensuring that those rates are just and reasonable. In addition, to the extent that demand response can be characterized as involving a wholesale sale of electric energy in interstate commerce, it would fall within the Commission's jurisdiction. Also, where demand response and other distributed resources are capable of providing ancillary services or other products subject to the Commission's jurisdiction on a basis comparable to generators, Commission regulation of demand response and other distributed resources is warranted to prevent undue discrimination. Finally, the Commission plays a role in protecting the reliability of the interstate electric transmission system, and demand response and other distributed resources are important to that task.

Despite these considerations, some observers have argued that the Commission has no jurisdiction over demand response and other distributed

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21. Gordon van Welie, President and CEO of ISO-NE, Inc., Address to the Annual Demand Response Summit (Apr. 27, 2006); ISO-NE, ELECTRICITY COSTS WHITE PAPER (2006), [http://www.iso-ne.com/pubs/whtpprs/elec\\_costs\\_wht\\_ppr.pdf](http://www.iso-ne.com/pubs/whtpprs/elec_costs_wht_ppr.pdf).

22. THE BRATTLE GROUP, QUANTIFYING DEMAND RESPONSE BENEFITS IN PJM 2-4 (2007), <http://www.energetics.com/madri/pdfs/BrattleGroupReport.pdf> (prepared for PJM and the Mid-Atlantic Distributed Resources Initiative).

23. Ahmad Faruqi, et al., THE BRATTLE GROUP, THE POWER OF FIVE PERCENT: HOW DYNAMIC PRICING CAN SAVE \$35 BILLION IN ELECTRICITY COSTS 5 (2007), [http://www.brattle.com/\\_documents/UploadLibrary/Upload574.pdf](http://www.brattle.com/_documents/UploadLibrary/Upload574.pdf).



resources. Such observers typically contend that these resources “fall squarely within the tradition and statutory jurisdiction of the states”<sup>24</sup> or that demand response involves “a retail sales transaction or retail energy demand transaction over which only the states have jurisdiction.”<sup>25</sup> Proponents of this position also frequently contend that the FPA does not convey authority to the Commission in these areas.<sup>26</sup> While these arguments appropriately recognize state interests regarding demand response and other distributed resources, the considerations discussed in this section belie the further claim that those interests preclude Commission action in this area.

*A. EAct 2005 explicitly authorizes the Commission to promote the use of demand response and other distributed resources*

The U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) has stated that “[a]s a federal agency, FERC is a ‘creature of statute,’ having ‘no constitutional or common law existence or authority but *only* those authorities conferred upon it by Congress’ . . . Thus if there is no statute conferring authority, FERC has none.”<sup>27</sup> The court’s statement emphasizes that the Commission’s actions must be solidly grounded in its authorizing statutes.

The Commission’s efforts to facilitate demand response and use of other distributed resources satisfy that standard. Notably, the EAct 2005 explicitly authorizes the Commission to encourage demand response and other distributed resources. Specifically, section 1223 of the EAct 2005 states that in carrying out the FPA and the Public Utility Regulatory Policies Act of 1978 (PURPA), “the Commission shall encourage, as appropriate, the deployment of advanced transmission technologies.”<sup>28</sup> The same section defines “advanced transmission technology” to include eighteen technologies “that increase[] the capacity, efficiency, or reliability, of an existing or new transmission facility,” as well as “any other technologies the Commission considers appropriate.”<sup>29</sup> Several of the technologies identified in EAct section 1223 directly implicate demand response and other distributed resources, including: (1) controllable load; (2) distributed generation (including photovoltaic solar technology, fuel cells, and microturbines); and (3) energy storage devices (including pumped hydro, compressed air, superconducting magnetic energy storage, flywheels, and batteries).<sup>30</sup> Thus, EAct section 1223 is a specific Congressional directive for the Commission to promote demand response and other distributed resources as it fulfills its responsibilities under the FPA and PURPA.

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24. See, e.g., Comments of the Vermont Public Service Board, *Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*, Docket No. RM01-12-000, at 13 (F.E.R.C. Feb. 28, 2003).

25. See, e.g., *PJM Interconnection, L.L.C.*, 95 F.E.R.C. ¶ 61,306, at p. 62,043 (2001).

26. See, e.g., Comments of the Florida Public Service Commission, *Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design*, Docket No. RM01-12-000, at 12-13 (F.E.R.C. Oct. 28, 2002).

27. *Atlantic City Elec. Co. v. FERC*, 295 F.3d 1, 8 (D.C. Cir. 2002) (citing *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001); *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 374 (1986)).

28. Energy Policy Act of 2005, Pub. L. No. 109-58, § 1223, 119 Stat. 594, 954 (2005).

29. *Id.*

30. Energy Policy Act of 2005 § 1223.

The Congress reinforced this directive in section 1252(f) of the EAct 2005, entitled “Federal Encouragement of Demand Response Devices,” which states:

It is the policy of the United States that time-based pricing and other forms of demand response, whereby electricity customers are provided with electricity price signals and the ability to benefit by responding to them, shall be encouraged, the deployment of such technology and devices that enable electricity customers to participate in such pricing and demand response systems shall be facilitated, and unnecessary barriers to demand response participation in energy, capacity and ancillary service markets shall be eliminated. It is further the policy of the United States that the benefits of such demand response that accrue to those not deploying such technology and devices,<sup>31</sup> but who are part of the same regional electricity entity, shall be recognized.

With this provision, the Congress established a national policy that favors the elimination of unnecessary barriers to demand response participation in energy, capacity, and ancillary services markets. EAct section 1252(f) does not assign the Commission (or any other agency) the task of implementing that national policy. Nonetheless, in light of the Commission’s jurisdiction over and extensive work to promote energy, capacity, and ancillary services markets in the years leading up to the enactment of the EAct 2005,<sup>32</sup> there is good reason to believe that the Congress envisioned the Commission as one agency that would align its efforts with this national policy.

Consistent with that reading of EAct section 1252(f), the U.S. Department of Energy (DOE) has interpreted the provision as calling on the Commission to encourage demand response. In a February 2006 report to the Congress, the DOE referenced this provision and recognized the Commission’s efforts to encourage the increased use of demand response in wholesale markets.<sup>33</sup> The DOE concluded that the Commission “should continue to encourage demand response in the wholesale markets it oversees,” such as by encouraging expanded efforts by RTOs and ISOs to: (1) find ways for customers to participate in spot, day-ahead, and ancillary service markets; (2) determine whether current or proposed reliability rules need to be changed to accommodate demand response; and (3) support greater levels of information exchange and collaboration on demand response.<sup>34</sup> Taken together, EAct section 1223 and EAct section 1252(f) put in place an explicit statutory foundation for the Commission’s efforts to facilitate demand response and use of other distributed resources.

*B. The Commission’s statutory responsibilities justify regulatory action to facilitate demand response and use of other distributed resources*

Even absent the explicit authorization in the EAct 2005 for the Commission to facilitate demand response and use of other distributed resources,

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31. *Id.* § 1252(f).

32. *See, e.g., Midwest Indep. Transmission Sys. Operator, Inc.*, 108 F.E.R.C. ¶ 61,163 (2004); *Devon Power LLC*, 107 F.E.R.C. ¶ 61,240 (2004); *PJM Interconnection, L.L.C.*, 101 F.E.R.C. ¶ 61,115 (2002).

33. DOE 2006 REPORT, *supra* note 3, at 59 (stating that “[s]ections 1252(d), (e), and (f) of EACT contain provisions for DOE, FERC, and other federal agencies to encourage demand response. . . . In wholesale markets, FERC has been encouraging the increased use of demand response. For example, FERC and the ISOs/RTOs have been addressing the integration and use of demand response in regions with organized spot markets, and the potential impact of demand response on the market power of suppliers.”).

34. *Id.* at 60.

several of the Commission's statutory responsibilities justify its playing a role in regulating those resources. Four such statutory responsibilities are discussed, in turn, below.

1. Because demand response directly and significantly affects wholesale rates, facilitating demand response in wholesale markets is essential to the Commission ensuring that those rates are just and reasonable

a. Statutory framework and court precedent

The Commission draws substantial authority from the FPA. For example, FPA section 201(b)(1) confers jurisdiction on the Commission over the "transmission of electric energy in interstate commerce and [sales] of electric energy at wholesale in interstate commerce."<sup>35</sup> FPA section 205(a) builds on that assignment of jurisdiction, stating:

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.<sup>36</sup>

FPA section 206(a) further provides for the Commission to play an active role in ensuring that these statutory standards are satisfied, stating:

Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affected such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice,<sup>37</sup> or contract to be thereafter observed and in force, and shall fix the same by order.

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35. 16 U.S.C. § 824(b)(1) (2000). FPA section 201(b) also establishes certain limits on the Commission's jurisdiction. The provision states:

The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but except as provided in paragraph (2) shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.

*Id.*

36. 16 U.S.C. § 824d(a) (2000). Moreover, FPA section 205(b) prohibits undue discrimination in matters subject to the Commission's jurisdiction under FPA section 201(b), stating:

No public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service.

*Id.* § 824d(b).

37. 16 U.S.C. § 824e(a) (2000).

Thus, the FPA confers on the Commission the responsibility for ensuring that rates and charges for wholesale sales of electric energy—as well as any rule, regulation, practice, or contract affecting those rates and charges—are just and reasonable.

The courts have reviewed this statutory framework and endorsed the Commission's assertion of jurisdiction over "practices" that directly and significantly affect wholesale rates. For example, in *Mississippi Industries v. FERC*,<sup>38</sup> the Commission had altered the allocation of capacity and costs of a nuclear generation plant among operating companies of an integrated utility system. Petitioners asserted that, in allocating the cost and capacity of the nuclear plant, the Commission exceeded its jurisdiction and strayed into an area subject solely to state regulation. The D.C. Circuit rejected the petitioners' claim, finding that the Commission's jurisdiction "under such circumstances is unquestionable" because the allocation of the nuclear plant's costs and capacity "does not set a sales price, but does directly affect costs and, consequently, wholesale rates."<sup>39</sup> Emphasizing this "critical point," the court also stated that because the allocation of the nuclear plant's capacity and costs "significantly affects the wholesale rates at which the operating companies exchange energy . . . that allocation is plainly within Commission jurisdiction."<sup>40</sup> Thus, the court affirmed the Commission's assertion of jurisdiction over the allocation of the nuclear plant's capacity and costs because of the nexus between that allocation and the justness and reasonableness of Commission-jurisdictional wholesale rates.

Similarly, in *Municipalities of Groton v. FERC*,<sup>41</sup> the D.C. Circuit upheld the Commission's authority to review section 9.4(d) of the New England Power Pool Agreement, which included a deficiency charge for each participant in the agreement whose prescribed level of generating capacity fell by more than 1% below the set level. In rejecting petitioners' argument that the Commission lacked jurisdiction over the deficiency charge because it was designed as an incentive, the court found that that "the Commission's inclusive jurisdictional mandate . . . 'with respect to' jurisdictional transmissions, or 'affecting' such transmissions or services cannot be parsed so nicely."<sup>42</sup> The court then concluded: "It is sufficient for jurisdictional purposes that the deficiency charge affects the fee that a participant pays for power and reserve service, irrespective of the objective underlying that charge. This . . . is well within the Commission's authority as delineated in other court opinions."<sup>43</sup>

The courts have also rejected some of the Commission's attempts to assert jurisdiction based on practices that affect wholesale rates. In *California Independent System Operator v. FERC*,<sup>44</sup> for example, the D.C. Circuit delineated the scope of this component of the Commission's jurisdiction, stating:

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38. *Mississippi Indus. v. FERC*, 808 F.2d 1525 (D.C. Cir. 1987), *vacated in part on other grounds*, 822 F.2d 1103 (D.C. Cir. 1987).

39. *Id.* at 1542 (citing *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953 (1986)).

40. *Mississippi Indus.*, 808 F.2d at 1542 (citing *South Dakota Pub. Utils. Comm'n v. FERC*, 690 F.2d 674 (8th Cir. 1982)).

41. *Municipalities of Groton v. FERC*, 587 F.2d 1296 (D.C. Cir. 1978).

42. *Id.* at 1302.

43. *Municipalities of Groton*, 587 F.2d at 1302 (citing *FPC v. Conway Corp.*, 426 U.S. 271 (1976)).

44. *California Indep. Sys. Operator v. FERC*, 372 F.3d 395 (D.C. Cir. 2004).

[W]e hold today that section 206's empowering of the Commission to assess the justness and reasonableness of practices affecting rates of electric utilities is limited to those methods or ways of doing things on the part of the utility that directly affect the rate or are closely related to the rate, not all those remote things beyond the rate structure that might in some sense indirectly or ultimately do so.<sup>45</sup>

In its orders underlying *CAISO*, the Commission had directed the California Independent System Operator (CAISO) to replace its governing board, chosen according to a method dictated by a California statute, with a new board chosen through a method dictated by the Commission.<sup>46</sup> As described by the D.C. Circuit, the Commission based those orders on its "claimed authority to regulate all actions or activities of public utilities including the personnel and structure of its corporate governance under the rubric of 'practices.'"<sup>47</sup> The court, however, found that the implications of this jurisdictional claim "would be staggering" and, applying the holding quoted above, concluded that the Commission lacked authority "to reform and regulate the governing body of a public utility under the theory that corporate governance constitutes a 'practice' for ratemaking authority purposes."<sup>48</sup>

#### b. Applicability to demand response

The Commission has stated recently that maintaining adequate resources has a direct and significant effect on jurisdictional rates and services and, for that reason, falls within the Commission's jurisdiction under the FPA, consistent with *Mississippi Industries* and *Groton*.<sup>49</sup> This same jurisdictional rationale concerning practices that directly and significantly affect wholesale rates applies with even greater force to demand response.

It is unsurprising that demand response directly and significantly affects wholesale rates. Indeed, that result illustrates a fundamental principle of economics: markets require both an active supply side and an active demand side to function efficiently.<sup>50</sup> The DOE has recognized the importance of a robust demand side to wholesale electricity markets, finding that demand response is "a vital ingredient for the efficient operation of wholesale electricity markets" because it "is a potent antidote against the exercise of market power" and will help ensure that spot markets clear at efficient prices.<sup>51</sup> Elaborating on the latter point, the DOE has stated that "[l]ower demand in response to high prices

45. *Id.* at 403.

46. *California Indep. Sys. Operator*, 372 F.3d at 396.

47. *Id.* at 403.

48. *California Indep. Sys. Operator*, 372 F.3d at 403-04.

49. See, e.g., *California Indep. Sys. Operator Corp.*, 119 F.E.R.C. ¶ 61,076, at P 540-556 (2007); *ISO New England, Inc.*, 119 F.E.R.C. ¶ 61,161, at P 18-30 (2007).

50. See VERNON SMITH & LYNNE KIESLING, A MARKET-BASED MODEL FOR ISO-SPONSORED DEMAND RESPONSE PROGRAMS 1-2 (2005), [http://faculty.wcas.northwestern.edu/~lki851/CAEM\\_DEFG\\_Smith\\_Kiesling\\_Final.pdf](http://faculty.wcas.northwestern.edu/~lki851/CAEM_DEFG_Smith_Kiesling_Final.pdf) (stating that "a single-sided market with passive, inelastic demand, tends to have higher prices than a market with active demand and supply—a double-sided market . . . . Active bidding communicates more precise information about the preferences of consumers into both retail and wholesale markets, integrating them and consequently leading to better decisions and more efficient resource allocation.").

51. U.S. DEP'T OF ENERGY, REPORT TO CONGRESS: IMPACTS OF THE FEDERAL ENERGY REGULATORY COMMISSION'S PROPOSAL FOR STANDARD MARKET DESIGN 65-68 (2003), <http://www.energy.gov/media/DOES0138SMDfinal.pdf>.

(particularly market clearing prices in an organized regional spot market) reduces the costs of electricity production and holds down prices in electricity spot markets.”<sup>52</sup>

Diverse participants in wholesale electricity markets have reached similar conclusions about the effect of demand response on rates in those markets. A report published by the Edison Electric Institute in 2002 states:

The near-universal sentiment that encouraging demand response, or price-responsive load, on the part of retail customers is a necessary element of effective wholesale power market design is undeniable. The current lack of demand response leads to a number of problems in otherwise competitive wholesale markets, including wholesale price spikes, reliability problems, possible increased opportunity to exercise market power, and a perceived need for excessive reserve capacity.<sup>53</sup>

Addressing the same issue in 2005, a coalition of industrial customers stated in a filing to the Commission that “demand response is clearly an essential feature of ‘making markets work.’”<sup>54</sup>

The Commission has also observed on numerous occasions that demand response has a direct and significant effect on wholesale rates. For example, in May 2001, the Commission accepted a proposal made by PJM to implement a Load Response Program (LRP). The Commission found that “the current lack of meaningful demand side response is a flaw in the markets operated by PJM which, if not corrected, could lead to dysfunction in those markets . . . .”<sup>55</sup> The Commission also explained how PJM’s efforts to incorporate demand response into its wholesale markets would, in part, address that market flaw:

Price-responsive demand is a key part of a well-functioning market that would mitigate price volatility and enhance reliability in the face of supply shortages. In a well-functioning, competitive electricity market, high prices are a signal for buyers to conserve and for sellers to expand output. The market would thus allocate scarce energy and capacity to those who valued it most and assure that the load was served at least cost . . . . PJM’s Load Response Program will enable end users (who are, after all, the ultimate beneficiaries of a well-functioning electricity market) to be aware of prices and respond to them in an economically meaningful way.<sup>56</sup>

52. DOE 2006 Report, *supra* note 4.

53. STEVEN BRAITHWAIT & KELLY EAKIN, THE ROLE OF DEMAND RESPONSE IN ELECTRIC POWER MARKET DESIGN 2 (2002), [http://www.eei.org/industry\\_issues/retail\\_services\\_and\\_delivery/wise\\_energy\\_use/demand\\_response/demandresponserole.pdf](http://www.eei.org/industry_issues/retail_services_and_delivery/wise_energy_use/demand_response/demandresponserole.pdf) (prepared for the Edison Electric Institute).

54. Reply of the PJM Industrial Customer Coalition, *PJM Interconnection, L.L.C.*, Docket No. EL05-93-000, at 11 (June 10, 2005). Many other market observers have made similar comments. For example, nine former members of the Commission recently stated that “[d]emand response saves customers money and promotes conservation and energy efficiency.” Open letter from Vicky A. Bailey, Linda Breathitt, Nora Mead Brownell, James J. Hoecker, Jerry J. Langdon, William L. Massey, Elizabeth Anne Moler, Donald F. Santa, and Pat Wood, III to Policy Makers *supra* 2 (2007), [www.appanet.org/files/PDFs/FormerCommissionersLetter53107.pdf](http://www.appanet.org/files/PDFs/FormerCommissionersLetter53107.pdf). See also *supra* Part II; MARKET MONITORING UNIT, PJM INTERCONNECTION, 2006 STATE OF THE MARKET REPORT VOL. 2 89 (2007), <http://www2.pjm.com/markets/market-monitor/downloads/mmu-reports/2006-som-volume-ii.pdf> (stating that “[m]arkets require both a supply side and a demand side to function effectively. The demand side of wholesale electricity markets is underdeveloped. It is widely recognized that wholesale electricity markets will work better when a significant level of potential demand-side response is available in the market.”).

55. *PJM Interconnection, L.L.C.*, 95 F.E.R.C. ¶ 61,306, at p. 62,043 (2001).

56. *Id.* at 62,042-62,043 (citing *Removing Obstacles to Increased Electric Generation and Natural Gas Supply in the Western United States*, 94 F.E.R.C. ¶ 61,272, at p. 91,972 (2001) [hereinafter *Removing*]).

Recognizing this “economically meaningful” effect that demand response would have on wholesale rates, the Commission concluded that “[i]t would be unreasonable to allow a market structure leading to ‘extreme’ prices to remain in place . . . .”<sup>57</sup> The Commission further stated that it was appropriate for PJM to “act[] prospectively to better ensure just and reasonable rates, rather than waiting for supply shortages to develop and prices to spike.”<sup>58</sup>

A few weeks later, the Commission discussed the markets operated by the CAISO and elaborated on the ways in which demand response affects wholesale rates. The Commission stated:

A working demand response program puts downward pressure on price, because suppliers have additional incentives to keep bids close to their marginal production costs and high supply bids are more likely to reduce the bidder’s energy sales . . . . Demand-side price-responsive bids will also help to allocate scarce supplies efficiently. Indeed, without demand-side price responsiveness, there can be no market mechanism for ensuring that scarce supplies are allocated to the highest valued uses during shortages.<sup>59</sup>

Similarly, in a December 2002 order that highlighted the potential of demand response in New England, among other issues, the Commission found that “measures that facilitate a robust demand response are essential to the success of competitive wholesale markets.”<sup>60</sup> Based on that finding, the Commission further stated, “As markets mature in other regions, the Commission will insist on similar measures in all regional markets.”<sup>61</sup>

In June 2007, the Commission discussed the effect of demand response on wholesale rates in greater detail as it launched a rulemaking proceeding intended to improve the operation of organized wholesale electric markets.<sup>62</sup> Observing that “demand response can help reduce wholesale prices and wholesale price volatility,” the Commission presented four proposals “to ensure that demand resources may participate directly in the energy and ancillary services markets on a comparable basis to supply resources” and also encouraged comments on other mechanisms that would promote that goal.<sup>63</sup>

All of these findings support the Commission’s ability to take regulatory action to facilitate demand response in wholesale markets based on its responsibility under the FPA to ensure the justness and reasonableness of practices that affect rates and charges for wholesale sales of electric energy. The Commission has not specifically cited *Mississippi Industries* and *Groton* in support of its efforts to facilitate demand response, but doing so would be consistent with those cases. Moreover, this basis for Commission action is

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*Obstacles I*; *San Diego Gas and Elec. Co. v. Sellers of Energy and Ancillary Serv.*, 95 F.E.R.C. 61,115, at p. 61,355 (2001)).

57. *PJM Interconnection, L.L.C.*, *supra* note 55, at p. 62,044.

58. *Id.*

59. *San Diego Gas and Elec. Co. v. Sellers of Energy and Ancillary Serv.*, 95 F.E.R.C. ¶ 61,418, at p. 62,555 (2001) (citing *Removing Obstacles I*, *supra* note 56, at 61,972-73).

60. *New England Power Pool*, 101 F.E.R.C. ¶ 61,344, at PP 46-47 (2002).

61. *Id.* at P 46.

62. Advance Notice of Proposed Rulemaking, *Wholesale Competition in Regions with Organized Electric Markets*, F.E.R.C. STATS. & REGS. ¶ 32,617, 72 Fed. Reg. 36,276 (2007) [hereinafter Competition ANOPR].

63. *Id.* at PP 37, 57-58.

consistent with *CAISO*, as the Commission and numerous market observers and participants have found, as discussed above, that demand response directly affects wholesale electric rates, rather than merely having a remote or indirect effect on those rates. Therefore, in contrast to the corporate governance structure at issue in *CAISO*, demand response in wholesale markets is a practice affecting rates that the Commission may play a role in regulating.<sup>64</sup>

Critics of this argument would likely express concern about a “slippery slope.”<sup>65</sup> Such criticism would contend that the Commission cannot use these grounds to justify regulatory action on demand response because many activities affect jurisdictional rates and accepting this argument would give the Commission “limitless” jurisdiction.<sup>66</sup> This criticism would be overstated, however, because the relevant case law addresses concerns about overreaching jurisdictional claims. *CAISO* holds that “practices” under the FPA must “directly affect” or be “closely related to” wholesale rates, and *Mississippi Industries* similarly holds that the Commission may assert jurisdiction over a practice that “directly” and “significantly” affects wholesale rates. These requirements ensure that the Commission’s jurisdiction is not limitless. For the reasons discussed above, Commission actions to facilitate demand response in wholesale markets comfortably satisfy the requirement for a direct and significant effect on wholesale rates. That same requirement provides an adequate safeguard against overreaching if the Commission was to apply this rationale and attempt to assert jurisdiction over a practice that was only tangentially related to jurisdictional rates.

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64. The D.C. Circuit’s statement in *California Independent System Operator* that “practices affecting rates” under the FPA are limited to “methods or ways of doing things on the part of the utility” does not preclude the Commission from regulating demand response on the grounds discussed above. *California Indep. Sys. Operator v. FERC*, 372 F.3d 395, 403 (D.C. Cir. 2004). The court’s “on the part of the utility” language is dicta in that the case at hand involved the actions of a utility (*CAISO*), and the court was not presented with non-utility actions that “directly affect” or are “closely related to” wholesale rates. In addition, at least in regions where RTOs or ISOs administer wholesale energy, capacity, and/or ancillary services markets, those entities are public utilities and their treatment of demand response is appropriately listed among “methods or ways of doing things on the part of the utility that directly affect . . . or are closely related to” wholesale rates. The Commission has made statements along this line, asserting jurisdiction over demand response in PJM on the grounds that: (1) The LRP is part of PJM’s attempt to correct a dysfunction in its markets; (2) PJM’s markets are within the Commission’s jurisdiction; and (3) PJM’s LRP is thus within the Commission’s jurisdiction, as well. *PJM Interconnection, L.L.C.*, 95 F.E.R.C. ¶ 61,306, at p. 62,043 (2001); *PJM Interconnection, L.L.C.*, 99 F.E.R.C. ¶ 61,139, at p. 61,573 (2002). While these statements tie the assertion of Commission jurisdiction to a dysfunction in a wholesale market, the Commission did not draw the more specific link to its responsibility under the FPA to ensure the justness and reasonableness of practices affecting rates and charges for wholesale sales of electric energy.

65. See, e.g., *Gonzalez v. O Centro Espirita Beneficente Uniao do Vegetal*, 546 U.S. 418, 435-36 (2006) (stating that “Here the Government’s argument for uniformity is different; it rests not so much on the particular statutory program at issue as on slippery-slope concerns that could be invoked in response to any RFRA claim for an exception to a generally applicable law. The Government’s argument echoes the classic rejoinder of bureaucrats throughout history: If I make an exception for you, I’ll have to make one for everybody, so no exceptions.”).

66. Cf. *California Indep. Sys. Operator Corp., order on reh’g*, 119 F.E.R.C. ¶ 61,076 at P 552 (2007) (noting Bay Area Municipals’ argument that “a practice cannot become jurisdictional simply because it ‘affects’ jurisdictional rates and services because, otherwise, the Commission would have ‘limitless’ jurisdiction.”).



2. To the extent that demand response can be characterized as involving a wholesale sale of electric energy in interstate commerce, it would fall within the Commission's jurisdiction.

As discussed above, FPA section 201(b)(1) confers jurisdiction on the Commission over sales of electric energy at wholesale in interstate commerce.<sup>67</sup> Therefore, to the extent that demand response can be characterized as involving such a wholesale sale of electric energy, it would fall within the Commission's jurisdiction under the FPA. Such a characterization provides a basis for jurisdiction that is distinct from the previously discussed argument, under which the Commission may facilitate demand response in wholesale markets because demand response directly and significantly affects wholesale rates.

The characterization of demand response as involving a wholesale sale supported one of the Commission's initial actions in this area. In the midst of the Western Energy Crisis of 2000-2001, the Commission sought to "stimulate" demand response in the U.S. portion of the Western Interconnection as "a short-term and cost-effective means to provide additional resources during times of scarcity."<sup>68</sup> Among other steps, the Commission stated that it would "allow . . . retail customers, as permitted by state laws and regulations, and wholesale customers to reduce consumption for the purpose of reselling their load reduction at wholesale."<sup>69</sup> The Commission also stated that such "transactions are considered wholesale when they involve the sale for resale of energy that would ordinarily be consumed by the reseller."<sup>70</sup>

In response to a request for clarification on this issue, the Commission elaborated on this rationale for playing a role in regulating demand response. The Commission stated:

Transactions involving purchases of demand reduction are considered wholesale when they involve the sale for resale of energy that would ordinarily be consumed by the retail customer. We recognize that there is a fine line separating state and federal jurisdiction where a retail customer receives compensation for a load reduction. Where a supplier directly compensates its retail customer for load reduction, state jurisdiction is indicated. Where there are third parties involved, particularly where the transaction is tied to markets within our jurisdiction, then load reduction transactions where the seller is a public utility would fall within our jurisdiction.<sup>71</sup>

The Commission elaborated further on this rationale the following year. Addressing a challenge to a proposed extension of the PJM LRP, the Commission stated that it "may deem a load reduction arrangement to involve two separate and independent transactions:" the first involving the sale of power by an LSE to a retail customer, and the second involving that customer's sale of

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67. 16 U.S.C. § 824(b)(1) (2000). FPA section 201(d) further defines a "sale of electric energy at wholesale" to mean "a sale of electric energy to any person for resale." *Id.* § 824(d).

68. *Removing Obstacles I*, *supra* note 56, at pp. 61,967 n.1, 61,972.

69. *Id.* at p. 61,972.

70. *Removing Obstacles I*, *supra* note 56, at p. 61,972.

71. *Removing Obstacles to Increased Electric Generation and Natural Gas Supply in the Western United States*, 96 F.E.R.C. ¶ 61,155, at p. 61,679 (2001) [hereinafter *Removing Obstacles III*] (citing *Removing Obstacles I*, *supra* note 56, at p. 61,972; *PJM Interconnection, L.L.C.*, *supra* note 55, at 62,043).

power back to an ISO/RTO and the LSE.<sup>72</sup> The Commission explained that it would play a role in regulating only the latter transaction, stating:

[T]he first of these two transactions . . . would not be considered FERC-jurisdictional. We consider the second transaction . . . however, to be within our jurisdiction. In effect, the end user is “selling” the energy that it could otherwise purchase to another party (whether an LSE or otherwise) for payment or credit, and the LSE or other purchaser will then resell that energy to other entities.<sup>73</sup>

Thus, on several occasions the Commission has found that it may assume jurisdiction to regulate demand response because demand response involves a wholesale sale of energy. Moreover, the Commission has extended that rationale not only to transactions where the seller is a public utility, but also to transactions in which the sale in question is made by an “end user”.

A number of parties have questioned this rationale for Commission regulation of demand response. During the Western Energy Crisis of 2000-2001, the National Rural Electric Cooperative Association (NRECA) and the American Public Power Association (APPA) argued that the Commission would overreach if it “describe[d] pure load reduction agreements as sales of energy at wholesale.”<sup>74</sup> The NRECA and APPA stated that such transactions should not be subject to the Commission’s jurisdiction because they involve neither “energy” nor “contract rights to a defined [quota] of energy” changing hands.<sup>75</sup> In addition, the NRECA and APPA expressed concern that this jurisdictional rationale would “impose unnecessary costs and disincentives on load reduction programs”<sup>76</sup> by classifying all customers participating in such programs as “public utilities subject to the full panoply of Commission jurisdiction under the Federal Power Act,” including substantial filing requirements.<sup>77</sup>

In a 2005 proceeding that involved a complaint about access to the PJM LRP, both sides questioned this rationale for Commission regulation of demand response. While stopping short of challenging the Commission’s regulation of the PJM LRP, American Electric Power Service Corporation (AEP) stated that the Commission’s rationale “certainly could be debated” because it “requires one to accept that, an end-use customer can ‘sell’ energy that the customer didn’t produce (and in fact wasn’t produced by anyone), and has no title to under prevailing law.”<sup>78</sup> The PJM Industrial Customer Coalition (PJM ICC), which filed the underlying complaint, argued that the Commission possesses

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72. *PJM Interconnection, L.L.C.*, 99 F.E.R.C. ¶ 61,139, at p. 61,573 (2002) (citing *New York Indep. Sys. Operator*, 98 F.E.R.C. ¶ 61,268, at p. 62,041 (2002)).

73. *Id.*

74. Comments, Motion to Intervene, and Petition for Rehearing, *Removing Obstacles to Increased Electric Generation and Natural Gas Supply in the Western United States*, Docket No. EL01-47-001, at 14 (F.E.R.C. Mar. 30, 2001) [hereinafter Motion to Intervene].

75. *Id.* By contrast, the NRECA and APPA supported applying this jurisdictional rationale to “those customers that have and sell a contract right to a fixed amount of power” because “the sale of the right is equivalent to the sale of energy itself,” and, therefore, these customers “are selling energy at wholesale in interstate commerce.” Motion to Intervene, *supra* note 74.

76. *Id.* at 14-15.

77. Motion to Intervene, *supra* note 74, at 15.

78. American Electric Power Service Corporation’s Answer and Motion to Dismiss Complaint, *PJM Indus. Customer Coal. v. PJM Interconnection, L.L.C.*, Docket No. EL05-93-000, at 5 (F.E.R.C. May 19, 2005) [hereinafter Answer and Motion to Dismiss Complaint].

jurisdiction over demand response in general and the PJM LRP in particular.<sup>79</sup> However, the PJM ICC did not make characterizing demand response as a wholesale sale part of its argument for Commission jurisdiction. The PJM ICC stated that demand response should be characterized instead as “involving compensation in exchange for a reduction in demand, consumption, or load.”<sup>80</sup> Based on that characterization, the PJM ICC stated that PJM LRP participants “do not engage in sales for resale of electric energy” that would trigger Commission jurisdiction over wholesale sales, nor would the participation of PJM ICC members in the PJM LRP violate state tariffs that prohibit the resale of electricity by retail customers, as AEP had contended.<sup>81</sup>

As reflected in these parties’ concerns, several issues arise from basing Commission regulation of demand response on the characterization of demand response as involving a wholesale sale of energy. First, this characterization implies that in order for the Commission to facilitate demand response, a consumer engaged in demand response must hold title to a specific amount of energy (or an equivalent contract right) that the consumer is in a position to sell for purposes of a further resale. The complaint proceeding discussed immediately above, however, indicates that at least some consumers are not in that position, yet are interested in and capable of providing demand response. Thus, at least some potential providers of demand response could not benefit from Commission action based on this rationale.

Second, if demand response providers are making wholesale sales of energy, the question arises whether they are eligible to do so at market-based rates. The Commission has twice answered that question in the affirmative. When the Commission sought to stimulate demand response in the U.S. portion of the Western Interconnection during the Western Energy Crisis of 2000-2001 and based its action on the characterization of demand response as involving a wholesale sale, the Commission also “grant[ed] a blanket authorization to allow [those] sales at market-based rates.”<sup>82</sup> The Commission later granted the same blanket authorization to participants in the demand response programs operated by the New York Independent System Operator, Inc. (NYISO), stating that the authorization was “a reasonable means to facilitate these much needed programs since it reduces regulatory uncertainty and the regulatory burden for participants in these programs.”<sup>83</sup> It is worth noting that this issue stems from the characterization of demand response as a wholesale sale, and that other grounds

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79. Reply of the PJM Industrial Customer Coalition, *PJM Interconnection, L.L.C.*, Docket No. EL05-93-000, at 7-15 (F.E.R.C. June 10, 2005) [hereinafter PJM ICC Reply].

80. *Id.* at 5.

81. PJM ICC Reply, *supra* note 79. Responding to AEP’s statement about holding title to energy, the PJM ICC further stated:

Title refers to the “union of all elements (as ownership, possession, and custody) constituting *the legal right to control and dispose of property . . .*” If, as AEP asserts, its customers do not take title to energy or capacity under its bundled retail tariffs, then they have no legal right to “dispose of” such energy. In the absence of the legal right to dispose of energy, retail customers that participate in the PJM LRPs could not transact a “sale for resale” as AEP alleges, nor could they contravene state prohibitions on sales for resale.

*Id.* at 4-5 (citing BLACK’S LAW DICTIONARY 1493 (7th ed. 1999)).

82. *Removing Obstacles I*, *supra* note 56, at p. 61,972.

83. *New York Indep. Sys. Operator, Inc.*, 98 F.E.R.C. ¶ 61,268, at p. 62,041 (2002).

for Commission action to facilitate demand response do not present this complication.

3. Where demand response and other distributed resources can provide ancillary services or other products subject to the Commission's jurisdiction on a basis comparable to generators, Commission regulation is warranted to prevent undue discrimination

To fulfill its responsibilities under FPA sections 205 and 206, the Commission must ensure that, with respect to transmission and wholesale sales of electric energy in interstate commerce, no person is subject to undue prejudice or disadvantage. The Commission also must determine whether any rule, regulation, practice, or contract affecting rates for such transmissions or wholesale sales is unduly discriminatory or preferential.<sup>84</sup>

The Commission has acted in several major rulemaking proceedings to fulfill these statutory responsibilities. For example, "the legal and policy cornerstone" of the Commission's landmark Order No. 888 was to remedy "undue discrimination in access to the monopoly owned transmission wires that control whether and to whom electricity can be transported in interstate commerce."<sup>85</sup> Toward that end, the Commission required that the open access transmission tariffs (OATT) to be filed pursuant to Order No. 888 must include six ancillary services that the Commission identified as necessary for the transmission provider to offer to transmission customers: "(1) Scheduling, System Control and Dispatch Service; (2) Reactive Supply and Voltage Control from Generation Sources Service; (3) Regulation and Frequency Response Service; (4) Energy Imbalance Service; (5) Operating Reserve--Spinning Reserve Service; and (6) Operating Reserve--Supplemental Reserve Service."<sup>86</sup> The Commission stated that these ancillary services "are needed to accomplish transmission service while maintaining reliability within and among control areas affected by the transmission service."<sup>87</sup>

Earlier this year, the Commission completed a review of the first decade of experience under Order No. 888. In Order No. 890, the Commission concluded

84. 16 U.S.C. §§ 824d-e (2000). See also Order No. 888, *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, [Regs. Preambles 1991-1996] F.E.R.C. STATS. & REGS. ¶ 31,036, at p. 31,669 (1996), *order on reh'g*, Order No. 888-A, F.E.R.C. STATS. & REGS. ¶ 31,048 (1997), 62 Fed. Reg. 12,274 (1997), *order on reh'g*, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 F.E.R.C. ¶ 61,046 (1998), *aff'd in relevant part sub nom.*, *Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom.*, *New York v. FERC*, 535 U.S. 1 (2002).

85. Order No. 888, *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmission Utilities*, [Regs. Preambles 1991-1996] F.E.R.C. STATS. & REGS. ¶ 31,036, at p. 31,634 (1996), 61 Fed. Reg. 21,540 (1996). [hereinafter Order No. 888].

86. *Id.* at pp. 31,703, 31,705.

87. Order No. 888, *supra* note 85, at p. 31,705. The Commission also stated that Order No. 888 will not affect or encroach upon state authority in such traditional areas as the authority over local service issues, including reliability of local service; administration of integrated resource planning and utility buy-side and demand-side decisions, including DSM [demand side management]; authority over utility generation and resource portfolios; and authority to impose non-bypassable distribution or retail stranded cost charges.

*Id.* at p. 31,782, n.544.

that further reforms were needed to address deficiencies in the pro forma OATT and thereby limit remaining opportunities for undue discrimination.<sup>88</sup> Noting its “broad remedial authority,”<sup>89</sup> the Commission’s actions to correct those deficiencies included responses to proposals submitted by commenters regarding the pricing and procurement of, and other issues related to, ancillary services.<sup>90</sup> Of particular relevance here, Alcoa observed that large customers such as aluminum smelters are capable of providing some ancillary services. In light of that capability, Alcoa argued that the Commission should require transmission providers to recognize that “load resources” (i.e., demand response) can be a substitute for generators providing ancillary services.<sup>91</sup>

The Commission agreed with Alcoa, finding that sales of ancillary services by “load resources . . . should be permitted where appropriate on a comparable basis to service provided by generation resources.”<sup>92</sup> In support of this finding, the Commission stated that “comparable treatment of load resources is consistent with” EPCRA section 1252(f), which, as discussed above, establishes a national policy to eliminate “unnecessary barriers to demand response participation in energy, capacity and ancillary service markets . . . .”<sup>93</sup> The Commission also stated that its finding was consistent with a report issued in August 2006 pursuant to EPCRA section 1252(e)(3), in which the Commission’s staff recommended that federal and state regulators consider whether to “allow appropriately designed demand response resources to provide all ancillary services including spinning reserve, regulation, and any new frequency responsive reserves.”<sup>94</sup> To implement this finding, the Commission modified

Schedules 2, 3, 4, 5, 6, and 9 of the *pro forma* OATT to indicate that Reactive Supply and Voltage Control, Regulation and Frequency Response, Energy Imbalance, Spinning Reserves, Supplemental Reserves and Generator Imbalance

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88. Order No. 890, *Preventing Undue Discrimination and Preference in Transmission Service*, [Regs. Preambles 2007] F.E.R.C. STATS. & REGS. ¶ 31,241, at P 39 (2007), 72 Fed. Reg. 12,266 (2007) (to be codified at 18 C.F.R. pts. 35, 37) [hereinafter Order No. 890].

89. *Id.* at P 42.

90. Order No. 890, *supra* note 88, at P 886.

91. *Id.* at P 887.

92. Order No. 890, *supra* note 88, at P 888. The Commission has since described this action in Order No. 890, stating:

Order No. 890 requires any public utility with an OATT . . . to allow qualified demand response to provide certain ancillary services. Specifically, we agreed with a request by Alcoa that load resources (*i.e.*, demand response) should be permitted to self-supply and sell ancillary services to third parties. In doing so, we also made clear that a Transmission Provider may use non-generation resources in meeting its OATT obligations to provide ancillary services, so long as those resources are capable of providing the service. Order No. 890 did not require Transmission Providers to purchase ancillary services from non-generation resources or generation resources.

Competition ANOPR, *supra* note 62, at P 44.

93. Order No. 890, *supra* note 88, at P 888 (citing Energy Policy Act of 2005, Pub. L. No. 109-58, §1252(f), 106 Stat. 594, 941-46 (2005)); Energy Policy Act of 2005 § 1252(f).

94. Order No. 890, *supra* note 88, at PP 888, 890 (citing FERC, ASSESSMENT OF DEMAND RESPONSE & ADVANCED METERING-STAFF REPORT 97-100 (2006)). The Commission also stated that “Alcoa’s assertion that certain loads’ location and load profile allows for the provision of reactive power to the transmission is consistent” with a report that Commission staff issued in February 2005. *Id.* at P 900 (citing FERC, PRINCIPLES FOR EFFICIENT AND RELIABLE REACTIVE POWER SUPPLY AND CONSUMPTION-STAFF REPORT 4, 27, 108 (2005)).

Services, respectively, may be provided by generating units as well as other non-generation resources such as demand resources where appropriate.<sup>95</sup>

The Commission's actions in Order No. 890 with regard to ancillary services provided by demand resources demonstrate that, consistent with its statutory responsibility to prevent undue discrimination, the Commission may (and, indeed, must) assume jurisdiction to regulate demand response and other distributed resources where those resources are capable of providing a product subject to the Commission's jurisdiction on a basis comparable to generators. It is also noteworthy that in Order No. 890, the Commission found this basis for regulatory action on demand response and other distributed resources applicable not only to ISO/RTO transmission providers, but also to areas where public utility transmission providers have not been approved as ISOs or RTOs. The Commission directed non-ISO/RTO transmission providers to make compliance filings that either revise their OATTs to reflect the revised non-rate terms and conditions set forth in Order No. 890, including the above-noted changes to the ancillary service schedules of the pro forma OATT, or "demonstrate that . . . previously-approved variations continue to be consistent with or superior to the pro forma OATT as modified by" Order No. 890.<sup>96</sup>

4. Demand response and other distributed resources are important to protecting the reliability of the interstate electric transmission system

The Commission plays a role in protecting the reliability of the interstate electric transmission system. Most notably, the EAct 2005 added a new section 215 to the FPA, which requires a Commission-certified Electric Reliability Organization (ERO) "to develop mandatory and enforceable Reliability Standards . . . subject to [the] Commission[']s review and approval. Once approved, the Reliability Standards may be enforced by the ERO, subject to Commission oversight or the Commission [may] independently enforce Reliability Standards."<sup>97</sup>

As the Commission has acted to protect the reliability of the transmission grid, it has also recognized that adequate opportunities for demand response and other distributed resources are important to that task.<sup>98</sup> Even prior to enactment of the EAct 2005, the Commission identified that contribution to reliability as a basis for assuming jurisdiction to regulate demand response. For example, in 2002, the Commission stated:

[D]emand response programs are within the Commission's jurisdiction over the transmission of electric energy in interstate commerce. PJM is responsible for

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95. Order No. 890, *supra* note 88, at P 888. Consistent with this finding, the Commission renamed Schedule 2 of the pro forma OATT so that it does not suggest that the service in question may be provided only from generation sources. *Id.* at Appendix C.

96. Order No. 890, *supra* note 88, at PP 137-39, 157-58. Order No. 890 also sets forth similar compliance filing requirements for ISO/RTO transmission providers. *Id.* at PP 157-58.

97. Order No. 693, *Mandatory Reliability Standards for the Bulk-Power System*, F.E.R.C. STATS. & REGS. ¶ 31,242, at P 3 (2007), 72 Fed. Reg. 16,416 (2007) (to be codified at 18 C.F.R. pt. 40) [hereinafter Order No. 693]; *See also* Energy Policy Act of 2005 § 1211.

98. Many other organizations have also identified "the considerable reliability potential of demand response." *See* William L. Massey, Robert S. Fleishman, & Mary J. Doyle, *Reliability-Based Competition in Wholesale Electricity: Legal and Policy Perspectives*, 25 ENERGY L.J. 319, 350-52 (2004) (describing studies issued by the NARUC and the General Accounting Office).

ensuring the short-term reliability of the interstate transmission system. When system reliability events require PJM to implement measures to protect the transmission system (*i.e.*, PJM declares a Maximum Generation Emergency), encouraging load reductions and the use of on-site generation is an important tool in maintaining transmission reliability. Since PJM's Emergency Load Response Program is an important tool enabling PJM to maintain transmission reliability during periods of capacity shortage, the Emergency Load Response program is thus within our jurisdiction.<sup>99</sup>

The Commission has built on this recognition in its implementation of the reliability provisions of the EAct 2005. The Commission initiated that implementation process in February 2006 by issuing Order No. 672.<sup>100</sup> In that order, the Commission reiterated the connection between demand response and reliability and stated that requiring franchised utilities "to develop adequate demand response as needed to help keep generation and load in balance" was an important reliability responsibility of the states.<sup>101</sup> The Commission added, however, that this state role did not preclude Commission action. The Commission expressed its intent to respect "these important state government functions," but further stated that such state responsibilities and the Commission's new authorities under the EAct 2005 "should be complementary and work in unison to ensure reliable electric service for our nation's electricity customers."<sup>102</sup>

The Commission continued to implement the reliability provisions of the EAct 2005 in March 2007 when it issued Order No. 693. In that order, the Commission approved 83 of 107 proposed Reliability Standards<sup>103</sup> and also reinforced its role in ensuring that demand response and other distributed resources are allowed to contribute to protecting reliability. Specifically, the Commission directed the ERO to make modifications to several Reliability Standards to reflect capabilities of demand response and other distributed resources.

In one such step, the Commission approved the ERO's proposal to define demand-side management as "all activities or programs undertaken by a Load-Serving Entity or its customers to influence the amount or timing of electricity they use," but also required a modification of that definition.<sup>104</sup> The Commission stated that load aggregators and industrial customers who do not take service through an LSE may play a role in meeting the Reliability Standards and, therefore, directed the ERO to modify its definition of demand-side management to cover not only activities undertaken by LSEs or their customers to influence the amount or timing of their electricity use, but also comparable activities undertaken by "any other entities."<sup>105</sup>

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99. *PJM Interconnection, L.L.C.*, 99 F.E.R.C. ¶ 61,139, at p. 61,573 n.18 (2002).

100. Order No. 672, *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, F.E.R.C. STATS. & REGS. ¶ 31,204 (2006), 71 Fed. Reg. 8662 (2006) (to be codified at 18 C.F.R. pt. 39) [hereinafter Order No. 672].

101. *Id.* at P 813.

102. Order No. 672, *supra* note 100, at P 813.

103. Order No. 693, *supra* note 97, at P 1.

104. *Id.* at P 1232.

105. Order No. 693, *supra* note 97, at P 1232.

The Commission also directed the ERO to make modifications such that demand response and other distributed resources that satisfy the ERO's definition of demand-side management will be allowed to be used to comply with Reliability Standards governing contingency reserves,<sup>106</sup> reactive power,<sup>107</sup> emergencies,<sup>108</sup> and planning the reliable bulk power system.<sup>109</sup> In connection with these modifications, the Commission made clear that these resources must be technically capable of providing the function required by a Reliability Standard.<sup>110</sup>

Thus, the Commission can point to several grounds that support regulatory action to facilitate demand response and use of other distributed resources. In addition to the explicit authority that the Congress assigned to the Commission in the EAct 2005 to promote the use of demand response and other distributed resources, the Commission's statutory responsibilities pursuant to the FPA justify its playing a role in regulating those resources.

#### IV. THE COMMISSION SHOULD EFFECTIVELY MANAGE THE OVERLAP OF FEDERAL AND STATE JURISDICTION WITH REGARD TO DEMAND RESPONSE AND OTHER DISTRIBUTED RESOURCES

The Commission may and should continue to take regulatory action to facilitate demand response and use of other distributed resources, for the reasons discussed above. Assuming jurisdiction, however, creates an overlap between the Commission's regulation of demand response and other distributed resources and state regulation of those resources. For this reason, it is important to consider how to most effectively manage this overlap of federal and state jurisdiction, such that the full potential benefits of demand response and other distributed resources accrue to the country's electricity consumers.

When the Commission has taken regulatory action to facilitate demand response, it has generally recognized and sought to respect the traditional role of the states in this area. These statements provide an important guide for the future, but more active management of the jurisdictional overlap also may be appropriate, particularly as the Commission takes steps to promote demand response and other distributed resources, consistent with the Congressional directives set forth in the EAct 2005.

One approach to managing the jurisdictional overlap would be for the Commission to seek to preempt state laws or regulations that conflict with its efforts to promote demand response and other distributed resources. Such preemption, however, would raise difficult legal issues and ignore important practical and political considerations. Enhancing coordination of federal and state initiatives on demand response and other distributed resources avoids those obstacles and offers a better way to manage the overlap.

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106. *Id.* at PP 330-333, 405.

107. Order No. 693, *supra* note 97, at P 1879.

108. *Id.* at P 573.

109. Order No. 693, *supra* note 97, at P 1232.

110. *Id.* at PP 334, 406, 573, 1879. The Commission stated that the ERO will develop the process for determining that technical capability through its Reliability Standards development process. Order No. 693, *supra* note 97, at PP 334, 406, 1879.



A. *In facilitating demand response through regulatory action, the Commission has recognized and sought to respect the traditional role of the states*

When the Commission has sought to facilitate demand response, it has recognized the traditional role of the states in this area. For example, when the Commission took action regarding demand response in the midst of the Western Energy Crisis of 2000-2001, it stated that “State regulators have the most significant authorities to encourage demand reduction measures.”<sup>111</sup> The Commission has also sought to respect that state role. The Commission has stated that its “intention is not to undermine existing state DSM programs or other state rules governing retail sales, but to promote complementary wholesale programs.”<sup>112</sup> Consistent with that intention, the Commission has emphasized that it is “not encouraging actions that violate state laws or regulations,” and that nothing in its orders “authorized [a] retail customer to violate existing state laws or regulations, or contract rights.”<sup>113</sup>

The Commission’s efforts to respect the traditional role of the states in regulating demand response have extended in one instance to approving a settlement that appears to preclude certain retail customers from participating in a wholesale demand response program. In July 2003, the Public Service Commission of the Commonwealth of Kentucky (Kentucky Commission) denied AEP’s application for its Kentucky operating company (Kentucky Power or AEP-Kentucky) to transfer functional control of its transmission facilities to PJM.<sup>114</sup> Later that year, the Commission established a hearing on, among other issues, whether it should apply PURPA section 205(a) to exempt AEP from provisions of Kentucky and Virginia law or regulations that would prevent AEP from voluntarily joining PJM.<sup>115</sup> After a Commission Administrative Law Judge issued an Initial Decision that recommended granting those exemptions,<sup>116</sup> the Kentucky Commission authorized AEP-Kentucky to transfer functional control of its transmission facilities to PJM, subject to the Commission accepting without additions, modifications, or conditions a stipulation entered in the Kentucky state proceeding.<sup>117</sup>

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111. *Removing Obstacles I*, *supra* note 56, at p. 61, 968.

112. *Id.* at p. 61,972. *See also Removing Obstacles to Increased Electric Generation and Natural Gas Supply in the Western United States*, 95 F.E.R.C. ¶ 61,225, at p. 61,771 (2001) (stating that “the Commission is promoting wholesale programs that complement existing state DSM programs or other state rules governing retail sales. Our goal is not to assert new jurisdiction but to work cooperatively with the states to achieve a common good.”); *PJM Interconnection, L.L.C.*, 95 F.E.R.C. ¶ 61,306, at p. 62,044 (2001) (stating that “the Commission views PJM’s Load Response Program as an adjunct to, rather than a competitor with, the DSM programs operated by LSEs . . .”).

113. *Removing Obstacles III*, *supra* note 71, at p. 61,679. *See also Removing Obstacles I*, *supra* note 56, at p. 61,972 (stating that “the Commission will allow . . . retail customers, as permitted by state laws and regulations, and wholesale customers to reduce consumption for the purpose of reselling their load reduction at wholesale.” (emphasis added)).

114. *New PJM Companies*, 107 F.E.R.C. ¶ 61,272, at P 3 (2004) [hereinafter *New PJM Companies*]. According to the AEP, the Kentucky Commission “denied Kentucky Power’s application, for a number of reasons, including concerns about the encroachment upon jurisdiction that it feared participation [in PJM] would entail.” Answer and Motion to Dismiss Complaint, *supra* note 78, at 13.

115. *New PJM Companies*, 107 F.E.R.C. ¶ 61,272, at p. 5 (citing 16 U.S.C. § 824a-1(a) (2000)).

116. *Id.* at PP 5-6 (citing *New PJM Companies*, 106 F.E.R.C. ¶ 63,029 (2004)).

117. 107 F.E.R.C. ¶ 61,272, at P 4.

The stipulation in the Kentucky state proceeding included the following provision regarding participation in PJM's demand response programs:

Any PJM-offered demand side response or load interruption programs will be made available to Kentucky Power for its retail customers at Kentucky Power's election. No such program will be made available by PJM directly to a retail customer of Kentucky Power. Kentucky Power may, at its election, offer demand side response programs to its retail customers. Any such programs would be subject to the applicable rules of the [Kentucky] Commission and Kentucky law.<sup>118</sup>

The stipulation also stated more generally that its terms "shall not be construed" to alter the jurisdictional authority of either the Commission or the Kentucky Commission.<sup>119</sup> On June 1, 2004, the Kentucky Commission, PJM, and AEP submitted the stipulation to the Commission as part of a settlement that would moot the issues in the pending Commission proceeding as to whether AEP should be exempted from provisions of Kentucky law and regulations that would prevent AEP from voluntarily joining PJM.<sup>120</sup>

The Commission approved the settlement without condition or modification, finding the settlement to be "a reasonable resolution of the complex matters at issue in this proceeding as they pertain to the laws, rules, and regulations of Kentucky."<sup>121</sup> The Commission did not comment on the substance of the stipulation provision regarding demand response, but summarized that provision as "provid[ing] that any PJM-offered demand side response or load-interruption programs will be made available to AEP-Kentucky for its retail loads (at AEP-Kentucky's election) and that no such program will be made available by PJM directly to a retail customer of AEP-Kentucky."<sup>122</sup> The Commission did note that the settlement "does not change the authority of this Commission or of the Kentucky Commission" and that "nothing in the Settlement exempts AEP from meeting the obligations of a PJM member and signatory to the relevant PJM Agreements."<sup>123</sup>

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118. Joint Explanatory Statement in Support of Offer of Settlement, *The New PJM Companies*, Docket No. ER03-262-009, Appendix A to Attachment A, at P 4 (F.E.R.C. June 1, 2004) [hereinafter Joint Explanatory Statement]

119. *Id.* Appendix A to Attachment A, at P 5.

120. Joint Explanatory Statement, *supra* note 118.

121. 107 F.E.R.C. ¶ 61,272, at PP 2, 15.

122. *Id.* at P 8 (describing P 4 of the stipulation).

123. 107 F.E.R.C. ¶ 61,272, at PP 15, 17. While the Commission supported the primacy of state regulation in this case, the practical result may be to deprive certain Kentucky retail consumers of the benefits of participating in wholesale markets with demand response. The Commission has not had further occasion to comment on the substance of the above-noted stipulation provision regarding demand response. The issue was placed before the Commission in a 2005 proceeding that involved a complaint about access to the PJM LRP, but that proceeding was resolved prior to issuance of a Commission order on the merits. In that proceeding, the PJM ICC alleged that AEP refused to satisfy its obligations under the PJM Tariff and had inappropriately blocked PJM ICC members from participating in the PJM LRP. Among other arguments presented in its answer to that complaint, AEP stated that the previous settlement governs participation by Kentucky customers in the PJM LRP. The Kentucky Commission agreed with AEP that pursuant to the previous settlement, "PJM may not make any LRPs available directly to any retail customer of Kentucky Power, including PJMICC members." PJM then proposed to register "all eligible [customers] that request to participate in the PJM [LRP as soon as possible]," subject to caveats including a statement that, pursuant to the terms of the previous settlement, "PJM will not enroll Kentucky end-use customers unless the [Kentucky Commission] indicates otherwise." In light of PJM's statements, the PJM ICC withdrew its underlying complaint. *See* Complaint of the PJM Industrial Customer Coalition, *PJM Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000, at 2 (F.E.R.C. Apr. 15, 2005); AEP's Answer and Motion to Dismiss Complaint, *PJM*

*B. Preempting state laws or regulations that conflict with Commission policies on demand response and other distributed resources would raise difficult legal issues and ignore other important considerations*

The Commission's recognition of and respect for the traditional role of the states in regulating demand response provides an important guide for managing the overlap of federal and state jurisdiction in this area. More active management of that jurisdictional overlap may also be appropriate, however, particularly as the Commission takes further steps pursuant to the Congressional directives set forth in the EPOA 2005 to promote demand response and other distributed resources. Although one approach to managing the overlap would be for the Commission to seek to preempt state laws or regulations that conflict with its efforts to promote demand response and other distributed resources, there are compelling reasons not to pursue that course of action. As discussed below, such preemption would both raise difficult legal issues and ignore important practical and political considerations.

The U.S. Supreme Court has stated that “[p]re-emption of state law by federal law can raise two quite different legal questions.”<sup>124</sup> One context in which preemption arises involves

the rule “that a federal agency may pre-empt state law only when and if it is acting within the scope of its congressionally delegated authority[,] . . . [for] an agency literally has no power to act, let alone pre-empt the validly enacted legislation of a sovereign State, unless and until Congress confers power upon it.”<sup>125</sup>

Applying that rule in its 2002 decision upholding Order No. 888, the Court stated that it must interpret the FPA “to determine whether Congress has given FERC the power to act as it has, and we do so without any presumption one way or the other.”<sup>126</sup> This same inquiry would apply if the Commission sought to preempt state laws or regulations on demand response and other distributed resources. For the reasons discussed above (see Section III, *supra*), the Commission has a strong argument that the Congress has given it the “power to act” regarding demand response and other distributed resources in appropriate circumstances, in light of the unassailable connection between demand response and wholesale rates in a competitive market and other considerations.

The other context in which preemption arises is a controversy that concerns “whether a given state authority conflicts with, and thus has been displaced by,

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*Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000, at 13-14 (F.E.R.C. May 19, 2005); Motion for Leave to Answer and Limited Answer of the Public Service Comm’n of the Commonwealth of Kentucky, *PJM Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000, at 2-3 (F.E.R.C. June 21, 2005); Supplement to the Answer of PJM Interconnection, LLC, *PJM Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000, at 3-4 (F.E.R.C. July 15, 2005); Notice of Withdrawal, *PJM Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000 (F.E.R.C. July 18, 2005).

124. *New York v. FERC*, 535 U.S. 1, 17 (2002).

125. *Id.* at 18 (citing *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 374 (1986)).

126. *New York*, 535 U.S. at 17. The Court further stated that “[b]ecause the FPA authorizes FERC’s jurisdiction over interstate transmissions, without regard to whether the transmissions are sold to a reseller or directly to a consumer, FERC’s exercise of this power is valid.” *Id.* at 20.

the existence of Federal Government authority.”<sup>127</sup> The Court has stated that “[e]ven where Congress has not completely displaced state regulation in a specific area, state law is nullified to the extent that it actually conflicts with federal law” or federal regulations.<sup>128</sup> Such a conflict arises when compliance with both federal and state regulations is a physical impossibility or when state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.<sup>129</sup> The Court has stated that there is a “presumption against preemption” in this situation, based on “the assumption that the historic police powers of the States were not to be superseded . . . unless that was the clear and manifest purpose of Congress.”<sup>130</sup>

This second type of preemption analysis would also apply if the Commission sought to preempt state laws or regulations on demand response and other distributed resources.<sup>131</sup> The Commission would have little basis for claiming in that analysis that it was the “clear and manifest purpose of Congress” to preempt *all* state laws and regulations in this area. Even in the EPAct 2005, which explicitly directed the Commission to promote demand response and other distributed resources as it fulfills its responsibilities under the FPA and PURPA,<sup>132</sup> the Congress described a state role in these areas, as well. For example, the Congress directed the DOE to work with states “to identify and address barriers to the adoption of demand response programs.”<sup>133</sup> Similarly, the Congress stated that it is the policy of the United States to encourage states to coordinate their energy policies on a regional basis “to provide reliable and affordable demand response services to the public.”<sup>134</sup> Toward that end, the Congress directed the DOE to provide technical assistance to states to assist them in “developing plans and programs to use demand response to respond to peak demand or emergency needs.”<sup>135</sup>

It would be a much closer call, however, if the Commission sought to preempt only the narrow class of state laws and regulations that preclude participation by retail customers in wholesale markets.<sup>136</sup> As a foundation for

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127. *New York*, 535 U.S. at 17-18 (citing *Hillsborough County v. Automated Med. Labs., Inc.*, 471 U.S. 707, 715 (1985); *Medtronic Inc. v. Lohr*, 518 U.S. 470, 485 (1996); *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 518 (1992)).

128. *Hillsborough County*, 471 U.S. at 713 (citing *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 699 (1984); *Fidelity Fed. Savings & Loan Ass’n v. De la Cuesta*, 458 U.S. 141, 153-54 (1982); *United States v. Shimer*, 367 U.S. 374, 381-83 (1961)).

129. *Id.* (citing *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963); *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941); *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. 691, 698-99 (1984)).

130. *New York v. FERC*, 535 U.S. 1, 17-18 (2002) (citing *Hillsborough County*, 471 U.S. at 715 (quoting *Jones v. Rath Packing Co.*, 430 U.S. 519, 525 (1977))).

131. The Court did not conduct this second type of preemption analysis in its decision on Order No. 888 “because the question presented does not concern the validity of a conflicting state law or regulation.” *Id.* at 18.

132. Energy Policy Act of 2005, Pub. L. No. 109-58, §1233, 119 Stat. 594, 965 (2005).

133. *Id.* §1252(d)(2).

134. Energy Policy Act of 2005 §1252(e)(1).

135. *Id.* §1252(e)(2)(C).

136. Substantively, the Kentucky Commission’s above-noted restriction on PJM making demand response programs available to retail customers of Kentucky Power would fall within this category. It is important to note, however, that: (1) the Commission accepted that restriction as part of a larger settlement that included a stipulation entered in a Kentucky state proceeding; and (2) the Kentucky Commission authorized AEP-Kentucky to transfer functional control of its transmission facilities to PJM, subject to the Commission

such preemption, the Commission could demonstrate that demand response directly and significantly affects wholesale rates (see Sections II and III.B.1, *supra*). Because ensuring the justness and reasonableness of those rates is one of the Commission's fundamental responsibilities under the FPA, the Commission could find that this class of state laws and regulations "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."<sup>137</sup> In addition, the Commission could find that these state laws and regulations constitute "unnecessary barriers to demand response participation in energy, capacity, and ancillary services markets [and, therefore,] shall be eliminated" consistent with the national policy that the Congress set forth in EPAct section 1252(f).<sup>138</sup>

Thus, Commission preemption of state laws and regulations on demand response and other distributed resources would raise difficult legal issues. The Commission could improve its chances of prevailing against a possible challenge in court by narrowly tailoring its preemption claim, but even that approach would ignore important practical and political considerations.

One such consideration is that significant barriers to increased use of demand response would remain in place even if the Commission preempted state laws and regulations that preclude participation by retail customers in wholesale markets. For example, preemption would not resolve a disconnect between wholesale rates regulated by the Commission and retail rates regulated by the states, which mutes price signals that are important to more customers providing demand response. In addition, advanced metering equipment gives consumers greater ability to provide demand response, and states largely oversee decisions about access to such equipment.<sup>139</sup> As a practical matter, demand response is unlikely to achieve its full potential without the support of state regulators, and

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accepting that stipulation without additions, modifications, or conditions. *New PJM Companies*, 107 F.E.R.C. ¶ 61,272, at PP 2, 4, 15.

137. *Hillsborough County*, 471 U.S. at 713.

138. Energy Policy Act of 2005 § 1252(f). Indeed, even some state regulators have stated that decisions about customer participation in wholesale markets must be left to the Commission. After the PJM ICC filed its complaint about access to the PJM LRP in April 2005, the Indiana Utility Regulatory Commission (IURC) submitted a protest that stated:

The complaint raises fundamental questions regarding the relationship and order of federal and state involvement in a transaction where a beneficiary of a traditionally state-regulated activity – the retail tariffed use of electric power – seeks to make direct use of a federally-approved tariff . . . . In the IURC's view currently, Indiana end-use customer participation in a federally-regulated tariff program involves both state *and* federal jurisdiction. The state regulator must exercise appropriate authority over the effects of such participation on matters subject to state regulation. The federal regulator must decide whether retail customer participation may occur and, if so, on what terms.

Notice of Intervention and Protest of the Indiana Utility Regulatory Comm'n, *PJM Industrial Customer Coal. v. PJM Interconnection, LLC*, Docket No. EL05-93-000, at 2-3 (F.E.R.C. May 19, 2005) (emphasis in original).

139. This statement of jurisdiction over advanced metering equipment is reinforced by EPAct 2005 section 1252(b), in which the Congress directed "[e]ach state regulatory authority" to "conduct an investigation and issue a decision whether or not it is appropriate for electric utilities to provide and install time-based meters and communications devices for each of their . . . customers to participate in time-based pricing rate schedules and other demand response programs." Energy Policy Act of 2005, Pub. L. No. 109-58, §1252(b), 119 Stat. 594, 965. A separate argument could be made, however, that to the extent that the Commission may have jurisdiction over demand response as a wholesale sale, the Commission should also have jurisdiction over the means to such a sale, including advanced meters.

Commission preemption could have the unintended consequence of discouraging needed federal-state cooperation in this area.

*C. Enhancing coordination of federal and state initiatives on demand response and other distributed resources offers the most promising approach to managing the jurisdictional overlap*

In light of the above-noted considerations associated with preempting state laws and regulations that conflict with the Commission's efforts to promote demand response and other distributed resources, the better approach to managing the jurisdictional overlap in this area involves enhancing coordination of federal and state initiatives. The Commission and state regulators are taking significant steps to improve such coordination.

In November 2006, the Commission and the NARUC jointly launched a Demand Response Collaborative to explore how to better coordinate federal and state approaches to demand response policies and practices. Commissioner Sam J. Ervin, IV of the North Carolina Utilities Commission, one of the co-chairs of the Collaborative, described the group's potential prior to its initial meeting, stating: "The improved understanding that these collaborative discussions will produce should help both federal and state regulators to develop improved demand response programs for the benefit of the customers whose interests we are charged with protecting."<sup>140</sup> Another co-chair, Commissioner Phyllis A. Reha of the Minnesota Public Utilities Commission, struck a similar tone in remarks for the Collaborative's initial meeting, stating:

Demand response deserves serious attention. As a start we need to consider approaches, including how to eliminate regulatory barriers to improved participation in demand response. We need to work cooperatively in finding demand response solutions. I am optimistic that although there are significant differences in each state's and region's approaches to demand response, we will find a way<sup>141</sup> to find compatible regulatory approaches to tap this untapped reservoir.

The initial meetings of the Collaborative have laid the groundwork for achieving that potential, as participants have shared lessons from experiences with demand response in various regions of the country and have begun discussions on important issues such as measurement, verification, and forecasting protocols for demand response and other distributed resources.

Another Commission initiative will complement the work of the Collaborative. The Commission recently established a new Energy Innovations Sector of its staff that will focus on demand response and other distributed resources, among other issues, in order to create additional expertise within the Commission on these technologies. An important responsibility of the Energy Innovations Sector is to organize outreach to state commissions on demand response and other distributed resources. These efforts will further bolster the

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140. Press Release, Federal, State Regulators Convene Collaborative Dialogue on Coordination of Electricity Demand Response Policies (Nov. 2, 2006), <http://www.ferc.gov/press-room/press-releases/2006/2006-4/11-02-06.asp>.

141. Phyllis A. Reha, Opening Remarks at the NARUC-FERC Demand Response Collaborative (Nov. 12, 2006), <http://www.naruc.org/displaycommon.cfm?an=1&subarticlenbr=514>.

Commission's ability to coordinate and facilitate activities related to demand response and other distributed resources at the state and federal levels.

#### V. CONCLUSION

There are many benefits associated with robust participation of demand response and other distributed resources in wholesale electric markets. To date, however, consumers have seen only hints of those benefits, in part because the Commission has only begun to focus attention on the demand side of the wholesale electric market equation.

The Commission has the authority to play a more aggressive role in the development of a fully enabled demand side of wholesale electric markets, including demand response and other distributed resources. By coordinating that role with state initiatives in this area, the Commission and the states together can bring the full benefits of demand response and other distributed resources to the country's electricity consumers.